Click image for full magazine

Emerging markets & infrastructure

By Sarah **SHAW**

The expected rapid growth in emerging market economies over the next 30 years will alter consumption patterns in these countries and drive the need for new infrastructure investment. This investment will in turn reinforce that growth and change in consumption.

Construction site of the bridge "Rio Negro" over the river Rio Negro to Iranduba, Brazil

Emerging Market (EM) economies are expected to grow rapidly over the next 30 years, altering the current world economic order which has been in place for much of the post-World War II period. For example, PwC expects the 'Emerging 7' (China, India, Brazil, Mexico, Russia, Indonesia and Turkey) to grow significantly and displace some of the G7's (Canada, France, Germany, Italy, Japan, UK and USA) current share of world GDP (see Figure 1).

The PwC view is supported by other research. For example, a January 2019 Standard Chartered research piece suggests EMs will provide seven of the world's ten largest economies by 2030, with China the largest.

What is driving this change in the world economic order?

There are several compelling forces driving this change. Here we focus on two critical ones and how they influence infrastructure investment – the *emerging middle class*; and government policy initiatives such as China's '*The Belt and Road*' initiative.

1. The emerging middle class

A recurring theme over the past few years has been, and remains, the importance of the emerging middle class. The Brookings Institute believes the global middle class will grow rapidly over the coming years (Figure 2).

These changes will themselves drive changes in aggregate demand; have significant implications for global business opportunities; and drive the need for new infrastructure investment.

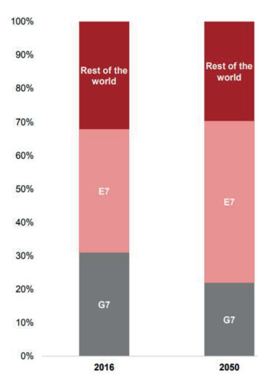
Looking at it from an individual's perspective, as personal wealth increases, consumption patterns inevitably change. This starts with a desire for three meals a day; moves to a demand for basic essential services such as clean water, indoor plumbing, power and gas; and progresses over time to include services that support efficiency and a better quality of life, such as travel – with an increasing demand for quality roads (on which to drive that new scooter and then car) and airports (to expand horizons).

>

Figure 1: Rankings of GDP at PPPs

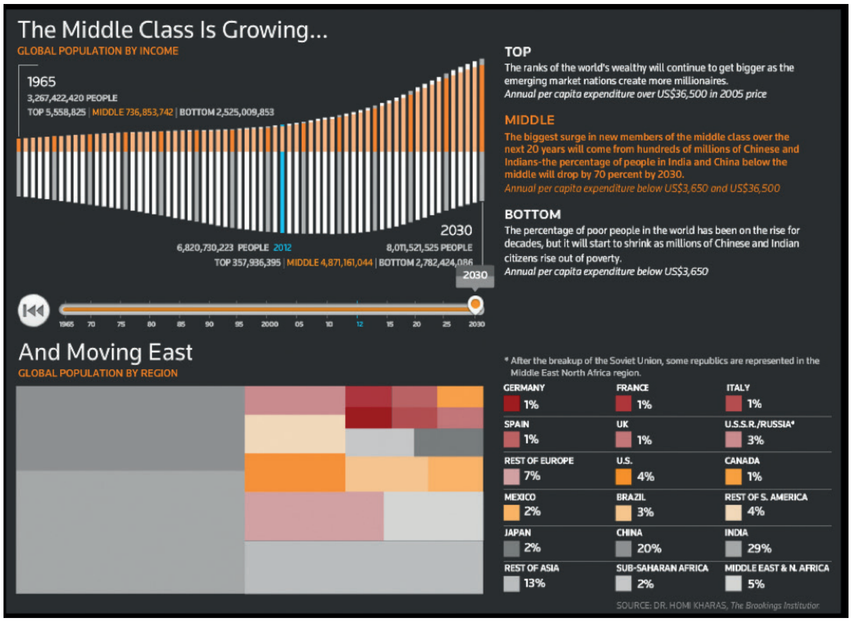
2016			2050
China	1	1	China
US	2	2	India
India	3	3	US
Japan	4	4	Indonesia
Germany	5	5	Brazil
Russia	6	6	Russia
Brazil	7	7	Mexico
Indonesia	8	8	Japan
UK	9	9	Germany
France	10	10	UK

Share of world GDP at PPPs



Source: PwC: The World in 2050. How will the global economic order change – February 2017

Figure 2: Demographics and geography



Importantly, one of the clear and early winners of this growth in the middle class is infrastructure, which is needed to support the evolution.

