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China's Belt & Road Initiative, and the impact on commercial insurance

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Foreword

The world is changing rapidly. We strongly believe that China's future depends on bold strategy and robust execution. To this end, the "Belt and Road Initiative", or "One Belt One Road" as articulated by President Xi, will be a key driver of China's development in the next 10 years and beyond.

Since inception of the idea in 2013, great progress has been made. However, some question whether the momentum can be sustained, or even if the idea fits with Chinese values. In our view, it is important to recognise that in contrast to other national-level strategy programs which mostly follow the five-year planning cycle, from the start One Belt One Road has been a long-term and global ambition. The program will entail many years of intra-regional and cross-country cooperation, and will foster sustainable economic growth and international prosperity.

The investments that are part of the program will not be one-off, but will be sustained over many years. This is something to be celebrated. China does not exist in isolation and cannot work everything out by itself. It should cooperate with other nations, and one way is to engage and deepen our relationships with countries along the path of the old Silk Road created thousands of years ago.

Against the backdrop of China's ambition to bring the world closer together, this paper addresses the overall scope of the Belt & Road Initiative, including the implications for the insurance industry. We would like to thank our experts in both the research and business areas for their contribution. The analysis is based not only on data, but also knowledge. Similarly, the vision is based not only on projections but also real-world experience. We hope you find the paper illuminating and look forward to having the chance to discuss this inspiring topic with you.

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Executive summary

Growth in China has been very strong, but the economy remains vulnerable to external shocks.

The Chinese economy has expanded rapidly over the last 30 years, with annual gross domestic product (GDP) growth averaging about 10%. Growth has slowed in more recent years due to weaker demand globally. China remains vulnerable to external shocks because of its reliance on investment and net exports, and this has prompted the government to try rebalance the economy to a more domestic-consumption growth model.

The government wants to increase China's integration with the world economy. B&R will be a key driver of this.

At the same time, fostering improved integration into the world economy has become an important item on the government's growth agenda. A significant milestone was the formal launch of "One Belt, One Road" (referred to in this report as the Belt and Road (B&R) Initiative) in March 2015. The aim of this very large-scale program is to improve connectivity across China and with the rest of Eurasia, through building a network of infrastructure facilities and expanding existing (and ancient) trade routes.

Infrastructure facilities will be a central pillar of B&R …

Lack of infrastructure has held back development in many B&R countries. This report estimates that the total infrastructure gap in the B&R region will be around USD 20 trillion in the period 2015–2030, with China itself accounting for more than a third of the expected shortfall. Most infrastructure shortages are in the areas of power, transport, water and sanitation, telecommunications and other infrastructure. Many governments of B&R countries have existing plans to upgrade their infrastructure facilities to improve growth potential. The B&R program is a welcome support to such aspirations, and should also enable more efficient coordination and financing of related construction projects.

… triggering a wave of construction and trade liberalisation, and also demand for insurance. Commercial insurers in China could gain an additional USD 23 billion in premiums in 2015–2030.

B&R is expected to trigger a new wave of construction activities and trade liberalisation, which in turn will present opportunities for Chinese enterprises and contractors, and also insurers. B&R projects already announced as of July 2016 have a total value of up to USD 1.2 trillion, and the insurance premium potential coming out of those projects is estimated to be USD 7 billion. This report estimates that USD 5.5 billion of those premiums could go to Chinese insurers. And, the B&R construction projects that may be forthcoming in the period August 2016 to 2030, could generate another estimated USD 27 billion in premiums, of which USD 16 billion could be for Chinese insurers. The main beneficiaries of these projects will be engineering, property and marine insurers. Furthermore, increased trade arising from B&R could bring an additional USD 1.5 billion in premiums for Chinese insurance companies by 2030, of which an estimated USD 600 million would be trade credit premiums. Thus in total, is it projected that B&R could boost commercial insurance premiums in China by USD 23 billion in the period 2015 to 2030.

To maximise the opportunity, China's insurers should look to build a long-term presence in other B&R countries, and focus on their clients' needs.

Chinese firms taking part in B&R will face a new risk environment in those countries in which they invest, as will the insurers supporting their outward-looking endeavours. Within the confines of local regulations, China's insurers should determine the best strategy to build a long-term presence in the new markets, such as by going into partnership with a host-location entity. They should also understand their clients' needs and develop products accordingly. For instance, there are many cases where enterprises have engineering insurance for the construction phase of their projects, but these policies exclude cover for natural disasters. Also, increasingly clients want tailored, "all-in-one" type insurance packages, not separate policies for different lines of business. Customised solutions can provide more efficient risk protection and minimise the cost of insurance for clients.

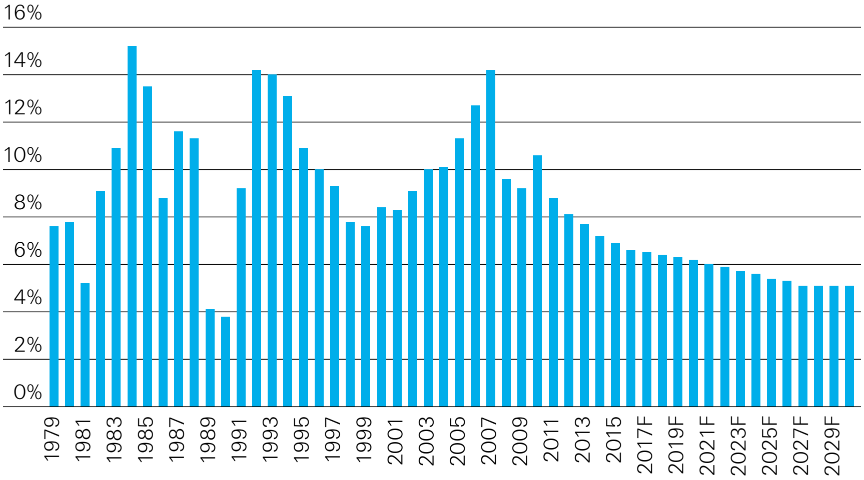
Belt & Road – an overview

The rise of China

China's annual growth has averaged around 10% since the late 1970s.

China opened up its economy to foreign trade and investment in the late 1970s and has experienced rapid development since, with annual real GDP growth averaging around 10% through to 2015 (see Figure 1). This was largely based on inward foreign direct investment (FDI), an expanding manufacturing sector, rising capital formation and productivity, increasing adoption of technology and further liberalisation of China's financial services sector.[1]

Figure 1
China real GDP growth, 1979–2030F, %



F = forecasts
Source: National Bureau of Statistics of China, Swiss Re Economic Research & Consulting.

The economy is rebalancing from export- and investment-led growth to more weight on domestic consumption ...

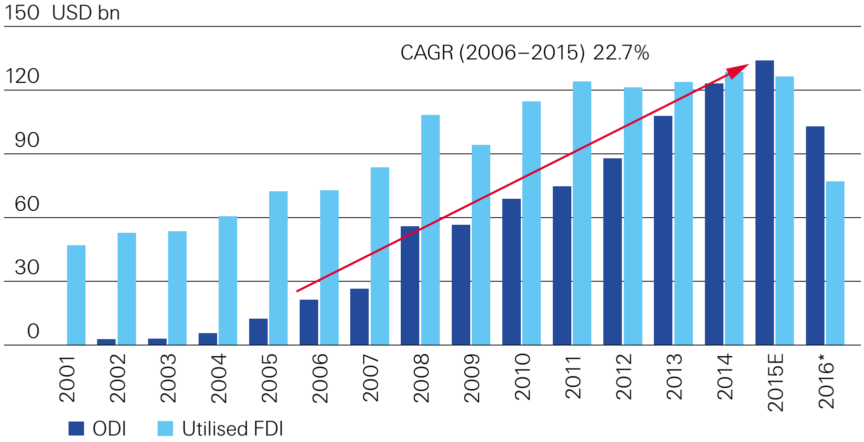
More recently, the Chinese economy has slowed as a result of weaker external demand and investment growth. Notwithstanding the strong performance of the last 30 years, the economy remains vulnerable to external shocks given its reliance on investment and exports. This has led government to seek to rebalance the economy from an export- and investment-oriented to a more consumption-driven model. The new normal is lower, but more stable and sustainable growth.

... and of late, China has become a net exporter of capital and investment.

At the same time, the government is encouraging Chinese enterprises to invest overseas, partly to acquire new technologies and secure supplies of raw materials. Accordingly, outward direct investment (ODI) from China has expanded rapidly, by a compound annual growth rate (CAGR) of 22.7% between 2006 and 2015. Outbound investments are estimated to have surpassed inbound flows for the first time in 2015, making China a net capital exporter and investor.[2] The strong momentum is continuing. For instance, non-financial outbound investment rose by 61.8% year-on-year (yoy) to USD 102.8 billion in the period January to July 2016.[3] In comparison, FDI into China has been slowing, and in the first seven months of 2016 it was up just 4.3% yoy to USD 77.1 billion. The slowdown is in line with the weaker growth in the Chinese economy itself, and also increasing foreign investor interest in other emerging and frontier markets.

