

Rudiments of Infrastructure Finance and the Case for Singapore

By Ranjan Chakravarty and Joseph Cherian[†] (September 2015)

1. Introduction

The natural investors for steady, predictable, and sovereign- or alternatively-guaranteed cash flows from infrastructure assets are institutions such as sovereign funds, pension funds, endowment plans, insurance corporations and superannuation schemes, i.e., institutions attuned to longer-duration holding periods. As a consequence, it is not surprising that infrastructure, as a distinct asset class with its own allocation, is firmly in place in many pension and government funds' portfolios¹.

As the asset class matures, it needs capital markets scalability, risk sharing and marketability so that more investors can seamlessly allocate their infrastructure holdings using advanced portfolio management techniques available to institutional managers of already marketable asset classes. Herein lies the opportunity, which we argue needs to be formalized and implemented in a coordinated and organized fashion. We opine Singapore is the ideal location for the development of an infrastructure finance marketplace.

As we sift through the evidence and literature on infrastructure finance in this paper, it is clear that the opportunity is immediate, can be extremely value-adding for all stakeholders, and would be lucrative for any jurisdiction that can provide the wherewithal to establish a viable ecosystem. This paper sketches a roadmap of the opportunity, and builds the case for Singapore housing the financial expertise, human capital and ability to actualize it in the context of building up the next generation infrastructure finance hub and eco-system, particularly for Asia.

2. The Landscape

Invoking updated data from the 2013 Prequin Sovereign Wealth Fund Review², we note that among alternative investments, infrastructure accounts for the largest proportion in sovereign wealth funds' asset allocation. Of those that do invest in infrastructure, 79% have a dedicated allocation to it. Among long-term liabilities investors, though, less than 40% have a dedicated infrastructure allocation.

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Though infrastructure has become a *de facto* asset class already, we see it as having great potential to grow, once investors in the more liquid and long-term asset classes feel comfortable to reallocate assets to it. As infrastructure assets become more creditworthy and liquid, they would become more substitutable for other asset classes like fixed income, and as a result, the greater would be the potential for the infrastructure market to expand. The effort therefore, should be for liquidity to be created in this market on an organized basis, which would be possible only with a proper and regulated market structure, and well-capitalized institutions in each niche, viz. buyers, sellers and market makers.

Location wise, Asian sovereign wealth funds dominate the infrastructure asset class already. China leads, followed by Abu Dhabi, and then Singapore. The other wealth funds are elsewhere in Asia, ranging from Kuwait to Korea. The centroid of this geographic distribution is Singapore.

As it stands today, though, the risk management needs of this growing, but as yet strictly privately-held, asset class can scarcely be met. An ecosystem that provides regulation, dispute resolution, asset recovery, price discovery, market making, liquidity and settlement can enable critically necessary risk management for the sovereign funds, which is the immediate need for the infrastructure space.

As mentioned, Singapore clearly emerges as a prime location for an infrastructure finance ecosystem as it is at the physical intersection of all the major parties, is highly-rated, is business friendly with a fully functional and robust infrastructure and regulatory system, safe and easily accessible and itself a major investment participant. Additionally, Singapore is the leader in Asia in terms of knowledge, transparency and governance. The case is clear: Singapore can be a leading candidate for developing the infrastructure finance market.

3. Looking Ahead for the Asset Class

Global projections of real GDP point decisively towards a shift to the rapidly urbanizing emerging markets of the world, which predominantly are in Asia. It is significantly also represented in Latin America and Africa in the immediate upcoming decade. The major Western economies, who accounted for 58% of global GDP in 2000, are expected to account for less than 42% by 2030. However, Asia/Oceania will jump from 22.4% to 36% during this same period³. It is important to note that the areas of the greatest potential economic growth, also house the most rapidly growing urban areas of the world⁴.

A study by Price Waterhouse Coopers (PwC) confirms a shift in infrastructure spending. Emerging Asia's share of this spend is expected to increase from 30% in 2012 to 48% by 2025⁵. According to PwC's estimate, the projected size of the global infrastructure market is expected

to be around US\$9 Trillion by 2025, with about 50% accounted for by Emerging Markets, especially China and India.

By way of comparison, this is greater than the notional size of the global OTC market in commodities and equity-linked instruments combined⁶. Infrastructure spending thus provides for a viable and potentially value-adding ecosystem comprising of the buy side, the sell side, exchanges, clearing houses, ratings agencies, sovereign governments and related Public Private Partnerships (PPP), that can build this market in a systematic and organized manner.

On the demand side, The Pensions Institute confirmed in a 2010 study that the buy side views infrastructure assets as long term cash flows, which provide them with asset-liability management capability⁷. However, the OTC nature of the market would tend to inhibit this capability, forcing infrastructure to be clubbed with private equity-type investments. Hedging is therefore very approximate, “noisy” and dependent on listed infrastructure indices. The need for a clear, listed, transparent market is again apparent.

4. Evolving Nature of the Infrastructure Finance Product

We expect greater uniformity in infrastructure asset allocation across geographies, implying more standardization in product development, origination and appetite as the market matures, and by extension more trading, but not necessarily of the high frequency kind.

