

AEW RESEARCH

ASIA INFRASTRUCTURE

CREATING CAPACITY AND CONNECTIONS



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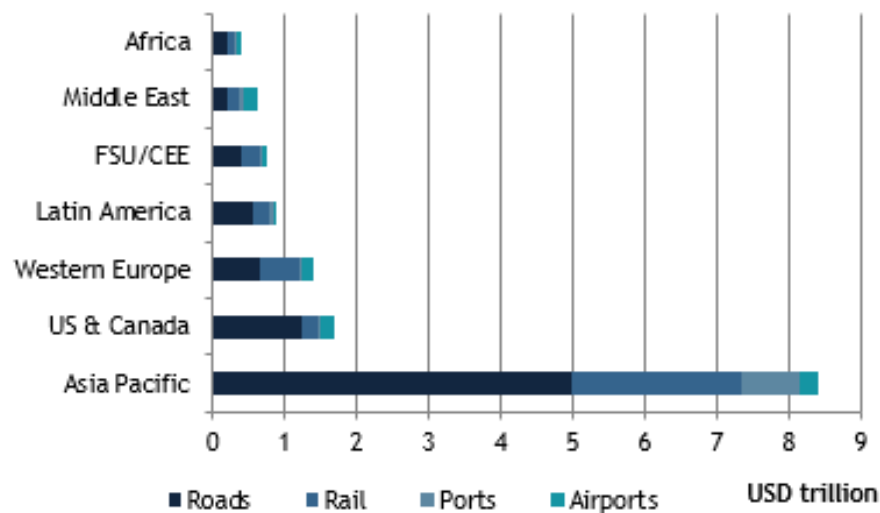
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During the most recent US presidential election cycle, spending on US infrastructure was a frequent topic of stump speeches. Most people can agree that the US needs significant investment in its aging airport, highway, and mass transportation systems. Against that backdrop, the massive investment being made on the other side of the world in Asia-Pacific's transport infrastructure has been underappreciated. Countries throughout the region are providing for their future by significantly investing in their transport-related assets. Airports are being expanded, and new roads and rail lines are being built. Together, these improvements are bringing cities closer, by reducing travel times, and improving the cross-border movement of people and goods. They are also enhancing public transport networks, increasing the efficiency with which people are moving around their cities. Coupled with strong economic fundamentals, including the world's largest middle class and a rapidly developing consumer base, the outlook in general for property markets in Asia-Pacific is quite favorable. With the long-term investment horizon typical of many institutional investors, a real estate allocation to the Asia-Pacific region should present many opportunities for real estate investments geared toward capitalizing on these favorable dynamics.

BUILDING WORLD-CLASS CITIES

Countries in the Asia-Pacific region are forecast to invest considerably in developing their transport infrastructure. The region's investment in transport infrastructure is projected to grow from approximately \$557 billion in 2014 to approximately \$900 billion per year by 2025, a 62% increase in annual spending (Figure 1).¹ In comparison, Western Europe's investment, which has been constrained in recent years, is only anticipated to return to 2008 levels by 2022. In the US and Canada, investment is expected to grow by just 3% per year over the coming decade, resulting in a decline in their global transport spending from 14% in 2014 to 11% by 2025.

Figure 1: Cumulative Transport Infrastructure Spending to 2025



Source: PWC, Oxford Economics

1. PWC & Oxford Economics, Assessing the Global Transport Infrastructure Market: Outlook to 2025.

By increasing the region's capacity to transport goods and services (including the movement of people), on top of improving the efficiency of travel, such investment should contribute to sustained economic growth. The investment directly contributes to growth during the development phase through the design, planning, and construction phases. More important, it sets the foundation and creates the capacity for future growth. By constantly enhancing and refreshing the backbone of the economy, these Asia-Pacific countries are providing the capacity for future growth and building more competitive global cities.

Much of this investment will be in the region's gateway cities, and many already have world-class transport infrastructure assets and networks. However, as opposed to complacency with the status quo, many governments in the region recognize the importance and the future growth needs of the cities and continue to invest in the further development of their transport infrastructure.

This investment is across an array of different types of transport-related assets. Cities are expanding the capacity of their airports, building new roads and rail lines, and extending the reach of metro systems. Connectivity is the common goal of these projects. By investing in additional capacity to move more people and goods around, these cities are developing the essential infrastructure that underpins the Asia-Pacific region's future. Projects are linking people and businesses within cities as well as increasing the connectedness of cities. For example, China's high-speed rail network has significantly reduced the overland travel time between cities and become a serious alternative to air travel. The scale is immense too; the long-term plan is to have 18,600 miles of high-speed rail, covering more than 80% of its cities.

WHY MAKE THE INVESTMENT?

The build-out of additional transport-related infrastructure assets is necessary and a reflection of the long-term structural shifts still occurring in the region, including the growth of the middle class and urbanization. A 2017 Brookings Institution study concluded that the Asia-Pacific region has the largest share of the world's middle class—almost one-half (45%)—and the vast majority of the next billion middle-class constituents will come from the region.² Moreover, by 2025 about one-half of global spending by the middle class is forecast to come from Asia-Pacific countries.

More people live in cities than ever before, and research has shown urbanization advances productivity, improving country and household wealth.³ Asia-Pacific's urban population is forecast to grow by nearly 2% per annum through 2026, raising its urbanization rate from 54% in 2016 to 61% in 2026. In contrast, urban growth rates in Europe and the US are less than 1% per annum. And this growth is visible in the Asia-Pacific region's gateway cities. For example, between 2015 and 2025, the collective population of Sydney, Shanghai, Hong Kong, Seoul, and Singapore is forecast to grow by 19%, or 1.2% per annum, while the combined population of New York and London is forecast to grow by only 8%, or 0.6% per annum.⁴ Clearly, there is fundamental demand for Asian cities to proactively engage in additional transport-related infrastructure and allow for the development of further commercial space.

