

FRONTIER

Investing in Asian Infrastructure

Long form report preview



Frontier Advisors

Frontier Advisors has been at the forefront of institutional investment advice in Australia for over two decades and provides advice over more than \$400B in assets across the superannuation, charity, public sector and higher education sectors.

Frontier's purpose is to enable our clients to generate superior investment and business outcomes through knowledge sharing, customisation, client empowering technology and an alignment and focus unconstrained by product or manager conflict.

Frontier has conducted detailed analysis on Asian infrastructure, it understands the region, having visited some of the key markets and spoken to local stakeholders about their infrastructure needs. We trust you will enjoy this preview report and we look forward to liaising with you on Asian infrastructure.

[Please contact us for further information on accessing the full report.](#)

Synopsis – Investing in Asian infrastructure

Asia is a vast market full of investment opportunities, the range and quality of which vary significantly depending on the local market, sector and countries' readiness. Investors should consider Asia but take a considered and thoughtful approach to investing in the region. Frontier has strong insights on the region and is able to assist in investors' Asian investment journey. As a starting point our Real Assets Team has produced a detailed and granular report to inform considerations and provide direction for potential investors.

The paper outlines a top down view of Asia as an investment destination for infrastructure, the stock and penetration of which lags those of developed markets. Asia is a unique and rich amalgamation of many distinct cultures, languages, geographies, political and socio-economic environments. The region is one of the most diverse and is underpinned by a number of positive tailwinds including strong population growth; a relatively young, working-age population; some of the strongest economic growth rates globally (notably China, India, South-east Asia); it is the industrial engine of the world economy; and is experiencing growing income and wealth.

These are fuelling vibrant consumption and new investment markets. We are truly amidst the Asian Century – a period of rapid growth achieved in the region since the turn of the 20th century, with strong growth to continue over the course of the 21st century.

But behind the gloss of attractive economic growth and the demographic dividend, lies a harsh reality. There are 400 million Asians without access to electricity, 300 million without access to safe drinking water and an astonishing 1.5 billion without basic sanitation.

As we now understand, a solid and reliable foundation of essential infrastructure has been an enabler of economic growth and wealth creation in the West and the same is required in Asia today.

From an investment perspective, Asia can be divided into developed Asia and developing Asia. Developed Asia includes the first-world, mature and sophisticated economies of Japan, South Korea, Taiwan, Singapore and Hong Kong. While developing Asia defines economic powerhouses of China, India, the South-east Asian tiger economies (Thailand, Vietnam, Indonesia, Malaysia, Philippines, etc) as well as central and west Asia. For the purposes of this report, we focus on infrastructure equity investments in developed and developing Asian nations, where markets for infrastructure exist and are attractive for foreign capital.

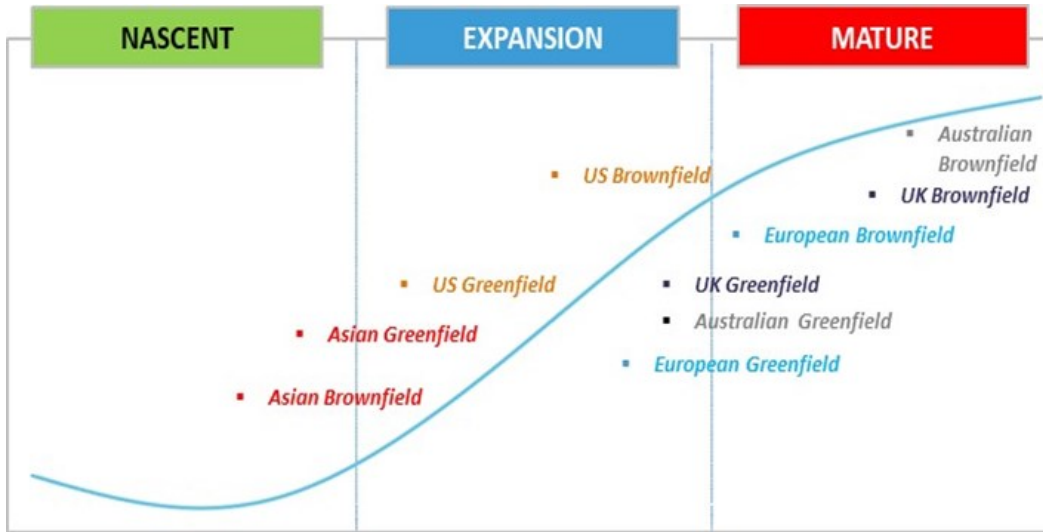
Asia is a nascent and developing market for infrastructure (refer to Chart 1) and according to the Asian Development Bank requires US\$26 trillion of new infrastructure investments in essential services between 2016 and 2030 or US\$1.7 trillion annually (refer to Chart 2). From a foreign investor's perspective, the region is under-penetrated, under-explored and rife with opportunities in a number of infrastructure sub-sectors, as explored in the paper. Post COVID-19, Asian governments' and Asian developers' finances are likely to be further stretched, which may hamper their ability to fund vital infrastructure. This may help increase the availability of attractive infrastructure investment opportunities.