[1] K. H. Zhang, *Foreign Direct Investment and Economic Growth in China: A Panel Data Study for 1992–2004*, University of Illinois, 2006, https://faculty.washington.edu/karyiu/confer/beijing06/papers/zhang.pdf
[2] Estimate for 2015 is based on published data for non-financial ODI and its historical share in total ODI.
[3] *Summary of China's non-financial overseas direct investment in the first half of 2016*, Ministry of Commerce for the People's Republic of China, http://www.mofcom.gov.cn/article/tongjiziliao/dgzz/201607/20160701363623.shtml

Figure 2
China's ODI and utilised FDI, 2001–2016



E = estimate, * actual non-financial ODI and utilised FDI for January–July 2016.
Note: For the years 2001-2005, ODI is non-financial outbound investment; post 2005 the numbers are non-financial and financial outbound investment. The 2015 estimate is based on non-financial ODI and its historical share in total ODI. "Utilised FDI" is the part of contractual FDI actually realised.
Source: CEIC, Ministry of Commerce, Swiss Re Economic Research and Consulting.

The Belt and Road Initiative

B&R is a strategic program to improve China's economic and financial integration with the rest of the world.

Background
Improved integration with the world economy and financial markets is fast becoming a central item on China's growth agenda. An important milestone was reached with the launch of the Belt and Road Initiative, also known as the "One Belt, One Road" in March 2015. Initially proposed by President Xi Jinping in 2013, the plan has two components: The Silk Road Economic Belt (the Belt) and a 21st Century Maritime Silk Road (the Road).[4] The Belt will link China with Europe through central and western Asia. The Road will connect China with Southeast Asia, Africa and Europe. Neither the Belt nor the Road follow a specific route. They serve more as a roadmap for how China can further integrate into the world economy. Table 1 details the evolution of B&R.

Table 1
Key milestones in the development of B&R

Time	Milestone
Sep–Oct 2013	Chinese President Xi Jinping proposes B&R for the first time during visits to Kazakhstan and Indonesia.
Oct 2014	21 Asian countries[5] sign an initial batch of Memorandum of Understandings (MoUs) on "Establishing an Asian Infrastructure Investment Bank".
Nov 2014	The Silk Road Fund is established.
Mar 2015	The B&R action plan, *Visions and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road (Visions and Actions)*[6] is published by major Chinese official ministries.
Dec 2015	The Asian Infrastructure Investment Bank is launched with 57 founding members.[7]

Source: Xinhua Finance Agency; Swiss Re Economic Research & Consulting.

[4] The old Silk Road was an ancient trade network connecting China to the Mediterranean Sea
[5] The 21 countries are Bangladesh, Brunei, Cambodia, China, India, Kazakhstan, Kuwait, Laos, Malaysia, Mongolia, Myanmar, Nepal, Oman, Pakistan, the Philippines, Qatar, Singapore, Sri Lanka, Thailand, Uzbekistan and Vietnam.
[6] *Visions and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road*, National Development and Reform Commission, Ministry of Foreign Affairs, and Ministry of Commerce of the People's Republic of China, with State Council authorization, March 2015
[7] For the list of all founding members, please see Asian Infrastructure Investment Bank's website: http://www.aiib.org/html/aboutus/introduction/Membership/?show=0

It is a long-term program that could run for many decades.

B&R is a long-term program to deepen collaboration among participating countries, and to drive sustainable growth. Some initial plans have already been rolled out and actioned, but there is still much to come. According to interviews with governmental bodies in China that have contributed to the planning of B&R, the entire program could continue for up to 30 years. With no specific timeline defined, this report focuses on the possible impacts of the program on China and the insurance industry in the period 2015–2030.

B&R will increase integration and connectivity across Eurasia and Africa.

Six international economic corridors and one maritime silk road

B&R is intended to improve connectivity in Asia and Europe, and with Africa, through a network of infrastructure projects and expansion of existing trade routes (see Figure 3). The Belt component of the initiative spans six international economic corridors across Eurasia, and the Road is a maritime route linking Asia, Africa and Europe. Together, the Belt and the Road will connect 65 countries[8] accounting for 62% of world's population and 30% of global GDP.[9]

The six international economic corridors of the Belt are:

(1) **The China-Mongolia-Russia Economic Corridor** that targets cross-national cooperation among China, Russia and Mongolia for improved rail and road connectivity, and to make customs clearance procedures more efficient.

(2) **The New Eurasia Land Bridge Economic Corridor**. This connects China with Europe through central and western Asia. Currently a rail route runs from Lianyungang in China's Jiangsu province through Alashankou in Xinjiang, all the way to Rotterdam in the Netherlands.[10] To extend the line to more coastal ports in Europe, a new Land Bridge passing through Kazakhstan, Russia, Belarus and Poland is planned.

(3) **The China-Central Asia-West Asia Economic Corridor**, linking Xinjiang with the Mediterranean coast and the Arabian Peninsula through a rail network across central and western Asia. The corridor will connect Xinjiang with Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Turkmenistan in central Asia, and go on to Iran and Turkey.

(4) **The China-Pakistan Economic Corridor** that connects Xinjiang to Pakistan's Gwadar Port. China and Pakistan have mapped out a long-term cooperation plan to build roads, railways, oil and natural gas pipelines, and an optic fibre network along the corridor.

(5) **The China-Indochina Peninsula Economic Corridor**. The intention is to build an extensive network of infrastructure to strengthen cooperation between China and the five countries in the Indochina Peninsula.[11] At present, nine cross-border roads are under construction, and some projects have already been completed.[12]

[8] P. Gong, Z. Song, and W. Liu, "Commodity structure of trade between China and countries in the Belt and Road Initiative", *Progress in Geography*, May 2015.

[9] As of 2014, estimated by Swiss Re Economic Research & Consulting using data from the World Bank. Please see Appendix for more details.

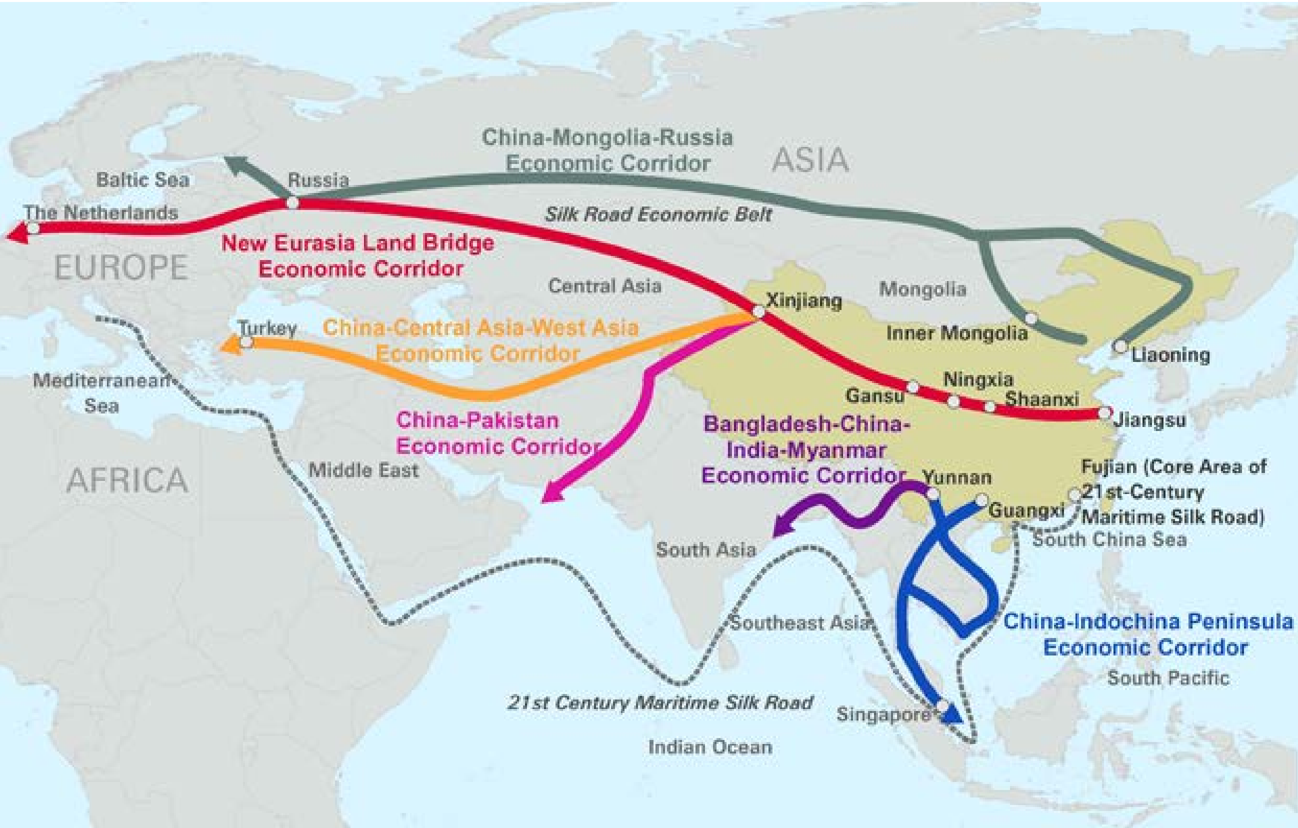
[10] The railway route within China comprises the Lanzhou-Lianyungang Railway and the Lanzhou-Xinjiang Railway, and runs through eastern, central and western China.