We see the future capital structure of infrastructure assets as threefold: (1) as tranche-based hybrids - in essence something very similar to Asset-backed and Mortgage-backed Securities, (2) as a form of REIT, which provides investors with liquid stakes in mature infrastructure assets and which receive special tax benefits and high dividend yields, and/or (3) as plain-vanilla deferred coupon (or accrued interest) bonds.

In terms of tranche activity, public pension fund ATP, which plays a key role in the Danish pension system, estimates that Senior Debt is expected to be 55 to 70% of the market, Mezzanine at 10 to 20%, and Equity at 20 to 25%⁸. It also expects the size of the market to be at over USD 30 Trillion.

This implies that Infrastructure is evolving in a direction similar to the Asset-backed Securities (ABS) market, and if governed right and managed transparently, could be in for explosive growth.

5. Sovereign Guarantees

A key component in any ABS transaction is the concept of a credit wrap, or recourse in the event of default or non performance. In a PPP world, this is provided by a sovereign guarantee,

in some cases backed by a multilateral agency. A case in point is the Indonesia Infrastructure Guarantee Fund (IIGF). It is a single window institution, which is both well capitalized and rated AA-, for the appraisal and approval of Public Private Partnership (PPP) projects requiring government guarantees – both multilateral lender supported and otherwise⁹.

The IIGF's presence notwithstanding, a recent highly-publicised Indonesian government-related incident, where the nature of a large infrastructure project was vastly altered during the course of its implementation, as well as with respect to the post-funding sovereign commitment (or lack thereof), has highlighted a potential need for reform of the infrastructure finance market from the PPP and sovereign guarantor perspective. It is one that requires careful pre-planning, sufficient transparency and governance, and time-consistent policies, along with the right sovereign credit assurance¹⁰.

In summary, it is imperative that the current lack of non-financial project performance guarantees for global markets, where consistent governance standards would be applied across countries, is addressed and implemented on a priority basis. This should also be part of the infrastructure finance ecosystem structure, similar to the Federal Guarantee for infrastructure bonds in the US.

6. Conclusion: The Ecosystem and Singapore's Competitive Advantage

In light of the evolving regulatory climate across the world today, as exemplified by the Dodd-Frank legislation and Basel III regulatory proposals, the continued OTC nature of the infrastructure asset class is not a preferred option. Indeed, a listed, transparent and efficient financial exchange ecosystem will be necessary for infrastructure as an asset class.

Apart from meeting all of the market-critical criteria, Singapore's performance from an infrastructure investment perspective has been outstanding - it has ranked as the world's most attractive market for infrastructure investment for two years running¹². All other structuring centres in the world come in at a much lower rank than Singapore in this space.

Singapore clearly is in possession of the complete suite of capabilities in driving Infrastructure Finance as an asset class forward. Given one of us has already mentioned this in the Business Times before¹³, we are now simply providing additional evidence that supports the hypothesis that Singapore is ideally positioned to build a complete and viable Infrastructure Finance ecosystem for Asia. This should deliver a promising future to what we expect to be the next multi-trillion asset class, which will be undoubtedly be the revolutionary equivalent of the ABS and REITs markets.

Endnotes / References:

¹https://www.preqin.com/docs/newsletters/inf/Preqin_INFSL_Nov_13_Sovereign_Wealth_Funds.pdf

²<https://www.preqin.com/docs/newsletters/inf/Preqin-INF-May-15-Sovereign-Wealth-Funds.pdf>

³<http://wallstreetpit.com/16641-the-projected-shares-of-real-world-gdp-through-2030/>

⁴http://www.citymayors.com/statistics/urban_growth1.html

⁵<http://www.pwc.com/gx/en/capital-projects-infrastructure/publications/cpi-outlook/key-findings.jhtml>

⁶http://www.bis.org/publ/otc_hy1504.pdf. Table 1, Pg 15.

⁷<http://www.pensions-institute.org/workingpapers/wp1103.pdf>

⁸<http://www.oecd.org/finance/private-pensions/49720977.pdf>

⁹<http://www.worldbank.org/projects/P118916/infrastructure-guarantee-fund?lang=en>

¹⁰“Indonesia scraps \$7b high speed rail project.” Straits Times, Singapore, Sept 5, 2015, pg. A30.

¹¹http://www.huffingtonpost.com/kevin-lu/world-bank-global-infrastructure-facility_b_4078840.html

¹²http://www.arcadis.com/Content/ArcadisGlobal/Docs/publications/Research/Arcadis_global_Infrastructure_Investment_Index_2014.pdf

¹³“Singapore can play key role in AIIB”, Op-Ed by Joseph Cherian, Business Times, Singapore, July 3, 2015. A version of this article also appeared in NUS Think Business, 3 July, 2015, entitled, “***Oh, behave! Why the AIIB can be a win for China and Asia.***” and *Caijing*, 24 August 2015 entitled, [为什么亚投行能为中国和亚洲带来双赢?](#)