

China Going Global Investment Index 2017

A report by The Economist Intelligence Unit



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Introduction

The outlook for China's overseas direct investment (ODI) appears to have dimmed. After a bumper year for deal-making in 2016, ODI flows from China slumped by over 40% year on year in the first ten months of 2017. The Chinese government rolled out policies designed to curb what it called "irrational" overseas investment from late 2016, as part of a broader bid to contain destabilising capital outflows. They appear to have been successful.

Nevertheless, it is still an exciting time to be watching the international expansion of corporate China, and The Economist Intelligence Unit (EIU) views the recent drop in ODI flows as temporary. Although approval processes may be more complicated, Chinese companies will still feel impelled to venture overseas for similar reasons as they did before—to drive higher revenue by tapping new markets and acquiring better technology. The roll-out of the Belt and Road Initiative (BRI), a government strategy announced in 2013 to boost trade and investment links between China and over 60 (mainly developing) countries, has also given an additional impetus for some firms.

In this paper we update the China Going Global Investment Index we published previously in 2013 and 2015.¹ The index ranks 60 major economies in terms of their attractiveness to Chinese firms, drawing on 57 indicators spread across "opportunity" and "risk" pillars. In this update we have also added indices covering six industries in order to guide firms with a specific focus. Our methodology and a full list of indicators can be found in the appendix.

The main takeaways from this update to the China Going Global Investment Index include:

- Singapore has overtaken the US as the most attractive destination for Chinese ODI. The city state's superior business environment, access to South-east Asian markets and close links with China are integral to its top ranking, while the fall in the US ranking is partly attributable to higher trade tensions with China. Hong Kong ranks third in the index.
- Although developed economies still dominate the upper ranks of the index, emerging markets have risen in this update. More stable commodity prices have improved economic prospects for many developing economies since the last update, while the BRI has provided additional incentives for Chinese firms to invest in these regions. Notable climbers include Malaysia (ranked fourth) and Kazakhstan (ranked 13th). Several developed economies have tumbled down the index: the UK slips by the most, by 29 places to 41st, owing to the worsened outlook for economic growth following its decision to leave the EU.
- Countries that rank consistently highly across the six industry indices include the US, Japan, India and Iran. While the US and Japan owe their positions mainly to the opportunities they offer Chinese firms to obtain technology and brands through mergers and acquisitions (M&A), India and Iran are fast-growing markets in which companies from China are likely to be competitive.

¹ To download the 2015 report, *China Going Global Investment Index 2015*, visit: http://www.eiu.com/public/thankyou_download.aspx?activity=download&campaignid=ChinaODI2015



I. Overall country rankings

China Going Global Investment Index ranking

| BRI | Country | Rank 2017 | Rank 2015 | Rank 2013 | 2017-15 change |
|-----|--------------|-----------|-----------|-----------|----------------|
| | Singapore | 1 | 2 | 2 | ▲ |
| | US | 2 | 1 | 1 | ▼ |
| | Hong Kong | 3 | 7 | 3 | ▲ |
| | Malaysia | 4 | 21 | 18 | ▲ |
| | Australia | 5 | 3 | 5 | ▼ |
| | Switzerland | 6 | 5 | 7 | ▼ |
| | South Korea | 7 | 10 | 28 | ▲ |
| | Canada | 9 | 4 | 6 | ▼ |
| | Chile | 10 | 27 | 22 | ▲ |
| | Russia | 11 | 17 | 9 | ▲ |
| | Israel | 12 | 20 | 31 | ▲ |
| | Kazakhstan | 13 | 49 | 38 | ▲ |
| | Taiwan | 14 | 8 | 12 | ▼ |
| | Japan | 15 | 6 | 4 | ▼ |
| | Norway | 16 | 9 | 8 | ▼ |
| | Denmark | 18 | 18 | 14 | ■ |
| | Thailand | 19 | 42 | 35 | ▲ |
| | Iran | 20 | 46 | 57 | ▲ |
| | Germany | 21 | 11 | 10 | ▼ |
| | Finland | 22 | 14 | 16 | ▼ |
| | Poland | 23 | 32 | 36 | ▲ |
| | Saudi Arabia | 25 | 23 | 15 | ▼ |
| | Indonesia | 27 | 47 | 44 | ▲ |
| | France | 28 | 19 | 20 | ▼ |
| | Philippines | 29 | 39 | 39 | ▲ |
| | Sweden | 30 | 13 | 13 | ▼ |
| | Vietnam | 31 | 38 | 41 | ▲ |
| | Netherlands | 32 | 25 | 21 | ▼ |
| | Sri Lanka | 33 | 45 | 46 | ▲ |
| | New Zealand | 36 | 16 | 17 | ▼ |
| | India | 37 | 31 | 33 | ▼ |
| | Belgium | 38 | 24 | 23 | ▼ |
| | Peru | 39 | 40 | 42 | ▲ |
| | Austria | 40 | 29 | 25 | ▼ |



| BRI | Country | Rank 2017 | Rank 2015 | Rank 2013 | 2017-15 change |
|-----|--------------|-----------|-----------|-----------|----------------|
| | UK | 41 | 12 | 19 | ▼ |
| 🚩 | Pakistan | 42 | 57 | 47 | ▲ |
| | Spain | 43 | 26 | 29 | ▼ |
| | South Africa | 44 | 50 | 49 | ▲ |
| | Mexico | 45 | 30 | 30 | ▼ |
| 🚩 | Turkey | 47 | 51 | 53 | ▲ |
| | Portugal | 49 | 33 | 40 | ▼ |
| 🚩 | Egypt | 50 | 53 | 51 | ▲ |
| | Italy | 51 | 35 | 34 | ▼ |
| | Argentina | 52 | 59 | 62 | ▲ |
| | Brazil | 53 | 34 | 26 | ▼ |
| 🚩 | Azerbaijan | 54 | 61 | 59 | ▲ |
| | Greece | 55 | 58 | 56 | ▲ |
| | Colombia | 56 | 48 | 50 | ▼ |
| | Algeria | 57 | 63 | 61 | ▲ |
| | Ecuador | 58 | 64 | 64 | ▲ |
| | Nigeria | 59 | 65 | 66 | ▲ |
| | Venezuela | 60 | 62 | 58 | ▲ |

Note: More than 60 countries were included in the index in 2015 and 2013.

Source: The Economist Intelligence Unit.

The top-ten ranked countries in the China Going Global Investment Index are still dominated by developed economies, but emerging economies have seen notable gains in this update. Singapore has leapfrogged the US to take the top slot, a position the latter held in both 2013 and 2015, while Hong Kong has moved up to third. The US has slipped in the rankings owing to higher trade tensions with China (evidenced by more anti-dumping actions by the US against China at the World Trade Organisation), as well as the rejection of several Chinese investments by the government's Committee on Foreign Investment in the United States (CFIUS). A toughening in US economic policy towards China was evident during the latter years of the previous US administration led by Barack Obama, and has become more pronounced under the current president, Donald Trump. Nevertheless, the US remains a very attractive destination for Chinese ODI, both in terms of M&A targets and market opportunities.

A number of developed countries fall down the rankings in this update to our index, reflecting the greater weight we have attached to our economic growth forecasts and the policy support available to Chinese companies investing in BRI countries. Japan has tumbled from sixth in the rankings to 15th, despite an improvement in diplomatic relations from their nadir in 2012-14. A public survey showed that only 11.3% of Japanese viewed China favourably in 2016, an even lower level than previous years. Other advanced economies to drift down the rankings include Australia (from third to fifth), Canada (from fourth to ninth) and Germany (from 11th to 21st). The steepest fall is recorded by the UK, which



has dropped by 29 places to 41st, reflecting our more pessimistic expectations for its economic growth in the light of the country's decision to exit the EU.

Not all developed economies fare badly. South Korea has risen to seventh, from tenth in 2015 and 28th in 2013. China and South Korea have strong trade connections and complementary industrial structures, although the damage done to bilateral relations by a recent year-long diplomatic spat could have a negative impact on Chinese ODI in South Korea. Israel and Chile, two smaller but well-managed economies with niche sectoral strengths (such as Israel's in healthcare), have moved into the upper reaches of the index for the first time.

As developed economies have slipped, many emerging markets have risen. Malaysia leaps to fourth in the rankings, from 21st in 2015. The country has emerged as a key node on the BRI and has a welcoming attitude towards Chinese investment, not least in part owing to the support it has provided to the embattled administration led by Najib Razak, which has been embroiled in a scandal tied to the activities of a sovereign wealth fund, 1Malaysia Development Berhad. Other notable emerging-market climbers include Kazakhstan (up by 36 places to 13th), Thailand (up by 23 places to 19th) and Iran (up by 26 places to 20th). Each is included on the BRI.

Members of the BRICS countries have gone separate ways. Russia's index rank moves up by six places to 11th, with its economic prospects having improved owing to higher commodity prices. South Africa's rank has risen by six places to 44th. However, Brazil has dropped by 19 places to 53rd, with ongoing political and economic strife exacerbating structural challenges such as weak research and development (R&D) spending. India is down by six places to 37th amid tense political relations with China. Despite challenges for Chinese investors in India, the country's growth prospects are the brightest across major economies and several Chinese companies, such as Huawei (a telecommunications firm) and Xiaomi (a consumer electronics company), have built successful businesses there.