Asia is not a single homogeneous market, but one with a variety of opportunities and risk/returns that can be compelling. Developed Asia (Japan, South Korea), with an ample stock of infrastructure and returns akin to those in developed OECD markets, is experiencing a renaissance. While developing Asia (India, Philippines, Indonesia, etc.) has vast needs but not the financial capacity nor the ecosystem to bridge the infrastructure deficit, particularly in the current COVID-19 impacted environment. On the other hand, China has the financial wherewithal to develop vast stock of infrastructure simply through government funding. We must also caveat that Asian infrastructure is not without its challenges: investment fundamentals, rules, regulations, business norms and growth vary widely across Asian nations.

Numerous investment managers, global pension funds and sovereign wealth funds have invested in or are commencing investments in Asia. We review the strategies adopted, products currently available, as well implementation considerations for a new institutional investor contemplating entering Asia.

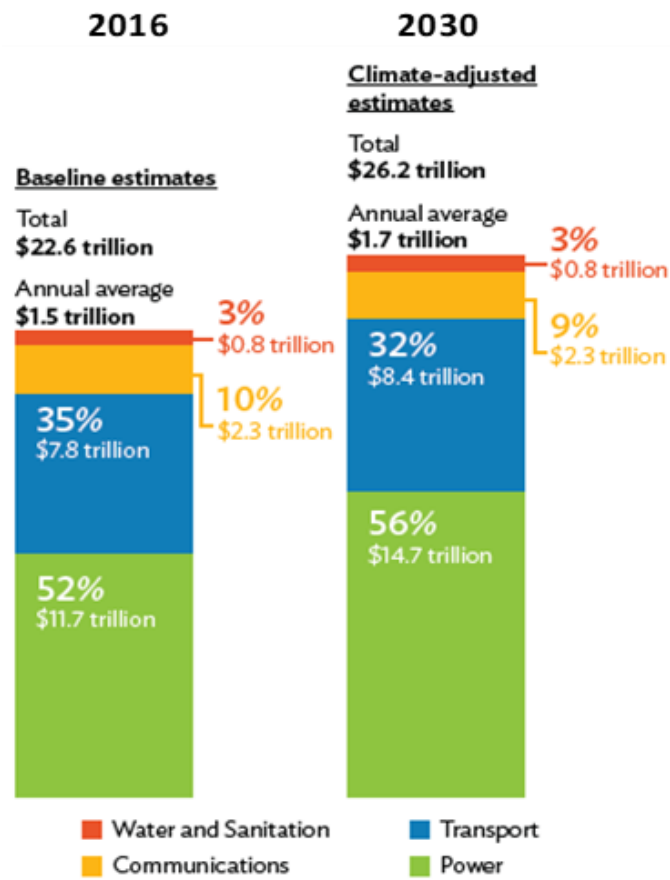
Frontier has conducted detailed analysis on Asian infrastructure, it understands the region, having visited some of the key markets and spoken to local stakeholders about their infrastructure needs. Please contact us via AsianInfra@frontieradvisors.com.au if you would like to learn more about this report.

Chart 1: Global infrastructure maturity cycle



Source: Frontier research, manager data.

Chart 2: Infrastructure investment requirements in Asia



Source: Asian Development Bank.

A small sample of topics covered in the report

Key countries of focus

We believe Asian markets can be tiered for infrastructure investment attractiveness based on factors such as: i) receptiveness to foreign capital; ii) ability to generate recurring deal flow; iii) ability to provide attractive risk-adjusted returns; iv) economic, demographic, socio-political strength; and v) level of legal and sovereign protections offered. Attractiveness of infrastructure opportunities will vary from country to country and will be sub-sector specific.

Greenfield infrastructure vs. brownfield infrastructure

It is evident that most countries in Asia are primarily development or greenfield infrastructure markets. In fact, over the last three years, greenfield projects have outstripped brownfield transactions and the favoured destinations for these transactions have predominantly been India, Japan, China and Indonesia. All four markets have been particularly fertile for development of renewable energy plants utilising photovoltaic solar and wind turbine technologies, while China, Indonesia and India have also seen a significant jump in the development of conventional power plants and transport (roads) infrastructure. Japan has also closed a number of airport privatisations.