[11] The five countries are Vietnam, Myanmar, Thailand, Cambodia and Laos.

[12] The nine cross-border roads are: (1) the China (Kunming)-Vietnam (Honoi – Ho Chi Minh City) highway; (2) the China (Kunming)-Myanmar highway; (3) the China (Kunming)-Myanmar-Thailand (Bangkok) highway; (4) the China (Kunming)-Laos-Thailand (Bangkok) highway; (5) the Laos-Thailand highway; (6) the Vietnam-Laos-Thailand highway; (7) the Myanmar-Thailand-Vietnam highway: (8) the Myanmar-Thailand-Cambodia-Vietnam highway; and (9) the Laos-Thailand- Cambodia highway. Some projects are already complete, such as a highway in Guangxi to the Friendship Gate and Dongxing Port. And Guangxi Nanning has direct flight connections to Beijing, Nanning, Hanoi and other cities in Southeast Asia. *HKTDC Research*, 15 October 2015, http://beltandroad.hktdc.com/tc/market-analyses/details.aspx?ID=471558

(6) **The Bangladesh-China-India-Myanmar Economic Corridor** for closer cooperation among the four named countries in areas such as transport infrastructure, investment and cultural exchange.

Figure 3
The six international economic corridors and one maritime silk road



Source: *Visions & Actions*, Swiss Re GEO team, Swiss Re Economic Research & Consulting.

China's cumulative ODI in B&R projects could top USD 1.0 trillion by 2030.

Financing B&R

B&R is a very large-scale program with huge funding requirements. According to the Ministry of Commerce, since inception of the program to July 2016, China's total ODI in B&R countries has reached USD 51.1 billion.[13] In the period 2015 and 2030, cumulative overseas investment from China into the B&R countries could top USD 1.0 trillion.[14] There will be central and local government funding, but China has also indicated that a mix of traditional and innovative channels will be needed to finance the vast investment amounts involved. While China-led multilateral financial institutions and policy banks are set to power the overall program, commercial loans, equity financing, insurance capital and a variety of private and social funding sources will likely play an important role also.

The AIIB was set up to support infrastructure projects in Asia.

China has been a leading partner in the establishment of a number of multinational financial institutions set up to support infrastructure construction in Asia (see Table 2). The Asian Infrastructure Investment Bank (AIIB) is the largest such body and will become a key funding source for infrastructure programs in Asia, including B&R projects that are aligned with its own objectives. Since its establishment in December 2015, the AIIB has already announced a co-financing project with the

[13] News conference held by the Ministry of Commerce, available on *www.mofcom.gov.cn*, http://www.mofcom.gov.cn/xwfbh/20160817.shtml
[14] Estimated by Swiss Re Economic Research & Consulting. Please see Appendix for more details.

Asia Development Bank (ADB) for the construction of a motorway in Pakistan, and also financing support for four other B&R projects in Indonesia, Bangladesh, Pakistan and Tajikistan totaling USD 500 million.[15]

The SRF will support B&R be promoting public-private sector cooperation.

The Silk Road Fund (SRF) is a facility dedicated to economic and social development in, and improved connectivity among, B&R countries. Positioned as an open-ended fund, the SRF can make use of equity, debt, loans and other diversified investment and financing methods to support B&R projects. It could also become a model of public-private cooperation, as private sector agents seem more willing to participate in projects that have already secured SRF funding.[16] In April 2015, the SRF together with China Three Gorges Corporation (CTG) and Pakistan, announced a first project for investment, namely construction of the Karot hydropower plant in Pakistan.[17]

The BRICS NDB focuses on renewable energy projects which have synergies with B&R objectives.

The BRICS New Development Bank (NDB) is another new multilateral financial institution. Three of its five founding members are B&R countries, and there will likely be synergies between B&R projects and those supported by the BRICS NDB. The BRICS NDB's first batch of loans were issued in April 2016, with repayment due in 12–20 years. Two of the four recipient projects are in B&R countries: combined loans of USD 331 million have been issued to support renewable electricity generation projects in China and India.[18]

Table 2
Quasi-sovereign financial institutions funding for B&R

Institution	Mission	Launch year	Founding members	Size	Initial funding source
Asia Infrastructure Investment Bank	To provide financial support for infrastructure development and regional connectivity in Asia.	2015	57 members	Authorised capital USD 100 bn; Subscribed capital USD 86 bn as of July 2016	Capital subscribed by members (China committed initial investment of USD 50 bn).
Silk Road Fund	To promote economic and social development and interconnection among B&R countries.	2014	SAFE, CIC, EXIM, CDB	First phase USD 10 bn, planned capital USD 40 bn	SAFE: USD 6.5 bn CIC: USD 1.5 bn EXIM: USD 1.5 bn CDB: USD 0.5 bn
BRICS New Development Bank	To provide easier funding and settlements within BRICS member countries for infrastructure construction and sustainable development.	2015	Brazil, Russia, India, China, South Africa (BRICS)	Initial authorised capital USD 100 bn, initial capital contribution USD 50 bn	Each BRICS country USD 10 bn

Note: SAFE = State Administration of Foreign Exchange, CIC=China Investment Corporation, EXIM=Export-Import Bank of China, CDB=China Development Bank.

Source: AIIB, SRF and BRICS NDB websites; Swiss Re Economic Research & Consulting.

[15] Z. Yangpeng, "AIIB to explore cooperation to finance investment projects", *Chinadaily.com.cn*, 9 May 2016, http://www.chinadaily.com.cn/business/2016–05/09/content_25146411.htm; and "AIIB: Slum upgrading project in Indonesia is eligible for a loan of USD 216.5 million", *Sin Chew Daily*, 28 June 2016, http://indonesia.sinchew.com.my/node/61229?tid=5
[16] "The Silk Road Fund will leverage the "One Belt One Road" strategy as an engine with registered capital of CNY 60 billion", *www.custeel.net*, 28 February 2015, http://www.custeel.com/shouye/common/viewArticle.jsp?group=1017&articleID=4107645
[17] *Q&A about the Silk Road Fund's First Project Investment*, Silk Road Fund, 20 April 2015, http://www.silkroadfund.com.cn/enweb/23809/23812/23942/index.html
[18] These two projects include (1) a USD-250-million loan to India's Canara Bank to support 500 megawatts of renewable energy capacity; and (2) an USD-81-million loan to China's Shanghai Lingang Hongbo New Energy Development Co. to fund 100 megawatts of rooftop solar power generation. Another USD 300 million has been credited to Brazil's Banco Nacional de Desenvolvimento Economico e Social to support 600 megawatts of renewable energy capacity, and USD 180 million to South Africa's Eskom Holdings SOC Ltd for power lines that can transmit 670 megawatts and transform 500 megawatts of renewable energy generation. See "Cooperating with ADB, AIIB's first financing projects launched in Pakistan", *www.zaobao.com*, 4 May 2016, http://beltandroad.zaobao.com/beltandroad/news/story20160504–612978 and "The first show for BRICS bank: Total loans of USD 811 million announced to support green energy project in China, India, Brazil and South Africa", *www.gov.cn*, 22 April 2016, http://www.gov.cn/xinwen/2016-04/22/content_5066701.htm

Chinese policy banks, commercial banks and private capital will play an active role in the financing of B&R projects …

Major financing is expected to come from policy banks such as China Development Bank (CDB) and Export-Import Bank of China (Exim Bank), which typically offer favourable funding rates for strategic national projects.[19] At the same time, commercial banks in China have stepped up participation in B&R opportunities. By the end of 2015,[20] nine banks had a network of 56 branches in 24 B&R countries.[21] Compared to state-owned capital, the private sector has the advantage of more flexibility in terms of project selection, risk preference and investment horizons. Regulations have also evolved to ease market access for both foreign and domestic private capital participating in B&R projects in China. Since 2014, China's Market Access Negative List System[22] has been extended to more regions, indicating a relaxation of government control over investment decisions and easier access to private capital.[23] By August 2015, a number of private equity funds investing in B&R projects had been established in China.[24]

… as will insurance capital.