ODI trends since 2015

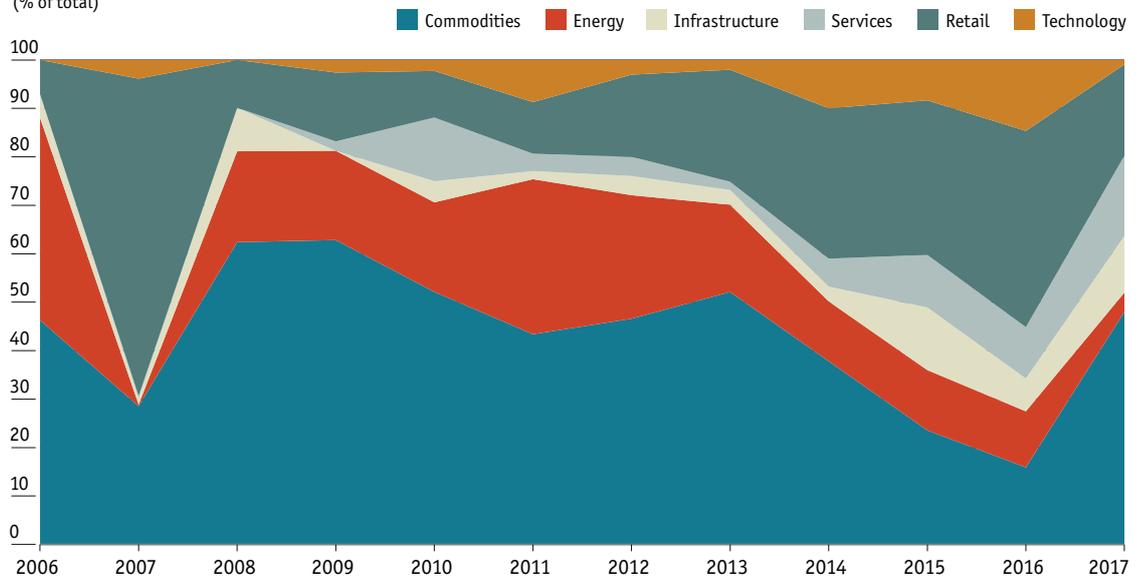
Much has changed in the Chinese overseas-investment environment since we last updated the index in 2015. 2016 was the strongest year for Chinese ODI on record, with non-financial ODI flows surging by 44.1% to US\$170bn, according to China's Ministry of Commerce. This outstripped foreign direct investment for the first time.

The scale of overseas deal-making, however, became a concern for Chinese policymakers. Worried that some ODI flows were designed to bypass capital controls and that firms (especially in the state-owned sector) were investing too heavily in projects unlikely to generate returns, they began to tighten approval processes in late 2016. Efforts to clamp down on "irrational" ODI, while prioritising investment in strategic areas or that tied to the BRI, have continued throughout 2017. Guidelines issued by the State Council (the cabinet) in August aimed to promote "healthy growth" in ODI, with investments categorised into encouraged, restricted and prohibited areas. Investments in property, hotels, film studios, entertainment and sports clubs were placed in the restricted category, meaning they require approval (not just filing) by the central authorities.



Chinese overseas investment has slumped as a result of this policy tightening. In January-October 2017 non-financial ODI declined by 40.9% year on year, according to the commerce ministry. The composition of ODI flows has also changed. In 2017 there have been no recorded Chinese acquisitions in property, sport and entertainment—areas specifically targeted by the authorities. As the share of ODI in the services sector has declined, that in more traditional areas has rebounded. The share of ODI from the commodity and energy sectors has risen this year, after amounting to less than a third of the total in 2016.

China's ODI flows by sector
(% of total)



Sources: China Global Investment Tracker; fDiMarkets; The Economist Intelligence Unit.

Note: Data for 2017 are for January-November.

Investments tied to strategic and technological goals are still being greenlighted. State-owned ChemChina's US\$43bn purchase of Syngenta, a Swiss seed and chemical company, was confirmed in June 2017 and is the biggest overseas deal involving a Chinese company to date. ODI tied to the BRI is also encouraged by the authorities, although much of this activity—principally infrastructure construction projects—takes place via foreign contracted projects funded by discounted Chinese loans. As such, it is not captured as an investment flow in the data.



II. Country rankings by industry

Besides our overall China Going Global Investment Index rankings, in this update we have also developed separate indices to assess which countries are the most attractive to Chinese ODI across six industries. These six industries—automotive, consumer goods, energy, financial services, healthcare and telecommunications—are those covered by the EIU's *Industry Briefing* service. Each industry index comprises indicators that capture both a country's market prospects and the level of development of a given industry, reflecting the ambitions of Chinese investors to both exploit local market potential and to acquire technology and brands.

Automotive

Japan and the US rank top in terms of attractiveness of ODI in the automotive sector. They have a large pool of world-class brands, as well as the highest number of automotive-related patents. Japan's relatively protected automotive market means, however, that it could be a challenging environment for Chinese companies to implement M&A projects. The US has historically been more open to Chinese investment in its automotive sector.

While Japan and the US, alongside Germany and South Korea, rank highly owing to the opportunities they offer for automotive-technology acquisition, our top ten also features several developing markets that provide good opportunities for motor vehicle sales. Iran ranks third owing to its untapped potential as an automotive market that Chinese firms may be well placed to exploit.

Technology acquisition

The position of the US and Japan at the top of our rankings reflects the priority that Chinese automotive firms have placed on using ODI to acquire technology. In the past five years ODI in the automotive sector amounted to US\$27.3bn, with over 80% of that figure consisting of M&As. Europe took up the largest share of China's ODI across the global automotive industry, at 60%, while Africa accounted for the lowest, at 5%. Family-run German automotive-component firms have been a top target, with Chinese buyers allured by relatively low valuations in the period after the 2008-09 global financial crisis. Germany does not rank higher on our index owing to its relatively weak market growth prospects.

A front-runner in China's automotive ODI has been Anhui Zhongding, an automotive-components maker focusing on rubber seals. Over 2007-16 it acquired four leading firms in Germany and five in the US. The acquisitions have helped to extend the company's position in the supply chain, moving from just rubber products to automation engineering, electric vehicle (EV) cooling technology and battery control systems. The company's annual sales revenue has grown by an average of 32.4% a year since 2010, reaching Rmb13.5bn (US\$2bn) in 2016, with over half of that revenue coming from overseas.

China Going Global Investment Index

| Rank | Automotive |
|------|-------------|
| 1 | Japan |
| 2 | US |
| 3 | Iran |
| 4 | India |
| 5 | Vietnam |
| 6 | Russia |
| 7 | Algeria |
| 8 | Chile |
| 9 | Germany |
| 10 | South Korea |

Source: The Economist Intelligence Unit.



Another automotive-parts company, Wanxiang, has also been active overseas. In 2013 it acquired a bankrupt US-based components maker, A123 Systems, and followed that with the acquisition of a luxury EV maker, Fisker (now named Karma), in 2014. The company’s strategy has raised its international profile and also proven to be valuable in the Chinese market. The Chinese government granted Karma permission to build an EV manufacturing facility in China in late 2016.

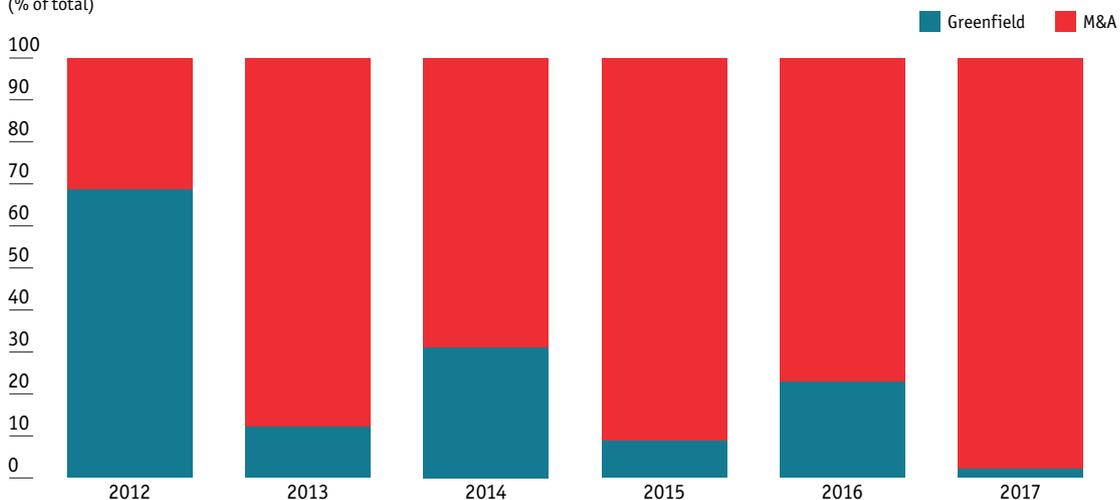
Tapping developing markets

Chinese automotive companies have also ventured overseas to tap new markets. The dominance of foreign automotive brands in the domestic market has encouraged local carmakers to explore overseas markets, with a preference for developing markets where world-leading automotive brands might not be affordable for the majority of local consumers. In 2016 the biggest importers of China’s passenger cars were Iran, Chile and Mexico.