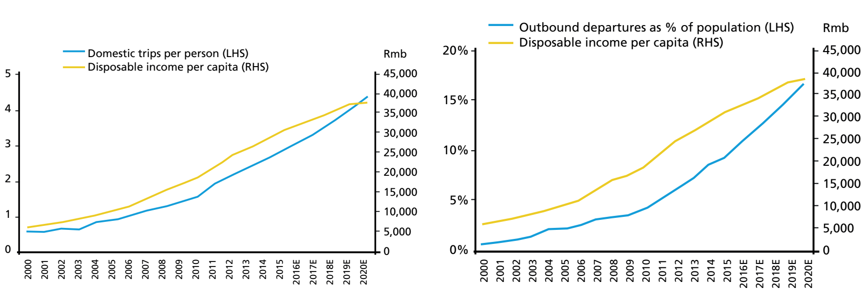
For example, studies show that as disposable income grows, so too does the amount of travel undertaken by residents, both domestically and overseas (see Figures 3 & 4). For example, less than 10% of Chinese nationals currently hold a passport (compared to over 40% of Americans) – yet airports globally are recording record passenger numbers, driven by Chinese travelers.

There is also a strong correlation between growth in GDP/capita and vehicle ownership. China, India and Indonesia (approximately 40% of the global population) all currently have low levels of vehicle ownership. However, this will grow as each nation's GDP per capita climbs. As a result, demand for new cars can be expected to be strong, as will demand for new and improved road infrastructure.

One of the clear and early winners of this growth in the middle class is infrastructure, which is needed to support the evolution.

To put this in perspective, China's motor vehicle penetration is about 15% – yet annual motor vehicle sales in China (28 million vehicles in 2018) have outpaced the USA (17 million) since 2009. An infrastructure investor doesn't mind what car someone is driving, as long as they are driving it on their road.

Figure 3 & 4: Impact of rising disposable income/capita in China on travel by Chinese residents



Source: Why we are bullish on China, Morgan Stanley Research, blue paper: February 2017

2. The Belt and Road initiative (BRI): it will transform Asia and propel its growth and infrastructure development

The BRI is a major Chinese foreign and economic policy initiative. It involves huge investment in infrastructure (among other things) needed to facilitate the BRI's trade objectives. China has signed up more than 70 countries to the initiative and is looking to spend more than $800 billion over the next five years. (See Figure 6).

EM economies and infrastructure investment: natural partners

The complementary nature of EM economic growth and infrastructure investment goes further. Infrastructure offers investors access to the attractive EM domestic demand story while mitigating some key EM investment risks, thus presenting a very attractive way to gain EM exposure. Key EM risks mitigated via infrastructure investment include:

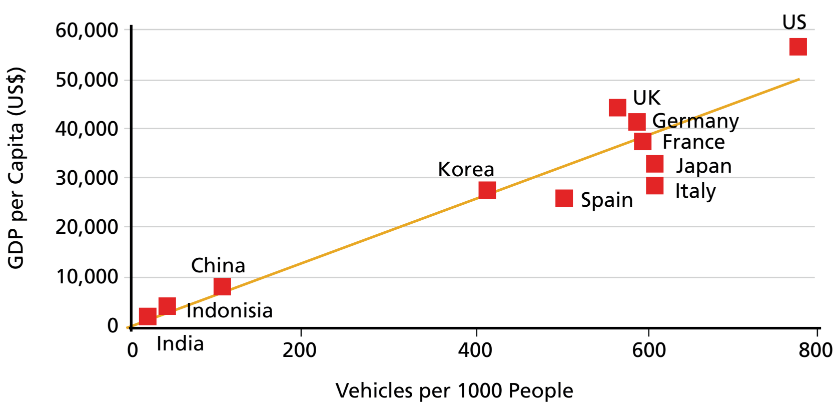
• Inflation: look for the hedge

A core concern for EMs over the medium term is domestic growth-driven inflationary spikes, often driven by an event that disrupts food sources or fuel supplies. The infrastructure asset class provides investors access to the upside of this strong EM GDP growth while explicitly hedging against inflationary pressure (infrastructure regulation and contracts provide for an inflation hedge), mitigating one of the key EM investment risks.

• Beware of the benchmarks: not all MSCI EM index constituents provide full EM exposure

When looking for EM exposure, an investor needs to make sure they are getting EM exposure. Investors seeking access to the EM domestic growth story should be wary of some of the constituents of the EM indices. While some stocks are listed in an EM country, they may have underlying earnings drivers not correlated to EM growth, but rather global demand.

Figure 5: China/India's auto penetration vs. developed nations, 2015



Source: Why we are bullish on China, Morgan Stanley Research, blue paper: February 2017

Figure 6: The new Silk Road or 'BRI'

Source: Economist, 2017

EM infrastructure investment provides exposure directly correlated to in-country domestic demand.