Insurance capital will also play an important role in facilitating B&R projects. China has a huge insurance capital base. At the end of 2015, total assets in China's insurance sector reached over CNY 12 trillion (USD 1.8 trillion).[25] The sector will have the capacity to invest more than an estimated CNY 24 trillion (USD 3.7 trillion) in infrastructure and real estate over the next 20 years. To encourage such spending, in July 2015 the China Insurance Regulatory Commission (CIRC) relaxed rules and expanded the scope of projects for insurers to invest in. Insurers no longer need regulatory approval to invest in infrastructure. Subsequently, the China Insurance Investment Fund (CIIF) was set up in January 2016 as a direct overseas investment vehicle in government-sponsored national strategic projects. The fund targets CNY 40 billion (USD 6.2 trillion) in initial capital, rising to a projected CNY 300 billion (USD 46.2 billion) eventually.[26]

[19] By 2015, CDB had lent USD 156 billion worth of loans to B&R countries, with USD 111 billion loans still outstanding. Exim Bank has financed more than 1000 projects in 49 B&R countries, and has more than USD 80 billion loans outstanding. Though mainly funded by domestic bond issues, policy banks are starting to seek alternative funding sources. In October 2015, CDB completed its first-ever overseas bond issue to support B&R projects. The issue was well received.

[20] "Chinese banks established 1298 branches overseas covering 59 countries and regions", *China News*, 24 June 2016, http://www.chinanews.com/cj/2016/06-24/7916536.shtml

[21] For example see "Interview with CCB's CEO Wang Hongzhang: Infrastructure construction induced by One Belt One Road needs an integrated financial services support", *Xin Hua*, 26 April 2016, http://news.xinhuanet.com/world/2016-04/26/c_1118744533.htm; *China Construction Bank and IE Singapore sign first-ever MOU to finance "One Belt, One Road" infrastructure projects in Southeast Asia"*, International Enterprise Singapore, 25 April 2016; *CCB (Asia) issued the first "Maritime Silk Road" offshore renminbi bond*, CCB (Asia), 23 November 2015, http://www.asia.ccb.com/hongkong/doc/about_us/newsroom/151123-maritime-silk-road-bonds.pdf; and "CITIC Bank provides financing support of CNY 400 billion to boost One Belt One Road strategy", *Yicai.com*, 24 June 2015, http://www.yicai.com/news/4636760.html.

[22] For sectors and businesses that are off-limits to foreign investment, and is an amendment of the existing investment-approval method for categories that are "encouraged", "prohibited", or "restricted".

[23] L. Lan, "Negative list for foreign investment expanded to inland regions", *www.chinadaily.com.cn*, 31 October 2015,"http://www.chinadaily.com.cn/business/2015-10/31/content_22332771.htm

[24] "One Belt One Road investment research report released, PE institutions explore B&R opportunities, PPP opens up new channels for financing", *ZERO2IPO Research*, 31 August 2015, http://research.pedaily.cn/201508/20150831387733.shtml

[25] "China's insurance assets reached CNY 12 trillion in 2015, ranked the third in global market", *China News*, 27 January 2016, http://www.chinanews.com/fortune/2016/01-27/7735012.shtml; USD/CNY exchange rate of 6.5 as of the end of 2015.

[26] A State Council executive meeting decided to establish a CNY-300-billion insurance investment fund to focus on major infrastructure projects and B&R international capacity cooperation projects. See "China Insurance Investment Fund was established, an injection of CNY 300 billion will invest in the real economy", *www.yicai.com*, 24 June 2015, http://www.yicai.com/news/4636740.html

B&R and internationalisation of the renminbi are mutually supportive.

B&R and internationalisation of the renminbi

B&R and renminbi internationalisation go hand in hand. Driving increased cross-border transactions out of and into China, B&R will boost the use of the renminbi in trade and investment.[27] In turn, renminbi internationalisation will facilitate freer flow of goods, services and capital in the region. China has close trade and financial ties with the B&R economies, which together account for 26.8% of its total exports.[28] That proportion is expected to increase to one third by 2025.[29] The renminbi will also play a bigger role in financing infrastructure projects. Chinese outward investors want to issue both foreign currency and renminbi bonds to meet their financing needs in other markets. An example of a facilitating tool to this end is the Bank of China's "BOC One-Belt-One-Road Renminbi" (BOC OBORR) index, launched in December 2015 to help firms monitor foreign exchange movements and to promote greater use of the renminbi in B&R projects.[30]

[27] Renminbi internationalisation has accelerated since 2009 when China established the "dim-sum" bond market and expanded the Cross-Border Trade Renminbi Settlement Pilot Project, which helped establish pools of offshore renminbi liquidity. In 2014, yuan-denominated cross-border trade settlement volumes rose by 41.6% to CNY 6.55 trillion. As of end-2014, the renminbi was one of the top 5 world payment currencies by value. See R. Aitken, "Chinese RMB 'Catching' Japanese Yen Fast In Top-5 Payment Currencies", *Forbes*, 30 January 2015, http://www.forbes.com/sites/rogeraitken/2015/01/30/chinese-rmb-catching-japanese-yen-fast-in-top-5-payment-currencies-where-next/#2f799b3662ef

[28] Based on 2015 China exports, CEIC.

[29] "Zhou Liqun (Chairman of the board of supervisors of China Export&Credit Insurance Corporation (SINOSURE)): in the next 10 years, a total investment of USD 1.6 trillion is expected to be induced by One Belt One Road", *Sina Finance*, 30 January 2015, http://finance.sina.com.cn/hy/20150130/104021437014.shtml

[30] *Bank of China published the B&R RMB exchange rate index (BOC OBORR)*, Bank of China, 2 February 2016, http://www.boc.cn/aboutboc/bi1/201602/t20160202_6330693.html

The infrastructure gap and trade in B&R countries

Infrastructure demand in the B&R region

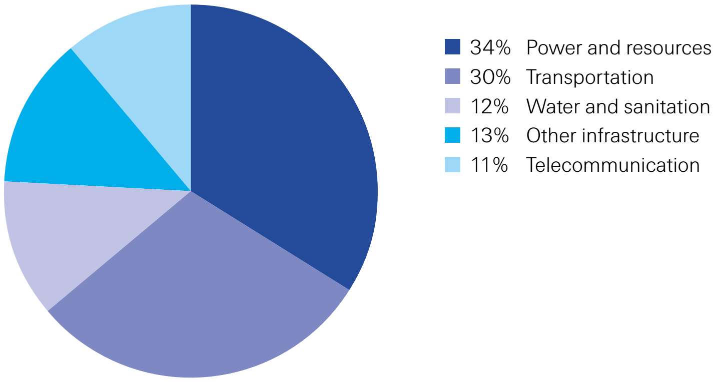
Many B&R markets, including China, have significant infrastructure shortages.

Lack of infrastructure has been a stumbling block for development in many B&R countries. Implementation of the B&R Initiative and the investment in associated projects will help close the region's existing (significant) infrastructure gap. At the same time, the construction projects will present opportunities for the commercial insurance sector.

The infrastructure gap in the B&R region for the period 2015–2030 will be an estimated USD 20 trillion.

The total infrastructure gap in B&R countries could top USD 20 trillion between 2015 and 2030,[31] or about 2.9% of the B&R region's GDP.[32] A breakdown of infrastructure demand shows a large part of the gap is in the areas of power, transport, water, sanitation, telecoms and others (see Figure 4). B&R will facilitate cooperation among the participating countries in, and also financing of, related projects to close the infrastructure gap more efficiently. Many countries already have ambitious construction plans in place. Those on the drawing board will be reviewed with respect to their relevance and potential contribution to the overall B&R program.

Figure 4
Composition of B&R infrastructure demand by sector, 2015–2030E



Note: Other infrastructure includes public buildings and logistics and warehouses.
Source: ADB Institute, Swiss Re Economic Research and Consulting.

Closing the infrastructure gap

B&R will benefit many industries and regions in China.

B&R is set to benefit many industries and countries through increased trade and investment. Cooperation in the energy and resources sectors will accelerate. For instance, the China-Pakistan corridor is motivated in part by the prospect of an alternative route for oil flows from the Middle East. Even traditional industries in China (eg, agriculture in Xinjiang) stand to benefit from B&R.

So far most B&R projects have been in infrastructure.

The majority of B&R projects planned so far have been in infrastructure. To list a few, 41% are in construction of rail and high-speed railway, 14% in power and resources, and 17% in road, airport, port, waterways, bridges and tunnels.[33] As such, B&R has brought most benefit to regions along key transportation and energy routes, and also industries producing inputs for construction (eg, steel and concrete).