Africa has been one market where Chinese automotive firms have ventured. Most of this activity has been driven by state-owned firms that specialise in commercial vehicles, such as Sinotruk, Dongfeng Motor, FAW, Foton Motor and JAC Motor. They have followed opportunities generated by Chinese-led infrastructure projects on the continent. FAW invested in a truck manufacturing facility in South Africa in 2012, for example, while JAC and Foton have investments in Algeria. Passenger-car makers have been slower to join the market, but both Geely and Chery Automobile operate manufacturing plants in Egypt.

Eastern Europe has also emerged as a promising market for Chinese automotive firms, despite more intense competition from top global brands. The privately owned Great Wall Motor set up a car factory in Bulgaria in 2012 and another plant in Russia in 2017. Some of its most popular models, such as the relatively low-cost Haval special utility vehicle (SUV), may find receptive consumers in such regions.

China’s ODI in the automotive sector
(% of total)



Sources: China Global Investment Tracker; The Economist Intelligence Unit.

Note: Data for 2017 are for January-November.



Sector trends

On the technology acquisition front, the future focus of Chinese ODI is likely to be emerging sectors, such as EVs (bracketed within a broader category known as new-energy vehicles in China) and autonomous cars. Financial and policy support for ODI in these areas should be abundant, with the so-called Made in China 2025 (MIC 2025) industrial policy initiative prioritising the development of the sectors. An internet giant, Baidu, is focused on the development of autonomous vehicles and has made R&D investments in the US in support of this effort. Another internet company, Tencent, invested in Tesla, an American EV producer, in March 2017.

In turn, these developments could generate market opportunities for Chinese companies, including in developed markets where they have until now failed to secure a foothold. They might struggle to compete with established players in the passenger-car market, but the less established global EV sector holds more promise. In October 2017 China's leading EV maker, BYD, opened a plant in California in the US to produce electric buses.

Consumer goods

The top ten most desirable locations for Chinese ODI in the consumer goods sector are a mix of developed and emerging markets. The US ranks top, supported by the presence of top retail brands, high-quality logistics and a robust retail market. South Korea, ranking third, has a developed retail market, close trade relations with China and the highest smartphone ownership rate in the world, facilitating e-commerce (a Chinese strength). Several members of the Association for South-East Asian Nations (ASEAN) feature in the top ten, where fast-growing populations and rising incomes ought to provide opportunities for consumer firms. Strong market demand growth can also be expected in India and Iran.

Reaching the middle class

One driver behind Chinese ODI in the consumer goods sector has been the need to serve China's growing middle-class population. Around 10% of the country's population already falls into our definition of "upper-middle-income" consumers (with annual disposable income per head equivalent to at least US\$10,000), and we expect this share to increase to 35% in 2030.² Although China is the largest producer of consumer goods in the world, local output does not meet the demand for variety and quality desired by the middle class. As such, Chinese companies have sought to improve their offerings via overseas acquisitions of well-known international brands in areas such as food, cosmetics, clothing and household appliances.

Among the most acquisitive Chinese firms in the sector has been an investment company, Fosun. It began its overseas buying spree in the consumer goods sector in 2011, when it purchased a minority stake in a Greek fashion brand, Folli Follie. It has since made investments in an American women's

China Going Global Investment Index

| Rank | Consumer goods |
|------|----------------|
| 1 | US |
| 2 | Malaysia |
| 3 | South Korea |
| 4 | Vietnam |
| 5 | Singapore |
| 6 | Philippines |
| 7 | India |
| 8 | Iran |
| 9 | Indonesia |
| 10 | Romania |

Source: The Economist Intelligence Unit.

² The Economist Intelligence Unit, *The Chinese Consumer in 2030*: http://www.eiu.com/public/thankyou_download.aspx?activity=download&campaignid=Chinesecconsumer2030

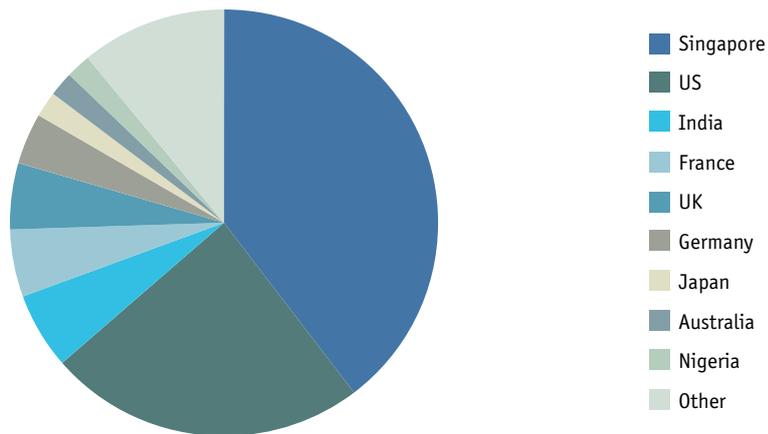


clothing brand, St John, an Italian custom men’s clothing retailer, Caruso, and a German fashion brand, Tom Tailor. Its latest purchase was of a stake in a French apparel brand, IRO, in 2016. Other clothing companies active overseas include Ruyi Group and Septwolves.

Equally acquisitive in the international marketplace have been Chinese food and beverage companies. Local firms have purchased international brands to assuage local consumer concerns about food safety and quality. China’s top meat producer, Shuanghui, acquired a US-based pork producer, Smithfield Foods, for US\$4.7bn in 2013. Shanghai-based Bright Food has also been active, buying stakes in firms such as a New Zealand meat producer, Silver Ferns, two New Zealand-based dairy firms, New Zealand Dairy Company and Synlait Milk, and an Israel-based dairy company, Tnuva. The purchases of foreign dairy companies cater to domestic demand for foreign baby formula.

Not all purchases have been successful. In April 2017 Bright Food sold a 60% stake it had purchased in a UK cereal brand, Weetabix, in 2012. The company discovered that Chinese consumers were not ready to embrace cereal as their breakfast option.

China’s ODI in the consumer-goods sector by country, 2013-17
(% of investment value of ODI)



Sources: Global Investment Tracker; fDiMarkets; The Economist Intelligence Unit.

Note: Data for 2017 are for January–November.

Entering new markets

The other driver for ODI in consumer goods sector has been a desire to secure a foothold in the international market place. Intense competition in the domestic market has lowered profit margins for some consumer goods firms, encouraging them to venture outwards. A telling investment in this sense was the purchase for US\$5.4bn of US-based General Electric’s appliance division by a Chinese household appliance maker, Haier, in 2016. The deal gave Haier a major foothold in the US and other developed markets, where it had almost a negligible presence previously.

Other Chinese consumer-facing firms see attractive options in emerging markets, where they believe that they can apply their experience in developing the Chinese market. Xiaomi has enjoyed particular success in India since it entered the country in 2014, with its market share in smartphone sales now



level with the long-established leader, South Korea's Samsung. The firm announced plans in November 2017 to build its third manufacturing facility in the country.

Sector trends

China's companies look set to continue to expand internationally as they improve their branding strategies and reach a broader swath of international consumers. Huawei has been a pioneer, moving from selling telecoms infrastructure to forging a major consumer business, led by smartphones, in developed as well as developing markets. Other globally successful Chinese consumer goods brands include Hisense (a television manufacturer), Lenovo (a personal-computer maker) and DJI (a drone manufacturer).

E-commerce could be a particular strength for Chinese firms in the global consumer sector in future. The local leader, Alibaba, is amplifying its e-commerce footprint in South-east Asia and India through investments in Lazada and Paytm, respectively. In contrast with its US rival, Amazon, Alibaba appears content to expand its global market reach through investment in local players rather than under its own brand. Tencent has also invested in India via a stake in Flipkart, India's leading e-commerce marketplace. Amazon's grip over e-commerce in developed markets means that emerging economies are likely to hold more promise for Chinese companies.

Energy

Developing countries, especially those in South-east Asia and South Asia, dominate the top-ten rankings for energy. Their fast-growing economies but underdeveloped energy infrastructure point to high demand for investment in the sector. The top three countries, India, Iran and Pakistan, suffer from a chronic lack of electricity-generating capacity. Several countries are included in the top ten not for their market opportunities, but for the access they provide to energy resources. Russia ranks seventh owing to its large reserves of coal, natural gas and oil, as well as its proximity to China. Iraq also features in our list.

Coal and electricity

China's ODI in coal mining and coal power projects has expanded over past decades. Russia and Australia, with some of the largest coal reserves in the world, have been two top targets in the sector that offer investors access to high-grade coal that can be imported back to China. However, with the Chinese government looking to reduce the country's dependence on coal, recent years have seen dimmed interest in acquiring overseas coal resources. Instead, Chinese companies have been investing in coal power projects abroad, mainly in developing countries. Top targets include India, Indonesia, Mongolia, Vietnam and Turkey.

Chinese ODI in the electricity sector has also begun to pick up, largely driven by state-owned enterprises (SOEs). In 2016 Shanghai Electric Power bought K-Electric, a power generation and

China Going Global Investment Index

| Rank | Energy |
|------|-------------|
| 1 | India |
| 2 | Iran |
| 3 | Pakistan |
| 4 | Vietnam |
| 5 | Indonesia |
| 6 | Philippines |
| 7 | Russia |
| 8 | Thailand |
| 9 | Hong Kong |
| 10 | Iraq |

Source: The Economist Intelligence Unit.



distribution company in Pakistan, for US\$1.8bn. In 2017 State Grid Corporation, China's biggest electric utility company, acquired Brazil's CPFL Energia, the largest power distributor in the country, for US\$5.7bn.

