



THE SHAPE OF THINGS TO COME

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*Cover Image: 3D Render of microchip
architecture under a microscope*

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THE SHAPE OF THINGS TO COME

BY TIM ERSKINE-MURRAY

“The Edge’s spaceship arrived in the north of Dublin. Larry and myself and Adam just stood there and stared. A door opened and out came this astounding-looking man.

Larry said: ‘Who are you?’

And he said: ‘I am The Edge.’

And Adam said: ‘Where are you from?’

And he said: ‘The future.’

And I said: ‘What’s it like?’

And he said: ‘It’s better.’”

BONO – U2

To be equity investors we need to be optimists. To be growth equity investors, even more so. To be emerging market (EM) equity growth investors, we actually need something to bring the optimism levels down a bit. I support Arsenal FC and the Miami Dolphins – this works quite well. My teenage sons also challenge my optimism quite effectively. For example, at this point, there is little evidence to suggest that they can actually read this article. My EM colleagues have their own ways of tempering their optimism, most of them legal.

But despite our best efforts, and the autumnal Scottish weather, we can’t help remaining optimistic about the EM opportunity set. Cyclically, large parts of the universe are coming out of recession, while structurally we continue to find stocks that we believe can grow longer or faster than the market expects.

Also, areas such as healthcare are becoming more interesting as regulation improves and becomes more attuned to the commercial aspects of drug development. Over the long term, EM continues to produce exciting opportunities for investors and given the depth and breadth of many economies, we expect this to accelerate.

THE BIG PICTURE

Let's start with the cyclical grounds for optimism. Many emerging markets have been through a tough time. Brazil saw its GDP shrink (in current US dollar terms) from \$2.46 trillion in 2014 to \$1.80 trillion in 2016, a decline of nearly 27 per cent. Russia's GDP shrank from \$2.3 trillion in 2013 to \$1.28 trillion in 2016, a decline of 44 per cent. Likewise Mexico, whose economy shrank from \$1.31 trillion in 2014 to \$1.08 trillion in 2016, lower by 18 per cent. The South African economy peaked at \$416.42 billion in 2011 and had receded to \$296.34 billion in 2016, a fall of nearly 29 per cent. Unsurprisingly during these years our EM portfolios were overweight dollar-earning North Asian exporters.

In 2016, the parts of the EM universe that had been suffering started to turn the corner and, correspondingly, from 2017 onwards we've seen opportunities widen as parts of Latin America and Eastern Europe began to recover. Part of this was a function of interest rates which began to be cut in response to these severe recessions.

There was a hiatus in interest rate cuts in emerging markets in 2018, in response to a strong US dollar, as countries such as Indonesia looked to defend their currencies, but now the rate-cutting cycle has resumed, even in the US. So far in 2019, more than 30 countries have cut rates including Mexico, the Philippines,

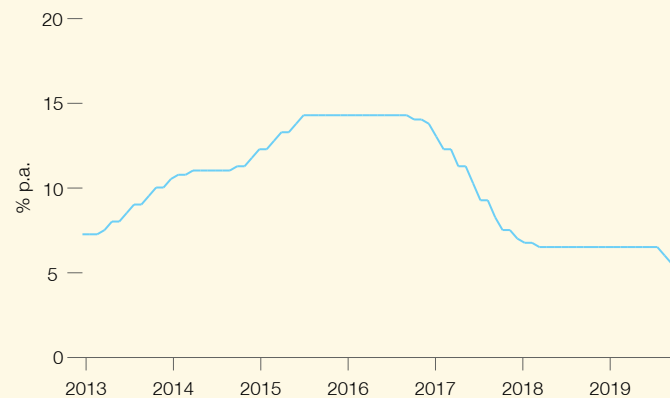
Thailand, India, Brazil, Russia, South Africa, South Korea, Indonesia, Chile, Malaysia, Columbia, Vietnam, Taiwan and China.