[31] Swiss Re Economic Research & Consulting estimates, using data from different international financial institutions. See Appendix for methodology details.
[32] Swiss Re estimates for Asia (excluding Hong Kong, Taiwan, Japan and Korea), eastern Europe and Africa.
[33] According to project data compiled from BHI.com.cn, beltandroad.hktdc.com, NDRC, provincial government and news websites, and the websites of companies involved in B&R projects.

Regional comparative advantages will determine which industries benefit most.

Provincial advantages

Within China, different regions and provinces have different priorities, reflecting local characteristics and resource endowments. At the end of 2015, all of China's provincial governments had finalised their local B&R implementation plans. As indicated in the *Visions and Actions*, the scope of participation of individual provinces or cities will derive from their comparative advantages. These can be geographical, cultural or ethnical proximity to other regional B&R countries, or economic, industrial and financial capabilities. Industries that can best leverage and enhance local comparative advantages are expected to benefit most.

Industry in provinces in China that are gateways to the six economic corridors will benefit significantly.

Many Chinese provinces are essential links in the six international economic corridors, and the one maritime silk road. Provinces in northwest, northeast and southwest China are gateways to central, south, east and western Asia, and also to Russia and Mongolia. For example, Heilongjiang in northeast China forms a crucial link in the China-Mongolia-Russia corridor. Given its relatively low labour costs, Heilongjiang has already prompted businesses from the more-developed southern China to relocate their operations there. Other provinces like Xinjiang, Guangxi and Yunnan are strategically located at the crossroads of several corridors, and will benefit from unique advantages as trade and logistics hubs.

Coastal regions have economic and geographic advantages.

Provinces in the Yangtze River Delta, Pearl River Delta, and the west coast of the Taiwan Straits and Bohai Rim can expect further development in land and sea transport, logistics and port-related activities. Notably, Fujian is the core of the Road given its strategic location on the west coast of the Taiwan Straits. Various opportunities including maritime cooperation are being considered, and the establishment of the Fujian Free Trade Zone demonstrates strong government support for B&R-related developments.

Industrial upgrading and cooperation will help to reduce overcapacity.

In regions with excess production capacity, industrial upgrading and international capacity cooperation will likely be priorities. For example, Shaanxi province in northwestern China is traditionally rich in energy resources and has suffered in the current economic slowdown and low energy prices. Hence, while it will apply its expertise to develop the energy sector in China generally, it also wants to improve its own industrial structure by vertically extending its production chain to resources refinement.[34]

International capacity cooperation is a cornerstone of B&R ...

Strengthening cooperation in international production through sharing of knowledge, capital and human resources is a key part of B&R. Cross-border enterprises could tap into each other's home markets and collaborate to expand value by better addressing mismatches in aggregate supply and demand. For example Henan, an important agricultural centre in China, has recently invested in a production, processing, trading and logistics value chain project with Tajikistan for cotton, vegetables and livestock.[35] Furthermore, international cooperation also spurs the development of intellectual property rights (IPR) protection as more products with local IPR are exported.[36]

[34] *Coal companies leverage the One Belt One Road Initiative to embrace era 3.0,* One Belt One Road Economic and Technology Cooperation Center, 15 May 2015, http://edailu.cn/industry/detail/id/1586.html

[35] "China's Henan Province Teams up with Tajikistan to Build Agricultural Industrial Park to Endorse the "One Belt, One Road" Initiative", *China Go Abroad* (from State Council Press Office), 22 September 2015, http://www.chinagoabroad.com/en/article/china-s-henan-province-teams-up-with-tajikistan-to-build-agricultural-industrial-park-to-endorse-the-one-belt-one-road-initiative

[36] "Shaanxi strengthens intellectual property protection to support One Belt One Road strategy", *China News*, 29 April 2016, http://finance.huanqiu.com/br/province/2016-04/8836397.html

… and cultural exchange programs are also planned.

Cultural, tourism, science and technology exchanges are a manifestation of the "people-to-people" connectivity, one of the important "five connectivities" in *Visions and Actions*.[37] Many of China's provinces along the Belt and Road have long served as gateways to culturally or ethnically proximate markets overseas, and the cultural and tourism industries in these regions could benefit significantly from B&R. For example, Gansu will promote protection of cultural heritage, leveraging its archeological expertise in frescos and ancient ruins. At the same time, Shaanxi is committed to building a trading base for cultural products while Guangdong is busy engaging B&R countries in tourism cooperation and the promotion of silk road-themed tourism projects.[38]

B&R projects already planned

More than 700 B&R construction projects have already been announced …

A list of B&R projects in both China and other countries has already been established, and in some cases construction has begun. A count at the end of July 2016 indicated a pipeline more than 700 projects, all with Chinese involvement (investors and/or contractors). Of those, the combined value in 590 projects for which numbers are available is USD 1.2 trillion (see Table 3).

… of which 74% are infrastructure projects.

The projects span four categories: infrastructure, agriculture, cultural exchange & tourism, and others. The majority – 74% of the 700 – are infrastructure construction projects, and account for 86% of the total value of all the projects. Agriculture and cultural exchange & tourism together account for 10% of the projects and 4% of their total value. The "others" category includes commercial and private-sector activities.

Table 3
B&R projects with China's involvement, planned up to July 2016

		Aggregate project value (USD bn)				
	Types of project	China	Overseas	Total	Number of projects with published values	Number of projects without published values
Infrastructure	Transportation	619	95	714	277	44
	Telecommunications	3	0	3	2	1
	Water and sanitation	2	2	3	9	1
	Power and resources	77	96	173	91	25
	Other infrastructure	88	50	138	56	12
Agriculture	Agriculture, forestry, animal husbandry and fisheries	14	2	17	21	1
Cultural exchange, tourism	Cultural exchange, tourism	31	6	37	34	1
Other	Capacity cooperation*	11	10	20	29	3
	Industrial parks	40	14	54	42	19
	Commercial buildings	29	16	45	29	7
Total		**913**	**292**	**1 205**	**590**	**114**

Note: Numbers for "China" represent values for projects located in China, and numbers for "Overseas" are for those project outside of China. If a project spans China and other countries (eg, bridges and railroads across borders), an estimated portion is applied to the column "China" and the rest to "Overseas".
*Includes projects to promote cooperation in use of industrial production capacity.
Source: *Visions and Actions*; BHI.com.cn; provincial B&R implementation plans, if available; State Council Information Office of PRC; provincial government websites; Zhikun Education; Xinhua News; Jingchu News; iFeng News; Sina News; Swiss Re Economic Research & Consulting.

[37] The "five connectivities" are the five major goals stated in *Visions and Actions*: policy coordination, facilities connectivity, unimpeded trade, financial integration and people-to-people bonding.
[38] *Cultural content around "One Belt One Road" embodiment*, State Council Information Office of the PRC, 25 August 2015, http://www.scio.gov.cn/ztk/wh/slxy/31200/Document/1445975/1445975.htm

Total investment in B&R construction activities could reach USD 6.4 trillion by 2030.

Future B&R projects

China has the financial resources to scale up its involvement in B&R projects in the coming years. It is estimated that B&R will bring additional investment of up to USD 5.2 trillion in construction and other activities in the period August 2016 to 2030. Together with the USD 1.2 trillion of already-planned projects, total investment in 2015 to 2030 will be an estimated USD 6.4 trillion.

Table 4
Additional B&R projects with Chinese involvement, up to 2030

		Aggregate project value (USD bn)		
	Type of project	**China**	**Overseas**	**Total**
Infrastructure	Transportation	30	942	972
	Telecommunication	200	369	569
	Water and sanitation	239	434	672
	Power and resources	585	1 105	1 690
	Other infrastructure	171	420	592
Agriculture	Agriculture, forestry, animal husbandry and fisheries	17	55	73
Cultural exchange, tourism	Cultural exchange, tourism	38	119	157
Other	Capacity cooperation	28	60	88
	Industrial parks	61	171	232
	Commercial building	56	138	194
Total		**1 426**	**3 813**	**5 239**

Source: Swiss Re Economic Research & Consulting.

China is actively involved in overseas B&R projects.

Chinese involvement in B&R construction projects in other countries can come in two forms – as investor and/or contractor.[39] When taking part in foreign ventures, Chinese contractors are involved in the purchase of construction insurance. In B&R projects, the Chinese parties will also be major (often the main) investors, and will hence play an important role to in determining the insurance requirements for both the construction and operational phases of a project.

B&R-related trade between China and other countries

The program will boost trade between China and the other participating countries.