Oil and gas

In the oil and gas sector, Chinese ODI has mostly gone to countries with rich reserves. China's three energy majors—China National Petroleum Corporation (CNPC), Sinopec and China National Offshore Oil Corporation (CNOOC)—have been the main buyers. North America has been a favoured destination. The biggest deal in the region has been Sinopec's US\$2.2bn purchase of 33% of US-based Devon Energy in 2012. The only concern is the valuation of the target company: several Chinese companies made the mistake of purchasing assets in Canada when the oil price was at its peak in 2014.

In Central Asia, Chinese investors have favoured Kazakhstan as an investment destination. In 2013 CNPC spent US\$5.3bn to purchase 8% of KazMunaiGas National. In the Middle East, the two major oil producers, Saudi Arabia and Iran, have received relatively little attention from Chinese investors. The lifting of sanctions is likely to lift investment in Iran, however. Iraq has been preferred as an investment destination for Chinese companies in the region.

In Latin America, China's oil and gas majors have favoured Brazil and Venezuela, the largest oil producers in the region. In 2016 CNPC invested US\$1.5bn in Petróleos de Venezuela (PDVSA), a Venezuelan oil and gas SOE. However, ODI in South American energy companies is a high-risk and high-reward strategy. Latin American oil companies have a history of bond defaults. Their production costs are also high, as most of their oil output is offshore in deep waters.

Sector trends

Chinese companies eye significant global opportunities for themselves in renewable energy, where they may hold a competitive advantage. A glut of domestic investment in the sector has turned local renewable energy firms into global leaders, and they often maintain a cost advantage over their developed-world rivals.

The country's expertise in hydropower has made that sector a focus, with several high-profile projects in 2016-17: China Three Gorges Corporation took control of ten hydropower plants in Brazil from Duke Energy (US), while China Civil Engineering has announced plans to build a hydropower plant in Nigeria. However, hydropower projects have also been vulnerable to pushback, mainly over concerns about their environmental impact. In November 2017 Nepal and Pakistan cancelled several Chinese-backed hydropower plants.

Solar and wind are also components of China's renewable-energy overseas push. Recent investments include plans in January 2016 by China-based Yingli to construct a solar-panel manufacturing plant in Thailand, as well as an agreement signed that same month by Hydro China International to construct a wind farm in Kazakhstan. In March 2017 China announced plans to build a solar park and four wind farms in Pakistan.



Much of China's ODI efforts in nuclear energy have centred on constructing nuclear reactors based on its domestically developed designs, namely the Hualong-1 (developed from designs by Areva, a French energy company) and CAP1400 (based on designs from Westinghouse, an American energy company).

Nuclear power projects are lucrative. In October 2015 China General Nuclear announced plans jointly to finance, construct and operate the Hinkley Point C nuclear power project in the UK, while in September 2017 China finished construction of its fourth nuclear power plant in Pakistan. A number of other projects are ongoing in Argentina, Romania and Turkey as at November 2017.

Financial services

The US ranks top in terms of attractiveness for Chinese ODI in financial services. It has a large and mature financial market with low operating risks in the banking sector. The economic environment is benign, while volatility in currency and interest rates is low. The US also has the largest number of top financial firms in the world. The Asian financial centres, Hong Kong and Singapore, rank second and third respectively. They are also located along the BRI and both are seeking to act as intermediaries for associated Chinese investment. The remainder of the top ten is mostly developed Western European countries with two (perhaps surprising) exceptions: Poland and Slovakia in Eastern Europe. Both have stable economies and financial sectors as well as access to the EU market, but with the shortcoming of having relatively small financial services industries.

Riskier markets that arguably present better market opportunities rank relatively lowly in our rankings. Asia's fast-growing markets, such as India, Indonesia, Malaysia and Philippines, rank relatively well, supported by reasonable low financial risks and decent returns on assets. A lack of hedging options in these markets is a potential pitfall for investors, however. Most Latin American countries are ranked towards the lower end of the list, with Venezuela and Argentina among the lowest. Frontier markets in Africa rank at the bottom of the rankings. Inadequate regulation and weak balance sheets mean that their financial sectors have high risks.

A change in focus

China's financial ODI has diversified in recent years, both in terms of geography as well as the actors making the investment. Previously, ODI flows were dominated by the major state-run commercial banks. A flagship overseas investment was state-owned ICBC's acquisition of a 20% stake in South Africa's Standard Bank in 2007. Another state lender, China Construction Bank (CCB), bought a Brazilian bank, WestLB, in 2012 and followed it the next year with the purchase of a stake in another Brazil-based lender, Banco Industrial e Comercial. Some of these investments were not successful: CCB's Brazil investments were poorly timed, with the Brazilian economy set for a downturn that would bring down local bank valuations, too.

China Going Global Investment Index

| Rank | Financial services |
|------|--------------------|
| 1 | US |
| 2 | Hong Kong |
| 3 | Singapore |
| 4 | Sweden |
| 5 | Switzerland |
| 6 | Slovakia |
| 7 | Poland |
| 8 | Norway |
| 9 | UK |
| 10 | Canada |

Source: The Economist Intelligence Unit.

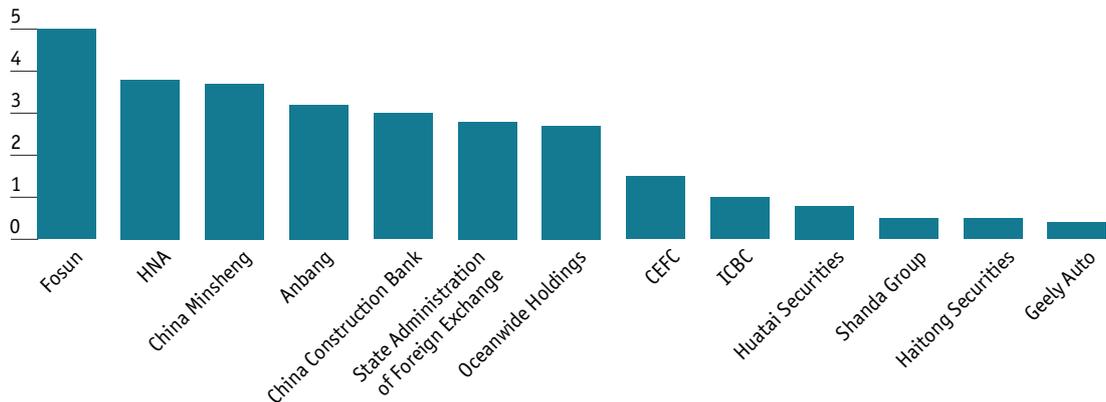


From 2014, however, there was a shift in ODI as China’s own financial industry grew steadily more sophisticated. Not only were the big banks investing overseas, but a crop of financial services firms, supported by lucrative revenue streams generated by insurance and wealth-management services, also became major players in financial ODI. They were attracted by the perceived low valuations of overseas assets, portfolio diversification and a desire to move capital overseas in order to hedge domestic economic risks. They also explored a wider range of markets.

A local insurer, Anbang, acquired two Belgium insurance companies, Fidea and Delta Lloyd, in 2014 and a Netherlands-based insurance company, Vivat, in 2015. Fosun snapped up stakes in two Portuguese banks, Banco Caixa Geral (2014) and Banco Comercial Português (2016). China’s first private bank, China Minsheng, purchased a Swedish insurance company, Sirius International Insurance, in 2016. Meanwhile, a local conglomerate, HNA, made aggressive forays into the overseas financial services sector in early 2017, announcing purchases (either planned or completed) in Deutsche Bank (Germany), UDC Finance (New Zealand), Old Mutual (UK) and Skybridge Capital (US).

The scale of these deals has drawn attention from Chinese regulators, mainly out of concerns that some of them were designed to mask capital flight. However, in most cases the investments have been made in countries with sound fundamentals and could be seen as a natural process of asset diversification.

China’s ODI in financial services by company, 2013-17
(US\$ bn)



Sources: Global Investment Tracker; fDiMarkets; The Economist Intelligence Unit.

Note: Data for 2017 are for January–November.

Sector trends

Enhanced regulatory oversight means that financial services ODI is likely to cool. A renewed ODI push is likely to require the authorities to be more relaxed about the direction of the renminbi’s exchange rate and capital-account opening. Renewed momentum behind renminbi internationalisation, which has stalled in recent years, could generate more overseas opportunities for Chinese banks.

Meanwhile, state-run banks will be prompted to focus their overseas lending and activities on BRI countries. The challenge for these institutions will be developing the analytical and risk-management



tools to gauge corporate investment choices. A lack of experience and shortage of relevant talent is a further obstacle. Most Chinese financial firms have a single department to manage overseas business, with no differentiation between developed markets and emerging markets.

One emerging area to watch in terms of Chinese ODI in financial services will be financial technology (fintech). This sector has developed domestically largely outside the purview of the state banking system, and is led by private-sector firms. Alibaba's AliPay and Tencent's WeChat Pay provide cutting-edge mobile payment technology, but do not yet have much penetration in overseas markets (apart from among the overseas Chinese population). Alibaba's Ant Finance and JD Finance (an arm of another e-commerce firm, JD.com) also leverage fintech to offer a variety of financial services, including wealth management, loans and payment plans. These offerings could be internationally competitive in a manner those from China's traditional banking sector are unlikely to be.