This makes EM banks look interesting. As opposed to their developed market counterparts, these banks do tend to benefit from interest rate cuts. Lower rates allow non-performing loans to fall so banks can write back some of their provisions. In addition, lower interest rates also mean that borrowing becomes more attractive to companies and individuals and so the credit cycle restarts. As domestic bond markets tend to be underdeveloped and the banking systems are perhaps less competitive than in developed markets, this pick-up in lending feeds through to the banks' bottom lines. Often the market underestimates the impact on profits at these inflection points. Russia's Sberbank is a big position in our emerging market portfolios. Also, Banco Bradesco in Brazil, Kasikornbank in Thailand, Bank Rakyat in Indonesia, Grupo Financiero Banorte in Mexico and Credicorp in Peru all feature.

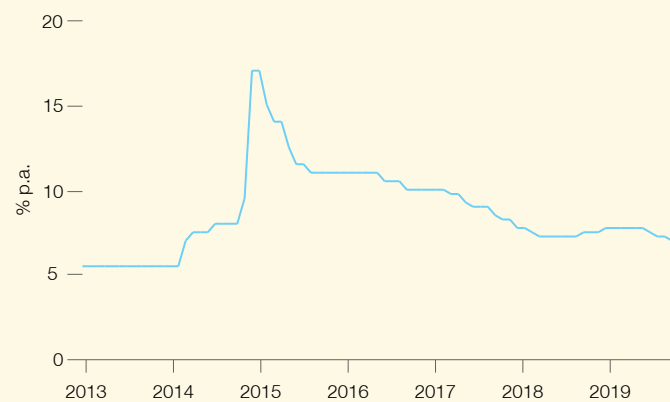
We are optimistic that these banks will see a 'Goldilocks' scenario of loose monetary policy and improving corporate profitability, though the current trade disputes do raise the uncertainty level, they also represent an opportunity for some countries, as companies look to diversify part of their supply chains away from China.

Monetary Policy-Related Interest Rate, year-on-year change

Brazil



Russia

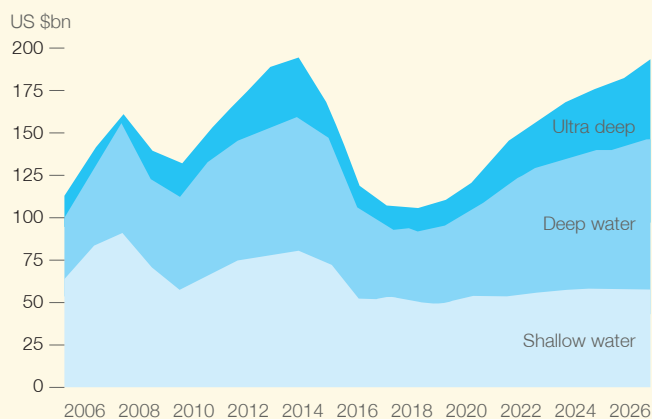


Source: IMF Data

ENERGY

We have also become more optimistic on the prospects for some companies in the energy and mining sector. In general, it takes about five years from discovering oil or gas to full production. So even with a pick-up anticipated in oil and gas exploration, it will take time for any new supply to come to market.