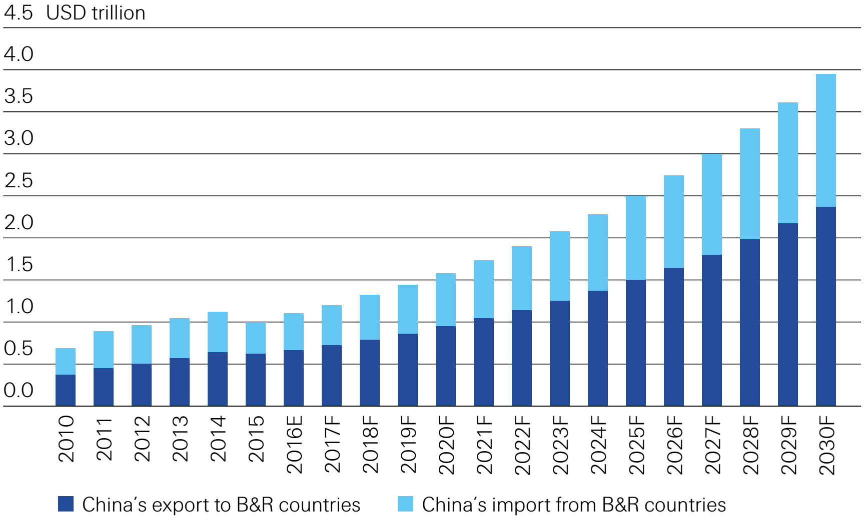
Trade volumes between China and B&R countries have increased rapidly, by a CAGR of 19.3% from USD 84 billion in 2001 to USD 998 billion in 2015. The share of China's total exports to B&R countries nearly doubled from 14.5% in 2011 to 26.4% in 2015. In the latter year, trade volumes with Southeast Asian nations accounted for 46.8% of the total trade with B&R countries, benefitting from improving bilateral relations and the establishment of the ASEAN–China Free Trade Area (ACFTA).

China's trade with other B&R markets is projected to reach almost USD 4 trillion by 2030.

The improvement in infrastructure as a result of B&R, including transport and logistic centres, will further boost trade. In March 2015, President Xi said China targets total trade volumes with other B&R countries of USD 2.5 trillion by 2025,[40] implying a CAGR of almost 10%. Extrapolating this growth assumption to 2030 implies that total trade could reach almost USD 4 trillion, around four times the current amount.[41] This is an opportunity for insurers, with a concomitant increase in demand for trade credit and general cargo coverage.

[39] This is in line with China's Ministry of Commerce's quantification of B&R projects. See *Economic and trade cooperation with B&R countries 2015*, Ministry of Commerce of the People's Republic of China, Department of Outward Investment and Economic Cooperation, http://hzs.mofcom.gov.cn/article/date/201601/20160101239881.shtml.
[40] "B&R ten-year plan – annual trade to reach USD 2.5 trillion", *www.yicai.com*, 28 March 2015, http://www.yicai.com/news/4591913.html
[41] Please see Appendix for detail on assumptions and estimations.

Figure 5
Trade between China and other B&R countries, 2010–2030F



E = estimates, F = forecasts.
Source: Ministry of Commerce, Swiss Re Economic Research & Consulting.

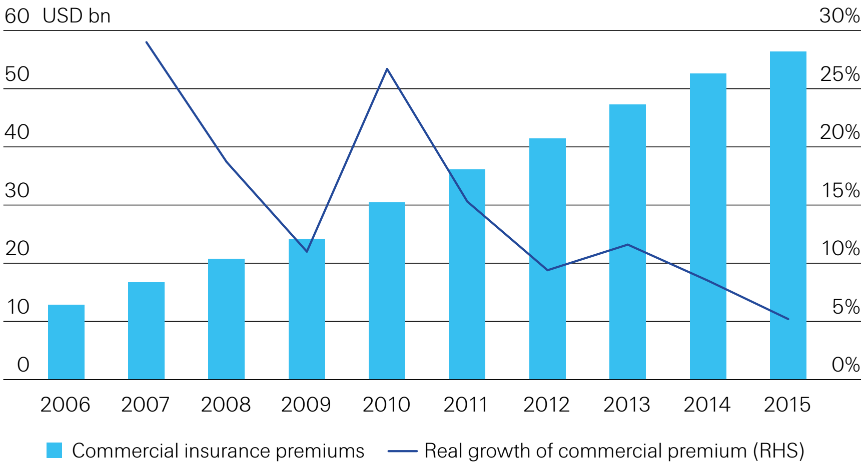
Impact on China's commercial insurance market

Overview of China's commercial insurance market

Commercial insurance premiums in China have grown rapidly.

China's insurance industry, in both personal and commercial lines, has developed rapidly over the past decade. Commercial insurance[42] premiums increased by a CAGR of 17.9% to USD 56.4 billion over the 10 years to 2015, which is about 42% of total non-life premiums in China, supported by strong growth in international trade, government spending on infrastructure, improved regulation and rising risk awareness. China is now the second largest commercial insurance market in the world,[43] although the recent economic slowdown has weighed on premium growth in this segment (see Figure 6).

Figure 6
Commercial insurance premiums in China, 2006–2015



Source: Annual Report of China's Insurance Market 2016, Swiss Re Economic Research & Consulting.

Chinese insurers have been providing more cover to parties involved in business projects overseas.

Over the years, insurers in China have been providing more risk protection to participants in the expansion of Chinese business and trade interests overseas. B&R will likely further boost demand for commercial insurance. Engineering and liability insurance cover losses caused by accidents, natural disasters or professional negligence in the construction phase of projects, and by machinery and equipment breakdowns in the operational phase. Marine, transport, export credit and product liability are the key lines of business for international trade activities.

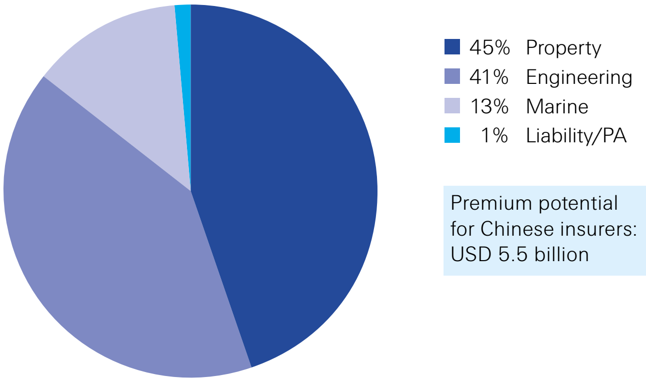
Impact of B&R on China's commercial insurance sector

B&R will increase the opportunities for commercial insurers.

The premium impact: engineering, property, marine and liability insurance
B&R is expected to trigger a new wave of construction activities and trade liberalisation, driving insurance premium growth both in China and abroad. Based on the average penetration rates[44] and insurance pricing for each line of business, the B&R projects already announced could generate an estimated USD 7 billion in commercial insurance premiums. Up to USD 5.5 billion of those could be business for Chinese insurers. Property, engineering and marine insurance stand to benefit most (see Figure 7). Demand for one-off engineering and marine insurance will come during the construction phase of projects, followed by demand for ongoing property cover once projects are up and running.

[42] Commercial lines include motor, enterprise property, liability, guarantee, credit, freight transport, engineering, ship and special risk.
[43] China ranked the third in commercial insurance market in *sigma* 5/2012: Insuring ever-evolving risks.
[44] Here the penetration rate refers to sums insured purchased as a percentage of total project value, which is also an indicator of the insurance awareness of enterprises involved in B&R projects.

Figure 7
Commercial insurance premium potential for Chinese insurers from already-planned B&R projects, by business line

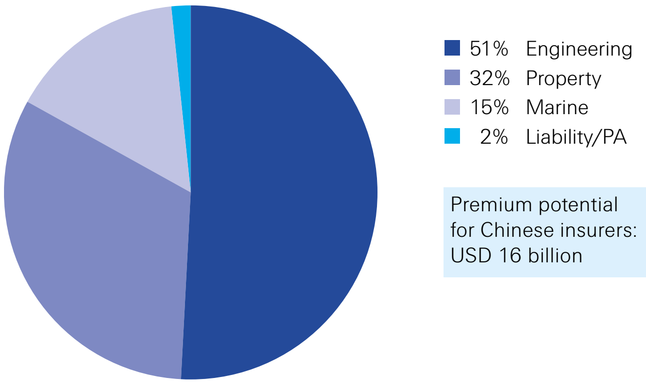


Note: Construction-related marine insurance includes project cargo and cover for delayed start-up. Liability/Personal Accident (PA) includes single project professional indemnity, product liability and employer liability/PA.
Source: Swiss Re Economic Research & Consulting.

Chinese insurers are set to gain USD 21.5 billion in additional premiums in 2015–2030 as a result of B&R.

Beyond the already-planned projects, around another USD 27 billion in commercial insurance premiums could be generated by B&R projects that may be forthcoming in the years to 2030. Of that, up to USD 16 billion could go to Chinese insurers (see Figure 8). Total premium potential from construction activities in B&R countries in the years 2015–2030 could thus be USD 34 billion, of which an estimated USD 21.5 billion could be booked to insurers in China.

Figure 8
Commercial insurance premium potential for Chinese insurers from other B&R projects up to 2030, by business line



Source: Swiss Re Economic Research & Consulting.