Healthcare

Our top ten destinations for Chinese healthcare ODI are all developed economies, supported by the availability of high-quality medical products and advanced technology. At this stage, Chinese pharmaceutical and healthcare firms are primarily focused on international M&A that boost their domestic competitiveness, rather than seeking new markets. The list is topped by the US, Japan and Switzerland. Israel ranks highly owing to its strengths in biotechnology and medical research.

Driving Chinese ODI in the healthcare sector has been higher domestic expenditure. We estimate that healthcare spending per head increased from the equivalent of US\$161 in 2008 to US\$469 in 2016. Besides government-led efforts to expand the social safety net, spending is being pushed higher by rapid population ageing, a legacy of China's decades-long one-child policy. Domestic demand for improved healthcare services and products is encouraging local firms to sharpen their offerings, including via obtaining companies overseas.

The US and Germany are among the top targets for Chinese companies in the medical devices and technology sector. Sinocare, a China-based biosensor technology company, has been a front-runner. In 2016 it acquired two US companies, PTS Diagnostics, which makes point-of-care medical diagnostic products, as well as Nipro Diagnostics, which specialises in diabetes-testing technology.

Pharmaceutical acquisitions have been another target. In addition to strengthening their research abilities, Chinese companies have also pursued such acquisitions because Western-branded products are seen as safer by local consumers. In April 2017 China's Creat launched a US\$1.5bn bid for a Germany-based blood plasma products maker, Biotest. However, the deal has run into regulatory obstacles in and has yet to be confirmed. Shanghai Fosun Pharmaceutical (a subsidiary of Fosun) has purchased a majority stake in an Indian drug company, Gland Pharma, and in August 2017 said that it was among the bidders for a US-based specialty drugmaker, Arbor Pharmaceuticals.

China Going Global Investment Index

| Rank | Healthcare |
|------|-------------|
| 1 | US |
| 2 | Japan |
| 3 | Switzerland |
| 4 | South Korea |
| 5 | Israel |
| 6 | Germany |
| 7 | Sweden |
| 8 | Norway |
| 9 | Denmark |
| 10 | France |

Source: The Economist Intelligence Unit.



Acquiring foreign private hospitals is also a trend, fitting in with government efforts to overhaul the quality of healthcare institutions and rising spending on private healthcare. To raise their local offerings, Chinese companies have invested abroad in mid- to high-end hospitals, often focusing on specific areas such as cancer treatment, cardiovascular and cerebrovascular therapy, eye treatment and plastic surgery. In 2016 Shanghai-based Luye Medical Group acquired Healthcare Australia, one of Australia’s largest private-hospital operators.

Sector trends

In future, ODI by Chinese healthcare firms will no longer just be driven by M&A that will boost their domestic standing, but also by a desire to grab global market share. Opportunities are likely to be greatest in developing markets where Chinese firms will have a cost advantage over their developed-economy rivals. Already, some firms are beginning to expand. In 2016 one of China’s biggest pharmaceutical firms, Humanwell Healthcare, invested US\$80m in a drug manufacturing plant in Ethiopia. An anti-malaria drug, Artesun, developed by Fosun Pharma has become widely used in parts of Africa. In time, healthcare offerings by Chinese firms may be competitive across a wider geography as their quality improves: medical services are a priority sector under the MIC 2025 initiative, suggesting that financing for R&D will be readily available.

Chinese firms may also become internationally competitive in healthcare application Internet of Things (IoT) technology. For example, Tencent has invested heavily in mobile medical applications that allow remote health monitoring, health database and data communication, as well as pharmacy automation. This area could be a target for Chinese ODI in future.

Telecommunications

The top ten for Chinese ODI in telecoms reflects both the attraction of developed markets for high-technology acquisition opportunities and the potential of emerging markets for telecoms infrastructure and consumer goods. Japan and the US rank top, owing to strengths in communication-related technology innovation, dominance in semiconductors and general strengths in the information and communications technology (ICT) industry. Conversely, Pakistan, at ninth place, is one of the largest telecoms markets in South Asia. In our forecast period (2018-22) the country shows high growth in market demand for broadband, internet services and mobile phones. As a flagship country under China’s BRI, Pakistan has an extra edge in attracting Chinese investment.

China Going Global Investment Index

| Rank | Telecommunications |
|------|--------------------|
| 1 | Japan |
| 2 | US |
| 3 | India |
| 4 | Turkey |
| 5 | Egypt |
| 6 | Pakistan |
| 7 | Israel |
| 8 | Kazakhstan |
| 9 | Philippines |
| 10 | Malaysia |

Source: The Economist Intelligence Unit.



National policy support

China's ODI in telecoms has already taken off. In 2016, the latest official data available from the commerce ministry, Chinese firms recorded 109 outbound deals in information transmission, software and information-technology services, with investment amounts growing by a whopping 214% to US\$26.4bn. In terms of geographical spread, ICT ODI flows in 2016 were largely in the US, accounting for 29% of total flows, followed by the EU and ASEAN. Chinese telecoms infrastructure firms, such as Huawei and ZTE, are long established in most international markets.

National industrial policy is adding an impetus to ODI in the ICT sector, particularly in developed markets. The MIC 2025 strategy sets a number of production localisation targets and market-share goals in areas including integrated circuits, software and intelligent manufacturing. China has embarked on a global acquisition spree to acquire the technology and technical know-how to assist in this industrial development. Tsinghua Unigroup, the leading domestic semiconductor firm, acquired stakes in two US-based chipmakers, RDA Microelectronics and Lattice Semiconductor. Other notable investments include Huawei's US\$42m acquisition in 2016 of Hexatier, an Israeli ICT security start-up, as well as ongoing efforts in 2017 by Alibaba to acquire Moneygram, a US money transfer service, as part of its international mobile payments expansion strategy.

China is also actively participating in international-standards development to give its companies and products a competitive edge in third-country markets. The adoption of Chinese domestic standards abroad will better position Chinese ICT companies to capture global market share, particularly in developing countries with low levels of technology, as well as in areas of emerging technology, such as 5G for mobile networks. To do this, China has enhanced its engagement with a number of international standards bodies, including the International Organisation for Standardisation (ISO) and the International Telecommunication Union. These efforts paid off in November 2017 when ISO adopted two Chinese domestic commercial encryption standards, SM2 and SM9, into the international encryption-standards framework.

Overseas challenges

This aggressive overseas expansion in ICT, however, has encountered significant resistance recently owing to issues with national security and protectionism. Much of this stems from the support that Chinese ICT firms receive from the state, which has fed perceptions that they are immutable from the government.

Since 2012 the US has banned Huawei and ZTE from investing in its telecoms infrastructure because of national-security concerns. CFIUS, which is charged in the US with screening foreign investments and assessing their impact on national security, has recommended that the US reject several Chinese investments in US technology companies since 2015—particularly in semiconductors. Tsinghua's effort to buy US-based Micron Technology for a reported US\$23bn stumbled in mid-2015 amid such concerns, while CFIUS pressure also saw the same company's attempted purchase of a US hard-disk maker, Western Digital, collapse in early 2017.



China's ICT ODI in developing countries, however, has been markedly different—both in terms of receptiveness and the purported goals of the projects and acquisitions. China has often used telecoms and network infrastructure as part of an aid-and-investment package, in exchange for trade deals usually covering the host country's commodities and energy sectors. The BRI has given an additional push: besides overland and maritime trading routes, the initiative also involves setting up a “Digital Silk Road”. China's State Council has encouraged telecoms companies to focus ODI in areas like internet access services, broadband connectivity, network infrastructure and other telecoms-related areas, as well as in value-added services such as telecoms R&D.

Sector trends

This strategy will have long-term implications. Once basic infrastructure is established and these markets mature, Chinese companies providing telecoms operational or value-added services in China or developed markets—such as mobile-device sellers, or companies providing cloud computing, IoT or mobile payment services—are likely to be able to tap into new consumer markets that are already familiar with Chinese brands, industry standards and potential services. Alipay and WeChat Pay have already begun expanding into markets in North America, Europe and South-east Asia. It is likely that this shift away from infrastructure and into value-added services will establish itself as a future trend in Chinese ICT ODI.

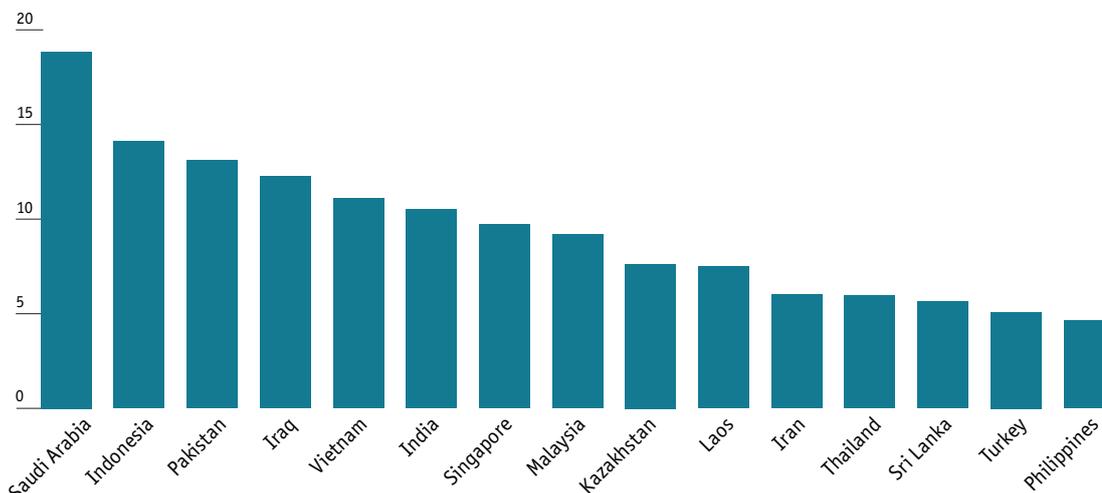


III. The Belt and Road Initiative

Chinese ODI activities in countries along the “Belt and Road” have taken place long before the strategy was first proposed in 2013. The political and financial support for the BRI, however, has created an additional incentive for Chinese companies to explore these markets, or even to rebrand existing investments under the BRI umbrella. Since 2010, for example, officials have planned a railway between Kunming (the capital of China’s Yunnan province) and Vientiane (the capital of Laos), as part of a larger rail infrastructure project connecting China to Singapore—and since end-2013 Chinese officials have cited this rail project as a signature example of BRI collaboration.