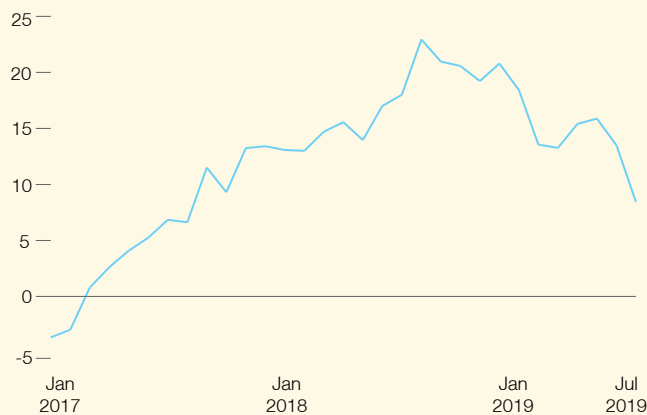
Global E&P Offshore Capex



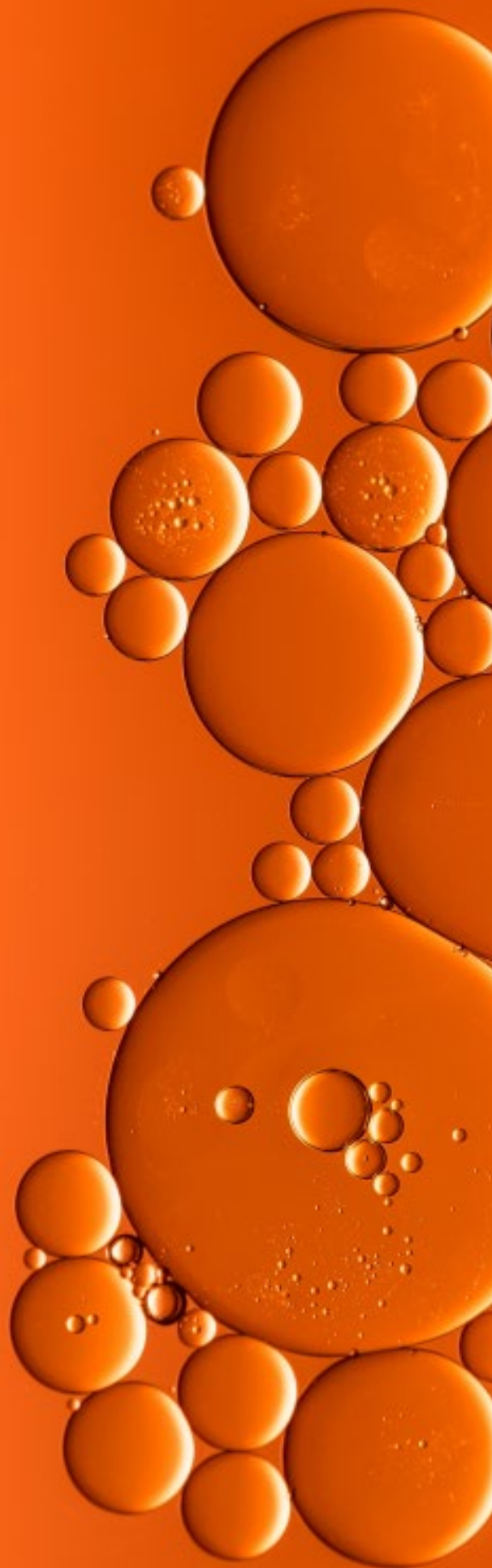
Source: IHS Markit, Global Upstream Spending Report (2017).

Despite the impact of shale, overall growth of oil production in the US is slowing.