B&R-related trade could generate USD 1.5 billion in new premiums for China's trade credit and marine insurers.

Trade-related premium impact
Additionally, the increased trade resulting from B&R, including trade liberalisation and customs facilitation, could yield an estimated USD 1.5-billion premium potential for Chinese insurers up to 2030. Around USD 600 million would likely come from trade credit business, and the rest from general cargo (USD 900 million, not included in the marine insurance aggregates in Figures 7 and 8).

B&R will drive 3.8% growth in total commercial premiums for Chinese insurers between 2015–2030.

Lines of business impacted

Table 5 details the estimated premiums generated by B&R across different lines of business. Based on these projections, the Initiative will boost overall China's commercial insurance premiums (engineering, property, marine, liability/PA and trade-related) by USD 23 billion, or 3.8%, in the years 2015 to 2030. The estimates are influenced by two key variables. One is insurance penetration rates,[45] which vary across different lines of business. For instance, while project owners purchase 100% engineering cover for the construction phase, only about one-tenth buy single project professional indemnity (SPPI) liability cover to insure against the risk of professional negligence by service providers. The second key variable is premium rates, which vary according to line of business and the characteristics of individual projects. For example, premium rates for general cargo insurance depend on the type of products being shipped, the destination and transportation vehicle.

Table 5
Commercial premiums for China's insurers generated by B&R in 2015-2030, by line of business

Commercial insurance lines	Premiums of B&R projects planned so far (USD bn)	B&R premiums, August 2016 2030 (USD bn)	B&R trade-related premiums, 2015–2030 (USD, bn)	Total B&R premiums, 2015–030 (USD bn)
Construction-related				
Engineering	2.2	8.2	–	10.4
Property	2.5	5.1	–	7.6
Marine*	0.7	2.5	–	3.2
Liability/PA**	0.1	0.2	–	0.3
Sub-total	**5.5**	**16.0**	–	**21.5**
Trade-related				
Marine (general cargo)	–	–	0.9	0.9
Trade credit	–	–	0.6	0.6
Sub-total	–	–	**1.5**	**1.5**
Total	**5.5**	**16.0**	**1.5**	**23.0**

Note: *Construction-related marine insurance includes project cargo and cover for delayed start-up.
**Liability/PA includes single project professional indemnity, product liability and employer liability/PA.
Personal accident can be purchased in lieu of employer's liability, and vice versa.
Source: Swiss Re Economic Research & Consulting.

There will be an estimated USD 10.4 billion increase in engineering insurance premiums, …

Engineering insurance

Engineering insurance covers a wide range of risks inherent in construction projects, including delays, design error, faulty material, faulty workmanship, and breakdown of plants and machinery. Some engineering policies contain a third-party liability clause (TPL, part of Commercial General Liability, or CGL), to cover liability for personal injury to a third party, or damage to third-party property, as a result of an incident in the insured project. Growth in engineering insurance premiums in China eased to 1.5% in 2015 from a peak of 37.4% in 2010, alongside a continuous slowdown in fixed asset investment. B&R-driven demand could yield additional premiums of more than USD 10.4 billion for Chinese insurers in 2015–2030.

… a USD 7.6 billion-gain in property premiums, …

Property insurance

Property insurance provides cover for physical damage and consequential financial losses. The most popular form is All-Risk insurance, which covers natural perils and accidents other than those explicitly excluded from a contract. Covers normally not included are protection against terrorism, cyber risks and contingent business interruption, although there has been growing demand for these covers of late. B&R is likely to boost demand for property insurance. Moreover, the relocation of manufacturing plants to B&R countries, mostly emerging markets, has made risk management more complex, further driving demand for property risk protection.

[45] Penetration rate here refers to sum of insurance purchased as a percentage of total project value, which is also an indicator of insurance awareness on the part of enterprises involved in B&R projects.

Overall, demand for property cover as a result of B&R is estimated to amount to USD 7.6 billion in premiums for insurers in China in the years to 2030.

... USD 4.1 billion in marine cover, ...

Marine insurance

Marine insurance covers the loss or damage to ships, cargo and associated third-party liabilities. It also includes the property and liability risks of container terminals and ports. Project cargo insurance covers risks associated with the transportation of large, heavy, high-value or critical pieces of equipment for a particular project. General cargo insurance, meanwhile, protects goods in transit and sometimes also stored at terminal warehouses, against the risks of theft and damage from fire, lightning, flooding and sprinklers. In addition, delayed start-up (DSU) insurance provides coverage for risk of loss in income and profit (eg, extra interest incurred on loans) emanating from late or non-delivery of critical components. In total, additional marine premiums for Chinese insurers from B&R projects could reach up to USD 4.1 billion over 2015 to 2030.

... and a USD 300 million-rise in liability insurance premiums for Chinese insurers in 2015–2030 as a result of B&R.

Liability and personal accident insurance

Liability insurance provides protection against the legal liability associated with personal injury, death, property damage or financial loss. As countries in B&R regions are mostly emerging markets with a mix of cultural and judicial systems, there is likely to be growing demand for liability insurance from project owners, operators, vendors and other stakeholders. However, penetration is currently still low and the overall business opportunity to 2030 is estimated to be just USD 300 million. The key covers likely to benefit from the B&R projects are SPPI, product liability insurance and employer's liability insurance. Sometimes personal accident insurance is purchased in lieu of employer's liability insurance.

Trade credit insurance provides coverage for exporters against political risk.

Trade credit insurance

Trade (export) credit insurance provides risk cover to sellers of goods or services in the event that a buyer is unable to fulfil its obligations. War damage and inability to operate due to war, restrictions on transfer and conversion, and expropriation have traditionally been covered by standard export credit (EC) insurance policies, both for short-term (less than 1 year) and mid- to long-term business. Higher exports typically lead to an increase in trade credit insurance premiums. History suggests that a 1% increase in Chinese exports is accompanied by a 0.32% increase in trade credit premiums.[46] B&R is expected to boost trade flows and, consequently, premiums for China's trade credit insurers by an estimated USD 600 million.

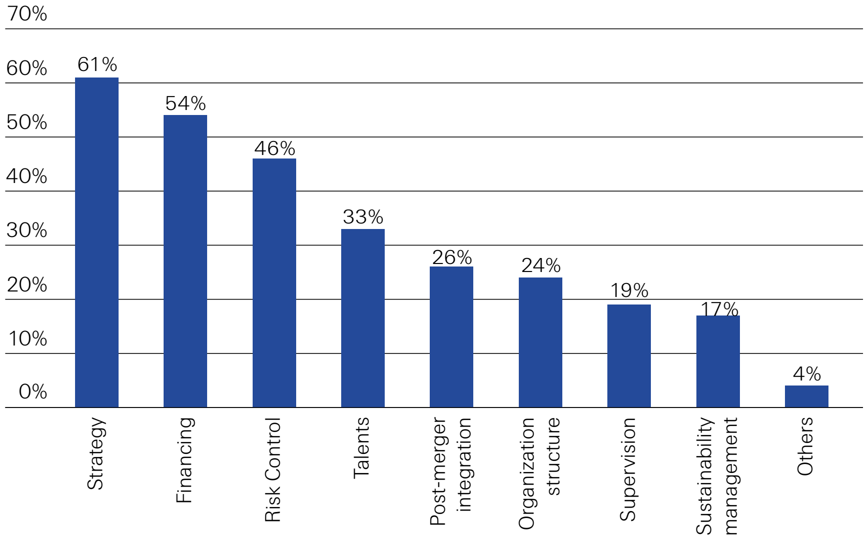
[46] *sigma* 3/2016 – World insurance in 2015, Steady growth amid regional disparities, Swiss Re.

Supporting B&R with effective risk transfer

Firms have to deal with cultural differences and operational challenges when they enter markets.

Chinese firms participating in B&R face cultural differences and operational challenges in the markets they enter. Furthermore, there are ownership restrictions on foreign participants in many B&R markets and sometimes also political instability, which can be particularly relevant in the case of long-gestation period infrastructure projects. According to a recent survey of Chinese state-owned enterprises (SOEs), the top three challenges for firms involved in B&R projects are having a clear, long-term strategy for overseas investment and expansion (61% of respondents); financing support (54%); and the risk control environment in host countries (46%).

Figure 9
Key challenges perceived by SOEs participating in B&R



Source: "'One Belt, One Road', The internationalization of China's SOEs", *Deloitte Perspectives*, Vol 5, 2016.

New countries, new risks[47]

B&R projects present various risks.

Given the diverse political, economic and regulatory environments of the B&R countries, the journey to establish and strengthen connectivity between China and the other participating nations presents significant risks for the parties involved.