2. Homi Kharas, "The Unprecedented Expansion of the Global Middle Class: An Update," Brookings Institute, white paper, February 2017.

3. David E. Bloom and Tarun Khanna, "The Urban Revolution," Finance and Development, September 2007, Vol. 44, No. 3.

4. City population forecasts sourced from the United Nations Department of Economic and Social Affairs, World Urbanization Prospects: The 2014 Revision.

EXAMPLES OF THIS INVESTMENT

The following are just a few examples of the long-term transport-related investments being made to enhance the prospects of the region's gateway cities.

AIRPORTS

Hong Kong, Singapore, Seoul, Beijing, Shanghai, and Sydney all have projects to improve their airport capacity. For example, Singapore's Changi Airport passenger traffic in 2004 was 30 million. By 2016, the number had almost doubled to 58.7 million. All the while, the airport continued to provide a superior customer experience (air travelers have voted Changi Airport the World's Best Airport five years in a row⁵). Changi is investing for further growth, with the opening of the fourth terminal in 2017 and the fifth planned for sometime around 2025. Terminal 5 will be capable of handling 50 million passengers in its initial phase, bringing the airport's total capacity to 150 million. According to the Airports Council International, this will be more than the world's current busiest airport, Hartsfield-Jackson Atlanta International Airport, which had passenger traffic of 101.5 million in 2015.



Singapore, Departure Hall, Changi Airport; EQRoy / Shutterstock.com



Australia, Subway Station, Sydney

METRO NETWORKS

Hong Kong, Singapore, Shanghai, Beijing, and Sydney are all adding to their metro systems. Perhaps the most impressive is the rapid development of Shanghai's metro system. At the end of 2008, Shanghai's metro had eight lines with 162 stations across 146 miles of track. By the end of 2016, it had expanded to 14 lines with 366 stations across 383 miles of track and is planning for another 155 miles of track by 2025.⁶ In Sydney, the New South Wales government is rapidly moving ahead with the development of 31 new metro stations and 41 miles of new metro rail.⁷



Hong Kong, Hong Kong-Zhuhai-Macao Bridge Over Lingdingyang Channel; EQRoy / Shutterstock.com

ROADS

Projects are also under way to further enhance the region's road networks. The \$2.3 billion Hong Kong-Zhuhai-Macao Bridge is due to be completed by the end of 2017. It will be the world's longest bridge-tunnel sea crossing with dual three-lane carriageways. The road will connect the lower Pearl River Delta region, significantly improving travel time and Hong Kong's connectivity to the delta. The New South Wales government has committed

5. Skytrax World Airport Awards, 2017.

6. All Shanghai metro data is sourced from the operating company, Shanghai Shentong Metro Group Co., Ltd.

7. Sydney Metro City & Southwest, Final Business Case Summary, October 2016.

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to spend approximately \$50 billion over four years on transport infrastructure, including \$2 billion on Sydney's WestConnex (an integrated road transport plan) and \$236 million on road upgrades related to the new Western Sydney Airport.⁸

IMPLICATIONS FOR PROPERTY INVESTORS

Institutional real estate investing involves strategic allocation decisions over the long-term and is an investment in the long-run potential of the real economy. AEW believes commercial properties are a factor of production in the economy. When the economy grows, businesses expand and some portion of their excess economic profit can be capitalized in the value of the property through higher rents.

Government investment in the region's transport infrastructure contributes to the positive regional economic growth outlook and is a critical part of this process, and governments providing the additional capacity for further, long-term, growth is promising. By increasing the connectedness of the region, governments are making it easier for goods to trade and ideas to flourish. The enhanced ability of people to move around and communicate is encouraging for the service industry. Sectors such as tourism and the provision of professional services can be expected to benefit, creating demand for commercial real estate such as retail, office, and hotel properties. Gateway cities benefit from the growth of the service sector because the large majority of their economies is service related.

For real estate investors, following local infrastructure investment can be a driver of outperformance and capital appreciation, as investments in the real estate sector will benefit from the improved connectedness as demand from businesses and consumers grows. An asset in close proximity to new metro stations, for example, will clearly benefit from the improved public transport access via the capitalization of higher rents. Investors should invest in assets alongside of or in conjunction with infrastructure-related enhancements. In addition to benefiting from the capital appreciation opportunity and by selecting investment opportunities in proximity to these developments but ahead of their completion, investors will benefit through the capitalization of higher rents.

A city's infrastructure base is a major consideration in real estate development investment. A survey of the global real estate industry reported that the quality of a city's infrastructure is the major consideration for real estate developers when deciding where to invest.⁹ Well-maintained roads and bridges and good passenger connections to other cities ranked highly as factors that influenced developers' decision-making.

CONCLUSION

Countries in the Asia-Pacific region are largely continuing to significantly expand their transport infrastructure, and in effect, they are building their own future as they provide the extra capacity for additional growth. Real estate investors can benefit from this trend over the long-term as economies grow and in the short-term by investing alongside these enhancements.

8. As reported by news.com.au on June 21, 2016.

9. Colin Galloway and Rachel MacCleery, Infrastructure 2014: Shaping the Competitive City, ULI and EY.