Renewables generation

The large power generation deficit and relatively low power consumption means that development of renewable power generation is a common thematic across most Asian markets. In fact, in several Asian markets, renewable energy is a cheaper form of power generation than conventional thermal (coal, gas) power. Asian governments recognise this phenomenon and are fast-tracking a transition to clean energy.

Surface transport – roads, railways

Roads, highways and rail are the building blocks of transport infrastructure in Asia and almost all markets are addressing challenges of insufficient road capacity, congestion in urban centres and poor or deteriorating quality of their surface transport infrastructure. We believe toll or availability-based roads are one of the more attractive infrastructure sub-segments.

Limited equity market correlations as a proxy for infrastructure diversification

Given the lack of long-term data on infrastructure investments across Asian nations, we have relied on the correlations of a number of Asia nations' equity indices versus the Australian equity index as proxies for the diversification benefits of Asian infrastructure.

Required returns in Asia

Asian infrastructure can offer higher growth relative to growth in OECD infrastructure but also higher risk. Relative to an OECD investment, the required return in Asia will incorporate a higher risk free rate as a starting point, as well as higher market risk premium to compensate investors for the additional risk. There are several approaches to quantifying the total returns required for investing in Asian infrastructure.



Policies and incentives to encourage infrastructure investments

Various countries across Asia have implemented laws and structures to encourage foreign investment as well as investment into infrastructure specifically. There are a large number of such programs, some of which can be very specific on the investment type or very regionally specific. Many of these operate via more attractive tax treatment of the targeted investments, but other schemes also exist.

Lessons learnt and why it's different this time

While Asian markets have experienced difficulty in the past in establishing a track record of successful investments and returns for foreign investors, those difficulties are slowly dissipating. Asian nations have come a long way in recognising and formalising the role of infrastructure in enabling sound economic growth and prosperity for its citizens. Looking forward, we believe the path to infrastructure investing in Asia is not just transforming but also encouraging for global investors.

Environmental, social and governance considerations

Addressing ESG risks is paramount to investing in Asia. Domestic companies, even in developed Asia, demonstrate poor or inconsistent adherence to environmental standards, governance, health and safety. While investing in renewable generation, and geothermal power generation is environmentally friendly, these are not enough. We believe investors should pay heed to a number of environmental and social considerations.

Infrastructure managers and investors active in Asia

Asian SWFs, Asian pension funds and Macquarie Infrastructure and Real Assets (MIRA) were pioneer investors in Asian infrastructure since the early 2000s. MIRA initially invested through country-based equity funds, followed by Pan-Asia funds. Since then, several managers have launched new equity strategies for Pan-Asia, sector specific (particularly renewable energy) or region specific equity funds. Prior to the recent arrival of several prominent infrastructure managers, global pension funds and sovereign wealth funds had established bases, relationships and track record of investing across the major markets of Asia for a prolonged period.



Topics covered

- **Executive summary**
- **Introduction to Asian infrastructure**
- **Macroeconomic fundamentals of Asia**
 - Overview of Asia
 - Developed versus developing Asia
 - Macro-economic and demographic trends for Asian growth economies
 - Volatility in Asian economies
- **Asian infrastructure market overview**
 - Infrastructure market indicators
 - Infrastructure market rating
 - Key countries of focus
 - Market focus
 - Infrastructure policies and programs for key Asian markets
 - Attractive sectors by country
 - Role of multi-lateral agencies and development programs
- **Diversification benefits of asian infrastructure**
 - Limited equity market correlations as a proxy for infrastructure diversification
 - Diversification through Asian currencies
- **The investment case: Expected returns in Asia**
 - Required returns in Asia
 - Return expectations vs. manager targeted returns
 - Investment returns evidence
 - Inflation
 - Currency hedging
 - Policies and incentives to encourage infrastructure investments
 - Legal frameworks
 - Tax considerations for foreign investors
- **Challenges and lessons of investing in Asia**
 - Challenges of Asian infrastructure investing in early 2000s to 2010s
 - Contemporary challenges
 - Lessons learnt and why it's different this time
- **Environmental, social and governance considerations**
 - UN's sustainable development goals
 - SDG 13: Climate action
 - ESG challenges in Asia
- **Implementation considerations**
 - Implementation structures
 - Infrastructure managers and investors active in Asia
 - Key manager considerations
 - Benchmarking returns
- **Why invest in Asia?**
- **Recommendation**
- **Appendices**

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