The majority of BRI projects are in infrastructure construction, largely in the form of foreign contracted projects backed by discounted loans from China. Such lending can go directly to recipient governments and is typically conditional on using it to fund a specific infrastructure project involving a Chinese company. Repayment of the loan can sometimes take place in the form of resources. China’s policy banks also loan directly to Chinese companies implementing BRI projects.

China’s contracted projects in BRI countries, 2013-15
(US\$ bn)



Sources: Global Investment Tracker; The Economist Intelligence Unit.

While data on concessional lending are opaque, the latest figures from the Export-Import Bank of China (Exim Bank, one of China’s main policy lenders) indicate that its outstanding concessional loans stood at Rmb252.2bn at end-2014. This number is likely to have risen significantly over the past two years, with Chinese media reporting that around 50 SOEs have participated in roughly 1,700 BRI projects between 2014 and 2017.



BRI investment flows underwhelm

Despite a rise in foreign contracted projects under the BRI, ODI flows to BRI countries from China are yet to accelerate notably since 2013. There have been some prominent M&A deals, but mainly in “safe” BRI countries: in July 2017 a Chinese consortium, led by Chinese real-estate developer Vanke, purchased Singapore-based Global Logistics Properties for US\$11.6bn.

According to the commerce ministry, Chinese non-financial ODI flows into BRI countries grew by 18.2%, to US\$14.8bn, in 2015 (the earliest data available). In 2016, however, ODI into BRI countries contracted by 2%, to US\$14.5bn, and have also struggled in 2017. In January–September year-to-date Chinese ODI to BRI countries fell by 13.7%.

The soft ODI flows to BRI countries might be partly down to a tightening in overseas-investment approvals since 2016, although the central government has also made clear that this effort was targeted at “irrational deals” rather than BRI investments, which are a political priority. As such, the decline in flows to BRI countries probably also relates to hesitancy among Chinese companies about investing in BRI countries, where levels of operational risk are high. Indeed, there have been several prominent stalled projects. In August 2017 a land rights dispute stalled a US\$5bn Chinese rail project in Indonesia and in November Nepal cancelled a US\$2.5bn deal with a Chinese corporation to construct the country’s biggest hydropower plant, owing to irregularities in the project bidding process; Pakistan cancelled a similar hydropower project a few days later because of disagreements over financing and ownership conditions.

Moreover, while the central authorities can facilitate SOE-led projects in BRI countries through concessional lending, they have fewer levers to persuade private Chinese firms—who have driven ODI flows in recent years—to follow as well. Such companies are more even more cognisant of the risks associated with BRI investment, and may lack the insurance buffers that the government can provide to SOEs.

Enhancing risk management

There are early signs that the Chinese government is looking to ameliorate the risks associated with the BRI in order to push up investment. In August 2017 the Ministry of Finance and the State Council published separate policy documents on BRI investments by SOEs, setting broad parameters covering due diligence, feasibility and ensuring the operational maintenance (and success) of BRI projects. Services firms are also reporting that Chinese loan- or insurance-issuing institutions, such as Sinosure and China’s various policy banks, are now applying higher standards in BRI project applications.

The government is also trying to entice more domestic private enterprises into the BRI by stressing its policy significance (the initiative was written into the Chinese Communist Party constitution at the 19th national congress in October 2017). Private firms may reflect that a commitment to the BRI is advisable from a government-relations perspective. Some of China’s most acquisitive international companies, such as Wanda Group (a real-estate developer) and HNA, which have come under criticism for making “speculative” overseas investments, have signalled that they will bring their international priorities into closer alignment with the BRI.



Stimulating interest in the initiative from outside the state sector could be important, as a tightening credit environment in China may limit the amount of state financing for the project. New regulations due to be enforced in January 2018 over domestic policy banks, including China Development Bank and Exim Bank, aim to enhance supervision and due diligence. State-owned commercial banks are also under pressure to repair balance sheets after a number of years of excessive lending. Key to amplifying the impact of the initiative will be getting domestic private firms to tap their own resources in order to invest in the BRI. In time, the same imperative may also present opportunities for foreign firms from third countries, which have to date largely operated on the sidelines of the BRI.

Engaging with the BRI

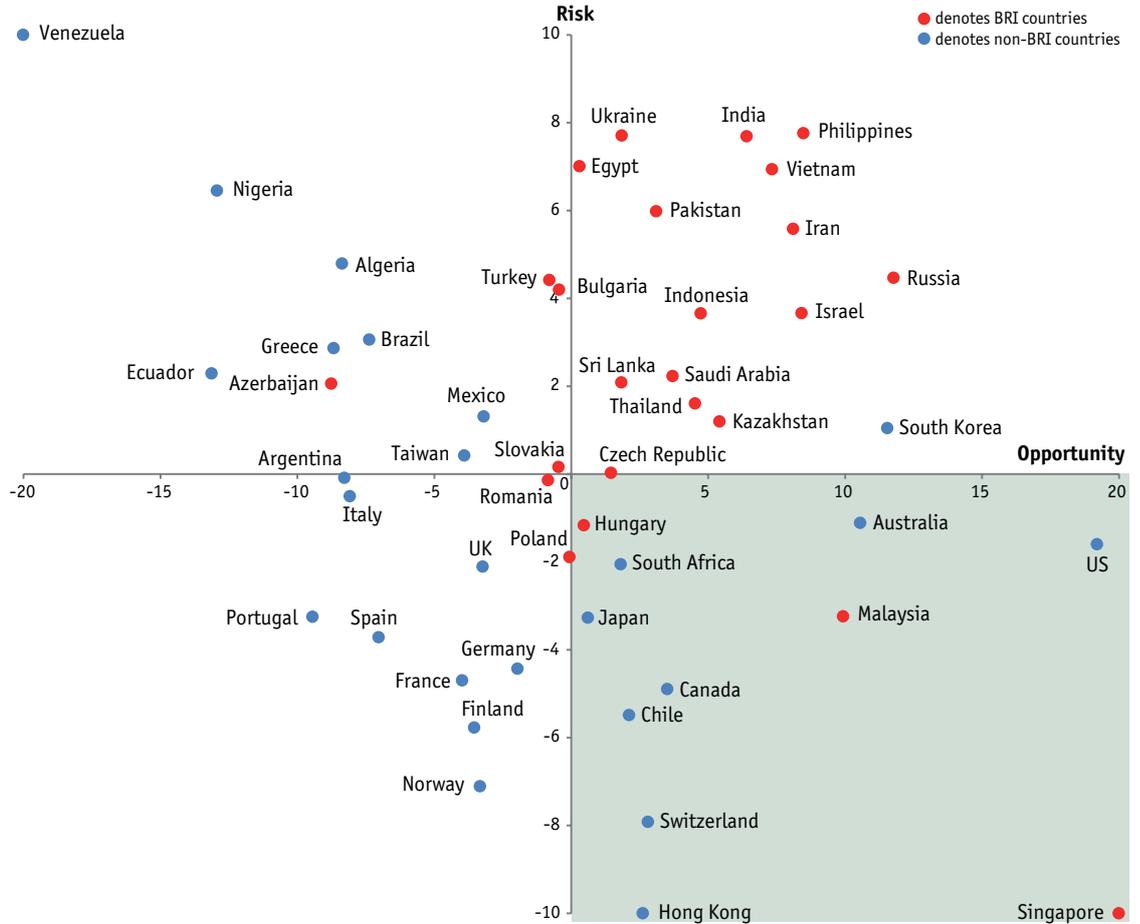
Stepped up regulation will not guarantee the success of BRI projects, but does suggest that China is looking for a sustainable model. This is important because the BRI will also help to achieve a number of policy objectives: for instance, further issuance of renminbi-denominated loans will promote internationalisation of the currency. Besides enhancing China's geopolitical influence, the implementation of Chinese-led projects in developing markets will help to expand Chinese regulatory norms and technical standards, which, in turn, may create momentum and opportunities for Chinese consumer-facing companies to tap into new markets. Domestically, the growing number of provincial and prefecture-level projects linked to the BRI, especially in frontier areas like Chongqing, Xinjiang, Guangxi and Fujian, further tie local economic development in these areas to the success of the initiative.