US Crude Oil Production Growth
Per Cent Change year-on-year



Source: US Energy Information Administration

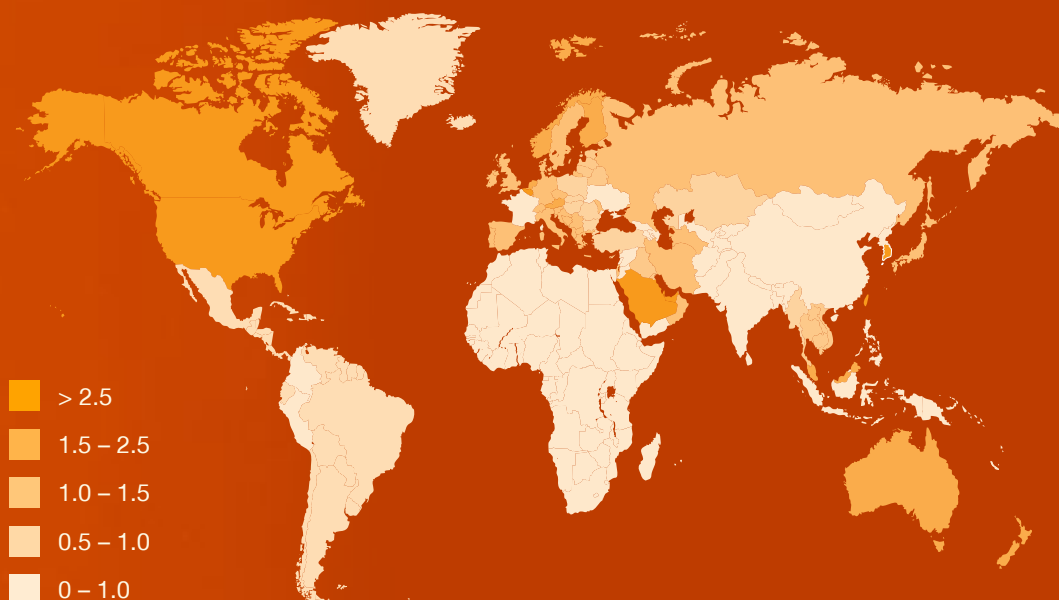


On the demand side, large parts of the world's population still have a relatively low oil intensity. Granted, it is highly unlikely that oil consumption per capita will reach the levels seen in the US given the adoption of green energy and electric vehicles, but there is still scope for this to rise and given the sheer scale of the populations, this would be enough to increase demand. The US consumes about 61 barrels per day per 1,000 people; on the same scale, South Korea and Taiwan are at about 43-45 barrels per day; China consumes about seven barrels per day, while India is slightly above two and a half barrels. Would it be unreasonable to expect China and India's oil intensity to increase from these levels over the long term?

We own CNOOC for some of our clients, a state-owned upstream Chinese oil company that is guiding for approximately seven per cent production growth over the next few years as overseas fields come on line. The great thing about CNOOC is that, while it's a high-cost producer, the tax regime is very favourable and it's allowed to keep everything it earns above \$40 per barrel to invest in future production growth. Remember, one of China's big weaknesses is that it's still hugely dependent on foreign oil – and in a world where the US has already shown its determination to contain China's rise by restricting its access to American semiconductors, this is a weakness that Beijing is desperate to correct.

We are often warned of the risks of investing in state-owned companies: but here it feels like our interests are firmly aligned with one of Beijing's strategic imperatives. A single-digit price/earnings multiple feels compelling.

Oil: Consumption per capita 2018 (tonnes)



COMMODITIES

We are also excited about the outlook for nickel and copper. Both will be beneficiaries of the move to electric vehicles (EVs) and electrification. Nickel is predominantly used to produce stainless steel but also as a key cathode in lithium ion batteries. After a few years of lower prices, there has been very little investment in new supply, with the result that there may be bottlenecks if demand were to surprise on the upside. It is estimated that even if only 10 per cent of new vehicles are electric, an additional 400,000 tons of high-grade nickel is required on a base of 2 million tons of annual supply. In addition, existing supply is still subject to disruptions; Indonesia recently announced an export ban on raw nickel as it seeks to attract more investment into processing the ore domestically. Indonesia is currently the largest nickel producer in the world.

There are similar opportunities in copper; prices fell between 2011 and 2016, leading to a lack of investment in new supply. A conventional internal combustion engine car uses 18–49 lbs of copper; a hybrid electric vehicle uses 85 lbs; a battery electric vehicle uses 183 lbs. Interestingly, a battery-powered electric bus needs 814 lbs of copper; China has 421,000 electric buses, the US has 300.

The simple fact is that the EV revolution will *not* happen at today's commodity prices. Electrification of the world's auto fleet is going to require a Herculean investment in new nickel and copper supply. Given the timescale and cost involved in bringing new mines on line, it is far from clear



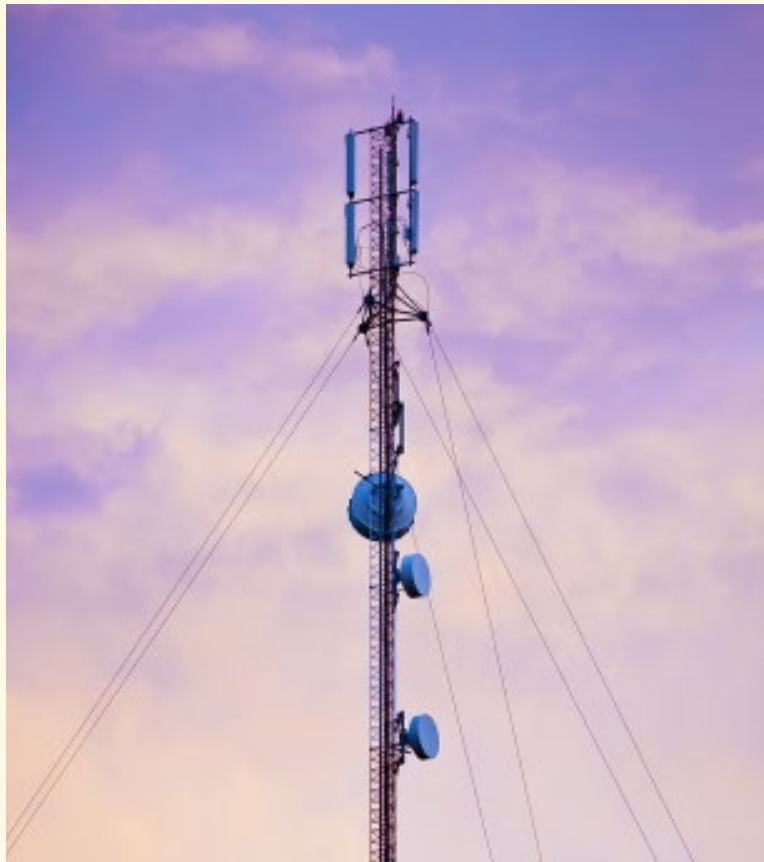
After all, it doesn't matter who the downstream winners are – whether it's car makers or battery makers, Chinese newcomers or Western incumbents – everyone will need more copper and nickel.