For example, Taiwan Semiconductors:
- is listed in Taiwan;
- made up 3.5% of the MSCI EM index in May 2019 and was the third-largest index weight; and
- in 2018 received ~80% of revenues from developed markets (64% from America alone), while only 9% were derived domestically in Taiwan.

So even though it represents a major component of the MSCI EM index, an investment in Taiwan Semiconductors is providing only very modest EM economic exposure. In sharp contrast, EM infrastructure investment provides exposure directly correlated to in-country domestic demand.

Further, as shown in the Figure 7, the MSCI EM offers investors quite high levels of cyclical exposure, with four of the top five stocks being IT-related. Taking the entire MSCI EM index, more than 80% is in cyclical sectors such as IT & Communications (27%), Financials (24%) and Consumer Discretionary (13%), while just 2.5% is in defensive Utilities – suggesting it would be difficult to position for the downside.

• Local EM governments: supportive of infrastructure development
EM governments and policy makers recognize the need for improved infrastructure to enable their economies to evolve. As they cannot facilitate all the investment needed, they are supportive of private investment in infrastructure assets to provide the essential services needed to facilitate economic growth and deliver improved living standards. While EM governments continue to need new infrastructure funded with private sector capital, investors should have confidence that acceptable investment returns will be supported.

• Distinct infrastructure sub-sectors: Utilities and User Pays
Infrastructure offers two macro diverse sub-sectors, which means an infrastructure portfolio can be positioned for all points of a macro cycle. Utilities meet basic needs and are largely immune to macro cycles, making them an attractive defensive, resilient asset class in depressed markets.

In contrast, User Pay assets (toll roads, airports, port and rail) are positively correlated to macro growth and represent a very attractive investment proposition in buoyant macro environments. Active management of these two infrastructure sub-sectors aims to smooth the >

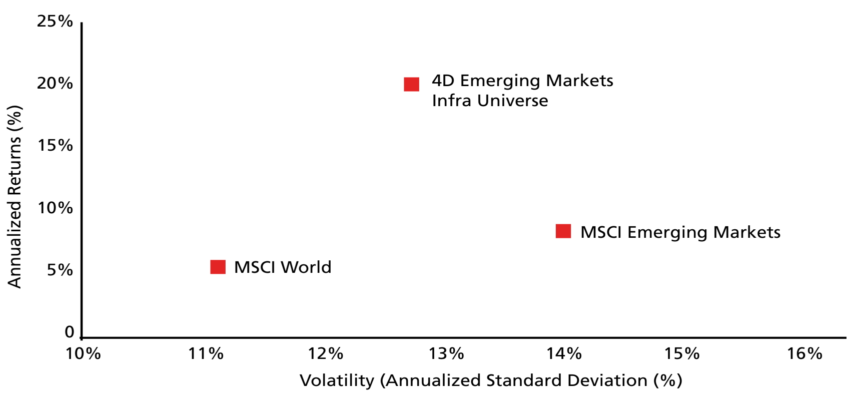
Figure 7: Top 5 holdings MSCI EM May 31, 2019

Company	Weight	Listing	Sector	2018 Revenues	
				Developed	EM
Tencent Holdings	4.5%	China	Info Tech	2.9%	97.1%
Alibaba Group	4.1%	China	Info Tech	27.7%	72.3%
Tawan Semiconductors*	3.5%	Taiwan	Info Tech	79.6%	20.4%
Samsung Electronics*	3.2%	South Korea	Info Tech	59.8%	40.2%
Naspers	1.9%	South Africa	Consumer Disc	29.2%	70.8%

Source Bloomburg, MSCI EM fact sheet and Company annual reports
**Some estimation on revenues split for divisions such as "Other"*

Jebel Ali Port in Dubai 4

Figure 8: EM Annualized Returns: December 31, 2003 to May 31, 2019



Source: Bloomberg & 4D

volatility of EM investment, again comparing favorably to the MSCI EM which favors the cyclicals.

As shown in Figure 8, history supports the view that infrastructure is an attractive way to gain exposure to EMs, offering investors better returns at lower volatility than broader EM equities.

Conclusion

EMs are expected to grow rapidly over the next 30 years, attracting huge infrastructure investment driven by forces such as the emergence of the new middle class and China's BRI. This is a good thing as EM and infrastructure are natural, complementary investment partners. They reinforce each other in a positive manner, while infrastructure investment can offer natural protection against some of the key EM risks, including the critical one of inflation.

Sarah **SHAW**

Sarah Shaw is Global Portfolio Manager & Chief Investment Officer, 4D Infrastructure. She has nearly 30 years of finance experience, including 18 years in global listed infrastructure. Shaw has particular expertise in emerging markets, with experience across developed Asia (including Australia), Europe and the USA. She has worked at AMP Capital Brookfield and RARE Infrastructure, and has also been involved in the successful launch and management of several listed infrastructure funds.

sarah@4dinfra.com