One approach for Chinese companies looking to engage with the BRI is to search for investment opportunities in countries that provide the right balance of opportunity and risk. Our assessment, based on the China Going Global Investment Index, indicates that a select group of BRI countries are "high opportunity, low risk", as shown in the bottom-right quadrant.

Malaysia and Singapore stand out as attractive BRI destinations, providing an investment environment that offers opportunities as well as low levels of risk. Although there have been political tensions between Malaysia and China in the past, the bilateral relationship is currently strong. Furthermore, the country scores highly in the opportunity pillar owing to a favourable outlook for economic growth and export manufacturing, as well as open policies towards foreign investment (several China-backed infrastructure projects are already under way in Malaysia).



China Going Global Investment Index: opportunity and risk matrix



Note: a high opportunity score and a low risk score represent the best investment combination (bottom-right quadrant). An economy's opportunity score is its opportunity sub-index value, minus the average opportunity value across all countries; the risk score is based on its risk sub-index value, minus the average risk value across all countries.

Source: The Economist Intelligence Unit.

In our assessment, most BRI countries are identified as “high opportunity, high risk”. Firms entering these markets need to take appropriate steps to manage investment risk if they are to capitalise on the opportunities they present. Our assessment suggests taking a cautious approach to investing in BRI countries such as Egypt, Turkey and Ukraine. These are countries characterised by risky operating environments that are likely to yield only modest opportunities.

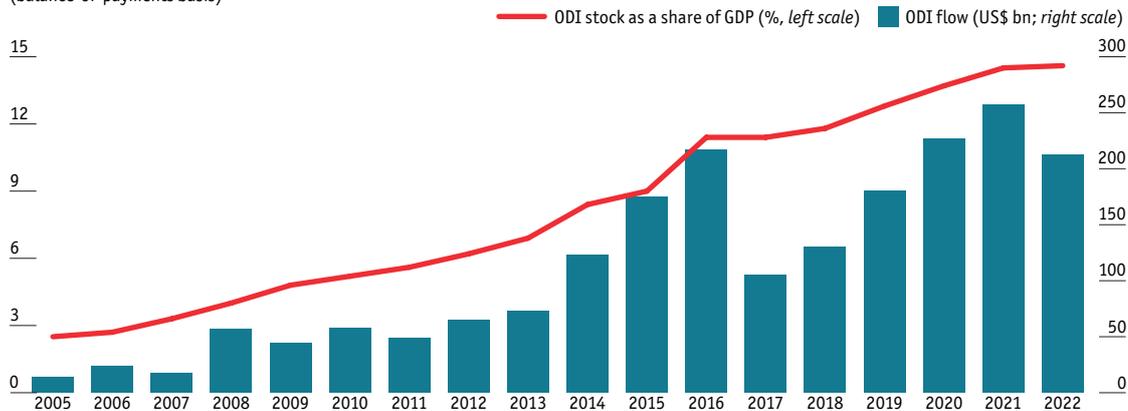


IV. Conclusion

The 2017 slump in Chinese ODI is unlikely to be a reflection of the future trend. China's ODI stock as a share of its GDP was only 10.9% in 2016, a much lower level than in large developed economies such as the US (28.9%), Japan (27.6%) and Germany (57%). This suggests that there is still plenty of room for growth, and the drivers of ODI from China in recent years—a desire to grasp global market share and acquire technology, brands and resources—remain in place. We expect that China's ODI flows (on a balance-of-payments basis) will return to growth in 2018.

China's ODI forecast

(balance-of-payments basis)



Sources: IMF; The Economist Intelligence Unit.

Nevertheless, we will probably not see a return to the exuberant deal-making of 2016. The government has heightened supervision over overseas investment and it is likely to remain concerned about risks posed by excessive capital outflows for several years yet. An expected tightening in domestic credit conditions could also have an impact on ODI by making it more difficult for companies to tap bank lending. This will encourage firms to align their plans with areas where financing is still available, such as under MIC 2025 or the BRI.

Heightened regulation over ODI will create challenges for Chinese firms. Clearly a push is under way to prioritise investment in BRI countries. In such circumstances Chinese companies should adopt strategies to help to manage and hedge risk. The BRI presents significant potential opportunities, but firms should be selective about the regions, countries and industries that they choose to engage with under its umbrella.

Chinese SOEs are likely to remain the main participants in the BRI, but the country's private companies still have an important role to play in shaping Chinese ODI. Ultimately, it will be the likes of Alibaba, Huawei and Tencent that determine whether Chinese companies emerge as powerful international brands or remain tethered to their domestic roots. The cutting edge that China is developing in industries such as EVs, fintech and renewable energy suggest that they could make this transition.



V. Appendix

Methodology

The 2017 update of the China Going Global Investment Index ranks 60 major economies across 57 indicators, distributed across four sub-indices spread between an “opportunity” pillar and a “risk” pillar. In addition, we have developed six separate indices covering six industries: automotive, consumer goods, energy, financial services, healthcare and telecommunications. Our coverage in this update to the index is slightly less than the previous versions in 2015 and 2013, when we included 67 countries.

The index is informed by an EIU survey of 110 Chinese companies.³ We asked the companies about their motivations and concerns when making ODI decisions, and their answers form the basis for our selection of indicators. The index weighting scheme is based on importance rated by the survey respondents. We assign a 67% weight to the opportunity pillar, which covers indicators such as market size, natural resources, innovation and corporate brands. The risk pillar carries a 33% weight, covering indicators such as political stability, regulatory predictability, international tensions, cultural affinity and operational risks. The weights in our model can be adjusted and tailored for different risk appetites.

Some refinements were made to this update of the index to reflect changes in the economic and policy environment. We introduced an indicator into the index on BRI membership and have also integrated data on patent applications as an additional proxy for innovation capacity.

The industry indices comprise industry-specific data. Forward-looking indicators were built into a market opportunity sub-index for each industry, including our forecasts for population, income, consumption and wage growth. To assess industry development, we incorporated data such as on the number of top brands in a given country. Limits to data availability mean that our industry rankings are not as comprehensive as our overall country index, but we still evaluated no less than 50 countries for each industry.

³ To download the report, *A brave new world: the climate for Chinese M&A abroad*, visit: <https://perspectives.eiu.com/economic-development/brave-new-world>

Index structure and data sources

| | Indicator name | Source | Period |
|--------------------|---|--------|-----------|
| Market opportunity | Real GDP av growth | EIU | 2016-2020 |
| | Private consumption av growth | EIU | 2016-2020 |
| | Gross fixed investment av growth | EIU | 2016-2020 |
| | Service sector as % of GDP | EIU | 2016 |
| | Distance between host country and large markets | CEPII | 2011 |
| | Distance to China | CEPII | 2011 |
| | Average nominal wage av growth | EIU | 2016-2020 |
| | Overall unit labour costs level | EIU | 2016 |
| | Total population | EIU | 2012-2016 |
| | Population av growth forecast | EIU | 2016-2020 |
| | Personal disposable income per head av growth | EIU | 2016-2020 |



| | Indicator name | Source | Period |
|---|--|--|--|
| Natural resources | Arable land per person | World Bank | 2014 |
| | Coal reserves | BP Statistical Review of World Energy | 2012-2016 |
| | Natural gas reserves | BP Statistical Review of World Energy | 2012-2016 |
| | Crude oil reserves | BP Statistical Review of World Energy | 2012-2016 |
| | Copper reserves | USGS | 2012-2016 |
| | Iron ore reserves | USGS | 2012-2016 |
| | Innovation | Patents in force | WIPO |
| Innovation inputs and environment | | EIU innovation index | 2004-2008 |
| No of brands in Global 500 | | Brand Finance | 2016 |
| Research and development intensity | | World Bank | 2016 |
| Average years of schooling of population over 15 year in 2010 | | Barro Lee | 2016 |
| Bilateral relations with China | | Belt and Road Initiative membership | Xinhua News |
| | Trade dependency with China | MOFCOM/EIU | 2016 |
| | Number of RTAs signed with China | WTO | Nov 2017 |
| | Number of RTAs signed with China's largest export market | WTO | Nov 2017 |
| | Macroeconomic stability | Forecast of exchange rate volatility | EIU |
| Forecast of consumer prices volatility | | EIU | 2016-2020 |
| Domestic political and regulatory risk | | Risk of armed conflict | EIU Business Environment Ranking (BER) |
| | Risk of social conflict | EIU BER | 2018-2022 |
| | Risk of expropriation of foreign assets | EIU BER | 2018-2022 |
| | Government regulation on setting up new private business | EIU BER | 2018-2022 |
| | Restrictiveness of labour laws | EIU BER | 2018-2022 |
| | Extent of wage regulation | EIU BER | 2018-2022 |
| | Hiring of foreign nationals | EIU BER | 2018-2022 |
| | Government policy towards foreign capital | EIU BER | 2018-2022 |
| | FDI inflows as % of GDP | EIU | 2012-2016 |
| | External debt as % of GDP | EIU | 2012-2016 |
| International political and regulatory risk | Voting affinity with China in UN General Assembly | Erik Voeten | 2004-2014 |
| | No of militarised disputes with China since 1949 | COW | 1949-2001 |
| | No of militarised disputes with China since 1978 | COW | 1949-2001 |
| | No of anti-dumping and anti-subsidy cases against China | WTO | 2006-2016 |
| | No of WTO dispute settlement cases against China | WTO | 2006-2016 |
| | No of rejected investments from China | Heritage Foundation | 2005-2016 |
| | Bilateral investment treaty with China in force | World Bank | Nov 2017 |
| | Foreign economic cooperation project value | MOFCOM | 2015 |
| | Cultural affinity | % of population viewing China favourably | Pew |
| Ethnic Chinese as % of total population | | OCAC | 2012 |
| Stock of Chinese-born migrants | | World Bank | 2013 |
| Chinese language use | | CIA | 2014 |



| | Indicator name | Source | Period |
|------------------|------------------------------------|---------|-----------|
| Operational risk | Incidence of strikes | EIU BER | 2018-2022 |
| | Production of electricity per head | EIU BER | 2018-2022 |
| | Road density | EIU BER | 2018-2022 |
| | Rail density | EIU BER | 2018-2022 |
| | Fixed line telephone faults | EIU BER | 2018-2022 |
| | Quality of port infrastructure | EIU BER | 2018-2022 |