how this will be achieved. Now we don't know exactly when prices will start to move, and by exactly how much. But with very little priced into the shares of the mining companies to reflect this possibility, we can afford to sit back and wait. Take Norilsk Nickel – the world's largest and lowest-cost producer of nickel, and a leading producer of copper. If prices stay flat, as analysts expect, our thesis will be wrong, but we can console ourselves with the double-digit dividend yield compensating our clients.

If we are right, and prices head even some of the way back to the levels we saw in the last decade – remember, nickel is currently around 70 per cent below its high – the upside will be truly massive. In a world where most of the perceived beneficiaries of the EV transition trade on high multiples, the mining companies are the honourable exceptions. Even better, they are truly product agnostic. After all, it doesn't matter who the downstream winners are – whether it's car makers or battery makers, Chinese newcomers or Western incumbents – everyone will need more copper and nickel.

TECHNOLOGY INFRASTRUCTURE

We still see strong structural stories in emerging markets. As we move to 5G, the internet of things and hyper-computing, the world is going to need more silicon chips. Taiwan Semiconductor Manufacturing Company (TSMC) specialises in making logic chips for the great and the good technology companies; Apple, Qualcomm and Nvidia are all TSMC customers. Despite concerns about Moore's Law, TSMC has been leading the race to ever smaller nodes, working with AMD to produce a seven-nanometre (nm) central processing unit (CPU), ahead of Intel's current 14nm platform. Likewise, Samsung Electronics is leading the race in dynamic random access (DRAM) and not-and (NAND) memory chips. Despite a short-term downturn in demand from data centre providers and smartphones, demand for memory chips will rise with 5G adoption. Samsung is also a leader in displays where its organic light-emitting diode (OLED) technology, after a couple of false starts, may lead to foldable smartphone and tablet screens.



This, along with the 5G roll-out could well lead to a significant uptick in the smartphone replacement cycle.

As well as these semiconductor leviathans, our enthusiasm for the big Chinese internet companies remains intact. Take Alibaba. The company has done very well since 2014, and the current market capitalisation – in excess of \$400 billion – is a large number. But is it possible that this company – still growing revenue more than 40 per cent year-on-year as of the third quarter 2019 – is still on the starting grid? Analysts tend to fret over the fact that 20 per cent of China's shopping is already done online – a larger number than anywhere else in the world. We think there is a far more interesting question: in which categories of goods will ecommerce penetration not go towards 100 per cent over the next decade? And when it comes to valuation, remember that Alibaba's net profits are suppressed by a number of currently loss-making but potentially very valuable investments – stripping these out, we think the core ecommerce business trades on a mere mid-teen price/earnings multiple. Even assuming zero value for the other businesses, this seems badly mispriced.