Industry indices

| | Indicator name | Source | Period |
|--|---|---|-------------------|
| Automobile | Growth in passenger car stock | EIU Industry Data | 2016-2020 |
| | Growth of commercial vehicle registrations per capita | EIU Industry Data | 2016-2020 |
| | Imports of motor vehicle and chassis from China | MOFCOM | 2012-2016 |
| | Patent granted in engines, pumps, turbines | WIPO | 2010-2015 |
| | Patent granted in thermal processes and apparatus | WIPO | 2010-2015 |
| | Patent granted in mechanical elements | WIPO | 2010-2015 |
| | Patent granted in transport | WIPO | 2010-2015 |
| | Patent granted In electrical machinery, apparatus, energy | WIPO | 2010-2015 |
| | No of automotive brands in Global 100 | Brand Finance | 2017 |
| Consumer goods | Growth of retail sales | EIU Industry Data | 2016-2020 |
| | Growth of consumer expenditure in food, beverages & tobacco | EIU Industry Data | 2016-2020 |
| | Market demand for clothing | EIU Industry Data | 2016-2020 |
| | Market demand for footwear | EIU Industry Data | 2016-2020 |
| | Market demand for household furniture | EIU Industry Data | 2016-2020 |
| | Market demand for household textile products | EIU Industry Data | 2016-2020 |
| | Market demand for soaps and cleaners | EIU Industry Data | 2016-2020 |
| | Market demand for electrical appliances and houseware | EIU Industry Data | 2016-2020 |
| | Market demand for household audio and video equipment | EIU Industry Data | 2016-2020 |
| | No of consumer brands in Global 100 | Brand Finance | 2017 |
| | EIU retail and wholesale network rating | EIU Industry Data | 2016-2020 |
| | Internet users | EIU Industry Data | 2012-2016 |
| | Adults who report owning a smartphone | Pew | 2016 |
| | Energy | Growth of gross domestic energy consumption | EIU Industry Data |
| Growth of petroleum product consumption | | EIU Industry Data | 2016-2020 |
| Growth of natural gas consumption | | EIU Industry Data | 2016-2020 |
| Growth of coal consumption | | EIU Industry Data | 2016-2020 |
| Growth of nuclear consumption | | EIU Industry Data | 2016-2020 |
| Growth of hydro consumption | | EIU Industry Data | 2016-2020 |
| Growth of geothermal consumption | | EIU Industry Data | 2016-2020 |
| Growth of combustible renewables and waste consumption | | EIU Industry Data | 2016-2020 |



| | Indicator name | Source | Period |
|--------------------|--|-------------------|-----------|
| | Growth of solar/wind/other consumption | EIU Industry Data | 2016-2020 |
| | Petroleum product consumption | EIU Industry Data | 2016-2020 |
| | Petroleum products: Net imports | EIU Industry Data | 2012-2016 |
| | Natural gas consumption | EIU Industry Data | 2016-2020 |
| | Natural gas: Net imports | EIU Industry Data | 2012-2016 |
| | Coal consumption | EIU Industry Data | 2016-2020 |
| | Coal: Net imports | EIU Industry Data | 2012-2016 |
| | Total energy consumption | EIU Industry Data | 2016-2020 |
| | Total energy consumption per capita | EIU Industry Data | 2016-2020 |
| | Maximum electrical capacity per capita | EIU Industry Data | 2012-2016 |
| | Gross domestic electricity consumption per capita | EIU Industry Data | 2016-2020 |
| | Electricity: Net imports (% of total consumption) | EIU Industry Data | 2012-2016 |
| | Growth of electricity consumption | EIU Industry Data | 2016-2020 |
| | Gross electricity generation per person | EIU Industry Data | 2012-2016 |
| | Electricity: Net imports | EIU Industry Data | 2012-2016 |
| | Nuclear energy consumption | EIU Industry Data | 2016-2020 |
| | Total no of nuclear reactors | EIU Industry Data | 2016-2020 |
| Financial services | Bank capital and reserves/assets | EIU Industry Data | 2012-2016 |
| | Bank lending to public sector/total lending | EIU Industry Data | 2012-2016 |
| | Bank loans/assets | EIU Industry Data | 2012-2016 |
| | No of financial services brands in Global 500 | Brand Finance | 2017 |
| | Bank non interest income (net)/total revenues | EIU Industry Data | 2012-2016 |
| | Bank overhead ratio (operating exp/revenues) | EIU Industry Data | 2012-2016 |
| | Bank provisions/total loans | EIU Industry Data | 2012-2016 |
| | Bank return on assets | EIU Industry Data | 2012-2016 |
| | EIU banking sector risk rating | EIU | 2012-2016 |
| | Foreign financial asset ownership as % of total assets | EIU Industry Data | 2012-2016 |
| | Liquid hedging options | BIS | Nov 2017 |
| | Local stock market capitalization | EIU Industry Data | 2012-2016 |
| | Forecast of budget balance (% of GDP) | EIU Industry Data | 2016-2020 |
| | Forecast of public debt (% of GDP) | EIU Industry Data | 2016-2020 |
| | Forecast of money market interest rate volatility | EIU Industry Data | 2016-2020 |
| | Forecast of long-term bond yield volatility | EIU Industry Data | 2016-2020 |
| Healthcare | Av % of population aged 0 -14 | EIU Industry Data | 2016-2020 |
| | Av % of population aged 65 and over | EIU Industry Data | 2016-2020 |
| | Av of life expectancy, male | EIU Industry Data | 2016-2020 |
| | Av of life expectancy, female | EIU Industry Data | 2016-2020 |
| | Infant mortality rate | EIU Industry Data | 2016-2020 |
| | Cancers death rate | EIU Industry Data | 2010-2014 |



| | Indicator name | Source | Period |
|--------------------|--|-------------------|-----------|
| | Doctors (per 1,000 pop) | EIU Industry Data | 2012-2016 |
| | Hospital beds (per 1,000 pop) | EIU Industry Data | 2012-2016 |
| | Healthcare spending (per head) | EIU Industry Data | 2016-2020 |
| | Healthcare spending (% of GDP) | EIU Industry Data | 2016-2020 |
| | Pharmaceuticals sales per person | WIPO | 2016-2020 |
| | No of healthcare brands in Global 100 | Brand Finance | 2017 |
| | Patent granted in medical technology | WIPO | 2010-2015 |
| | Patent granted in biotechnology | WIPO | 2010-2015 |
| | Patent granted in pharmaceuticals | WIPO | 2010-2015 |
| Telecommunications | Mobile subscriptions | EIU Industry Data | 2012-2016 |
| | Growth in no of mobile phone subscriptions | EIU Industry Data | 2016-2020 |
| | Growth in the no of personal computers | EIU Industry Data | 2016-2020 |
| | Growth in the no of internet subscriptions | EIU Industry Data | 2016-2020 |
| | Telephone main lines | EIU Industry Data | 2012-2016 |
| | Internet users | EIU Industry Data | 2012-2016 |
| | Broadband subscriptions | EIU Industry Data | 2012-2016 |
| | Cable modem internet subscriptions | EIU Industry Data | 2012-2016 |
| | DSL internet subscriptions | EIU Industry Data | 2012-2016 |
| | Growth of total information technology (IT) spending | EIU Industry Data | 2016-2020 |
| | Growth of IT hardware spending | EIU Industry Data | 2016-2020 |
| | Growth of packaged software sales | EIU Industry Data | 2016-2020 |
| | Growth of spending on services | EIU Industry Data | 2016-2020 |
| | No of IT businesses with revenue >US\$100m | EIU Industry Data | 2010-2013 |
| | No of IT businesses with revenue US\$100-500m | EIU Industry Data | 2010-2013 |
| | No of IT businesses with revenue US\$500m+ | EIU Industry Data | 2010-2013 |
| | Growth of personal computer cost | EIU Industry Data | 2010-2011 |
| | No of telecoms brands in Global 500 | Brand Finance | 2017 |
| | Patent granted in audio-visual technology | WIPO | 2010-2015 |
| | Patent granted in telecommunications | WIPO | 2010-2015 |
| | Patent granted in digital communication | WIPO | 2010-2015 |
| | Patent granted in basic communication processes | WIPO | 2010-2015 |
| | Patent granted in computer technology | WIPO | 2010-2015 |
| | Patent granted in IT methods for management | WIPO | 2010-2015 |
| | Patent granted in semiconductors | WIPO | 2010-2015 |
| | Patent granted in optics | WIPO | 2010-2015 |

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