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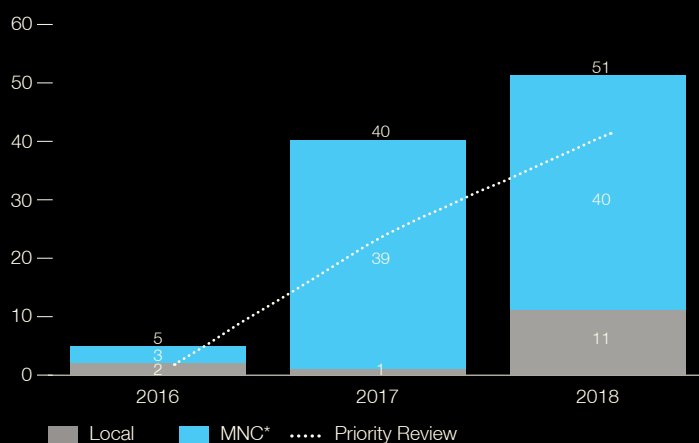
But is it possible that some of these other businesses could individually be worth hundreds of billions of dollars in their own right? After all, there is huge potential for the Chinese economy to shift to the Cloud – a market in which AliCloud has a 50 per cent share and, as at September 2019, is growing at 64 per cent per annum. Alibaba also has a significant online payments business, both larger (using 2017 numbers) in terms of transaction value (Alipay \$9.0 billion) than either Visa (\$7.3 billion) or Mastercard (\$5.2 billion) and growing more quickly. However, Visa has a market capitalisation of over \$380 billion and Mastercard of around \$275 billion. Within its parent, Alipay is valued by the market at a fraction of the US credit card issuers.

HEALTHCARE

An area we're currently looking at is the Chinese healthcare sector. China's need for an improved healthcare system is getting more pressing. The over-65 population is expected to increase from 166 million to 250 million by 2030. At present, China spends the equivalent of 5.5 per cent of GDP on healthcare, compared to an OECD average of 9 per cent and the US (an outlier) at 17 per cent.

In the past, an uncertain and restrictive regulatory environment made this sector a difficult one for long-term investors. However, in 2018, the China Food & Drug Administration was renamed the National Medical Products Administration (NMPA) and with the name change has come a change in emphasis. Steps have been taken to improve and shorten the new drug review process and encourage new drug innovation. The result is that new drug approvals have accelerated and 182 drugs were accepted for priority review in 2018.

Annual New Approvals in China



*MNC: Multinational pharmaceutical company.
Source: Deloitte LLP, 2018.

China has recently joined the International Council for Harmonisation of Technical Requirements of Pharmaceuticals for Human Use, more pithily known as the ICH. This means Chinese drug trials can be conducted simultaneously with those in the US and the EU and the data gleaned given equivalence to Western findings. Intellectual property also has better safeguards in China, now that the country is producing more of its own; in 2017, China's patent office received 1.38 million patent applications, compared to approximately 600,000 filed in the US. Accordingly, the Chinese healthcare sector is throwing up some interesting investment opportunities.



LOOKING AHEAD

Our enthusiasm for the opportunities available in emerging markets remains unwavering, be it in newer areas such as healthcare or ecommerce or more traditional areas such as banks and mining. As the world fixates on negative short-term news flow, valuations across EM seem to reflect a good deal of pessimism about the growth outlook. This is where being optimists serves us well – we believe the market is missing some fantastic long-term growth opportunities at what are attractive valuations. What's more, looking out, there is far more to come from EM.

It is no surprise that in the past the best companies in the world have come from countries with the largest and most sophisticated home market to act as a test bed – hence US Inc punches above its weight with 50 per cent of global indices on only 15 per cent of global GDP. However, 58 per cent of millennials, over 1 billion individuals, live in Asia and will be hitting peak earnings over the next decade. It is estimated that China and India will be home to over 43 per cent of world's middle classes by 2030. This shift is being reflected in stock markets: despite being only about 12 per cent of the global indices, over the last ten years emerging markets have provided nearly a third of the best performing stocks (in US dollar terms) in the world.

According to a World Bank study, there are between 360–440 million micro, small and medium-sized enterprises in the emerging markets; the next Apple or Tesla may well come from California, but might it also come from Shanghai, Mumbai, Cape Town or Sao Paulo?

*So what is the future like for
Emerging Markets?
It's better.*

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Tim joined Baillie Gifford in 2015 and is a director in the clients department. Before Baillie Gifford, he was co-manager of the Asia Pacific ex Japan pension fund at Kames Capital from 2008 to 2015. Tim began his career at Smith New Court in 1991, before moving to Cazenove & Co in 1994 to specialise in Asian Equities. He has accumulated over twenty years' experience of investing in the region. Tim graduated BA (Hons) in History from the University of Exeter in 1990 and received an MBA from the University of Cambridge in 2001.

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