Political risks

Political risk could be a main challenge …

Infrastructure projects are likely to face political obstacles through their life cycle. These include cancellations, permit issues and social opposition during the planning and construction phases; expropriation and contract repudiation risks during the operating phase; and regulatory, transfer and convertibility, tax, and judicial risks through the entire life cycle of a project. This is because there is political instability in many B&R countries, with weak governance and/or frequent changes in the ruling regimes which can impede host government decision-making. Another emerging risk is religious extremism and terrorism, especially in Eurasia. Also, territorial disputes and Russia's growing wariness of China's influence in central Asia could interfere with closer cooperation among nations in the region. Sanctions imposed by the US and EU on Russia remain in place and could have long-lasting impact on Russia's future growth as well.[48] Russia is one of the nations to be linked with China and Mongolia on the New Eurasia Land Bridge Economic Corridor. Developments in Russia could have implications for the success (or otherwise) of such proposed cross-border projects and also cooperation in areas such as energy and mining.[49]

47 Swiss Re Economic Research & Consulting will publish a second paper on B&R to elaborate on the risk landscape in B&R locations outside of China.
48 China Going Global Investment Index, *Economist Intelligence Unit*, 2015.
49 J. Feige, "China's Road to Closer Ties With Russia", *The Diplomat*, 3 August 2016, http://thediplomat.com/2016/08/chinas-road-to-closer-ties-with-russia/

... while economic risks include vulnerability to external shocks.

Economic risk
Economic risk resulting from changes in macro conditions is one of the major challenges facing B&R projects. Many of the B&R countries are emerging markets[50] and are vulnerable to external shocks, including weakening global demand, and currency and commodity price volatility. Since the the US Federal Reserve tightened monetary policy in late 2015, many B&R currencies have come under pressure. In some countries non-performing loans have ticked higher. High inflation rates and efforts to defend currencies have led to pro-cyclical tightening of monetary policy stances (eg, in Azerbaijan, Kazakhstan and Russia). This highlights the vulnerability of many Chinese companies taking part in B&R projects to the economic realities of the host countries in which they operate.

With respect to regulatory regimes, legislation on the environment (or lack of enforcement thereof) is a key risk.

Regulatory risk
B&R countries have different legal and regulatory environments, and these are often not well-established at all. There is increasing anxiety among businesses involved in B&R projects about the level of regulation at not just the domestic, but also the regional and international levels. For example, energy cooperation is a key goal of B&R. At the same time, concerns about the environment are becoming increasingly prominent. Although many countries have legislation to address environmental concerns, to date enforcement of such laws has not always been robust. This can put natural resources-related projects under international scrutiny, which can involve legal costs for, and reputational damage to, the parties involved.

And long-term infrastructure projects are susceptible to operational risks.

Operational risk
Operational risk, that is problems resulting from inadequate or failed internal processes, people or systems, is fundamental to most economic activity. These risks are very relevant in large-scale infrastructure projects which have long operating cycles and high uncertainty in profitability. A lack of knowledge about economic development and the regulatory environment in a foreign country is another source of operational risk. So too is the possibility of business interruption in emerging economies with poor infrastructure and low risk management capability, as is the case in many B&R countries.

Table 6
Political and non-political risks facing Chinese enterprises taking part in B&R

Type of risk	Description
Political risk	Domestic political instability; geopolitical tensions; emerging risks of religious extremism and terrorist threats, etc.
Economic risk	Vulnerability to external shocks; under-developed domestic financial and capital market, infrastructure bottlenecks, etc.
Regulatory risk	Underdeveloped juridical and regulatory system, red-tape, lack of regulatory clarity etc.
Operational risk	Risks resulting from inadequate or failed internal processes, people or systems, including business interruption risk.

Source: Swiss Re Economic Research & Consulting.

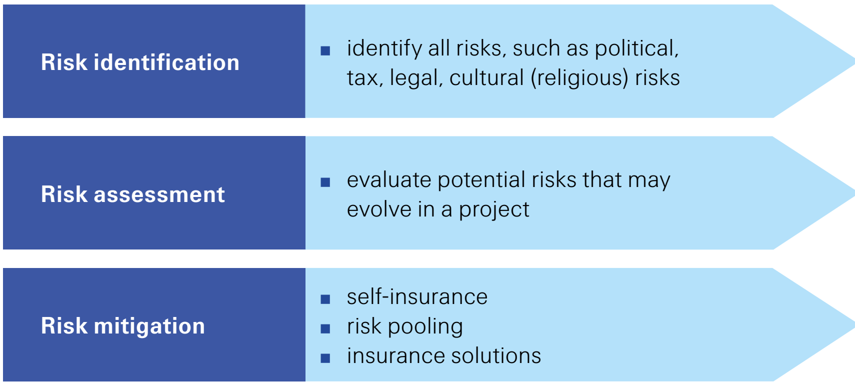
[50] The 65 countries referenced in this report as being B&R countries are as according to analysis by the Chinese Academy of Sciences (please see Appendix). Of these, 47 are middle-income economies according to World Bank classification.

Integrated risk management

An integrated risk management solution is needed.

Chinese firms investing in B&R countries should adopt an integrated risk management approach, including identifying the various risks pertinent to their particular project. They should also put in place mitigating measures, including for instance, support from the insurance sector.

Figure 10
Risk management for enterprises involved in B&R projects



Source: Swiss Re Economic Research & Consulting.

Chinese insurers in B&R markets

Chinese insurers supporting clients in B&R markets need to understand the risk landscape of a host country.

Chinese insurers need to understand the risks present in the markets in which they provide risk management solutions to clients. While they may be well-informed of underwriting challenges at home, some insurers are less experienced in handling overseas risks. A key question for an insurer considering entering a new market is the feasibility of going in alone, in partnership with a local carrier, or acquiring an existing local firm. The choice will be dependent on host country regulations on foreign ownership terms.

Partnership with local insurers or brokers can facilitate smooth entry into new markets.

Partnership with local insurers or tie-ups with brokers in the market concerned can be used to establish presence in B&R markets. This option affords the foreign entity a strong local brand name, market expertise, and local skills to manage location-specific obstacles more effectively. Some Chinese insurers are engaging with local partners for these reasons, and to establish first-mover advantage. Meanwhile, insurance brokers are leveraging global or regional partnerships to provide insurance and risk management services for "going out" Chinese enterprises and insurers. For the B&R countries, the participation of Chinese and other nations' insurers and brokers increases the underwriting capacity in their market, and can also help upgrade the level of technical expertise available.

Product strategy

Many Chinese business investing overseas are underinsured …

The key ingredients of insurance solutions for projects in B&R markets – pricing, policy wording, contract commitment and claims services – should follow international best practices while taking into consideration local requirements. Insurers need to form close relationships with their clients to understand the latters' needs in B&R markets, and tailor risk protection solutions accordingly. Many Chinese firms operating overseas are underinsured. For example, there are cases where enterprises have basic construction insurance cover, but the policy excludes natural perils such as floods and earthquakes. In other cases, the policy covers natural perils but with limits depending on the degree of insurability.

… and buy different lines of commercial insurance cover in separate modules.

Often different lines of business in commercial insurance are purchased independently. The purchase of liability insurance is also often separated into several sub-lines such as employer's liability, professional liability, and product liability. As new risks emerge, these are often purchased as add-ons to existing covers, or separately. In both cases, the policies have their own specific wordings, limits and retentions.

What they need, however, is tailored and holistic insurance solutions.

However, large corporations want integrated solutions, not modular cover. The focus of insurance buyers is more on protection of risk, not line of business. As a result, the use of "non-traditional" or customised insurance to offer integrated risk solutions is becoming more common (see below on ONE-Construction solution). This can provide more efficient risk protection for enterprises, and reduce the cost of insurance. Increasingly, insurance is integrated into corporates' long-term strategy and growth plans to deal with challenging circumstances, such as mergers and acquisitions, changes in regulatory regimes, or market dislocations.[51]

Figure 11
Moving from tactical to strategic insurance risk management

Traditional insurance solution

- Minimise price of risk transfer
- Off-the-shelf products
- Broker-driven placements
- Maximise coverage/ minimise exclusion

Customized/strategic insurance solution

- Optimise total cost of insurable risk
- Price stability/budgeting certainty
- Address tail risk
- Portfolio efficiency
- Tailor innovative solutions

Source: Swiss Re Corporate Solutions, Swiss Re Economic Research & Consulting.

Some Chinese insurers are developing "all-in-one" insurance to support clients with operations in foreign locations.

Chinese firms setting up operations overseas often lack the risk management skills needed to manage risks in a foreign location. In response, some Chinese insurers are taking an "all-in-one" approach to offer comprehensive and price competitive risk protection products. Simple, affordable and one-stop solutions of this nature can be very useful in less developed markets in particular. In addition to offering risk protection services at low prices to consumers previously unable to afford coverage, they help build broader understanding of the benefits of insurance.

Swiss Re Corporate Solutions has developed its ONE-Construction product along these lines.

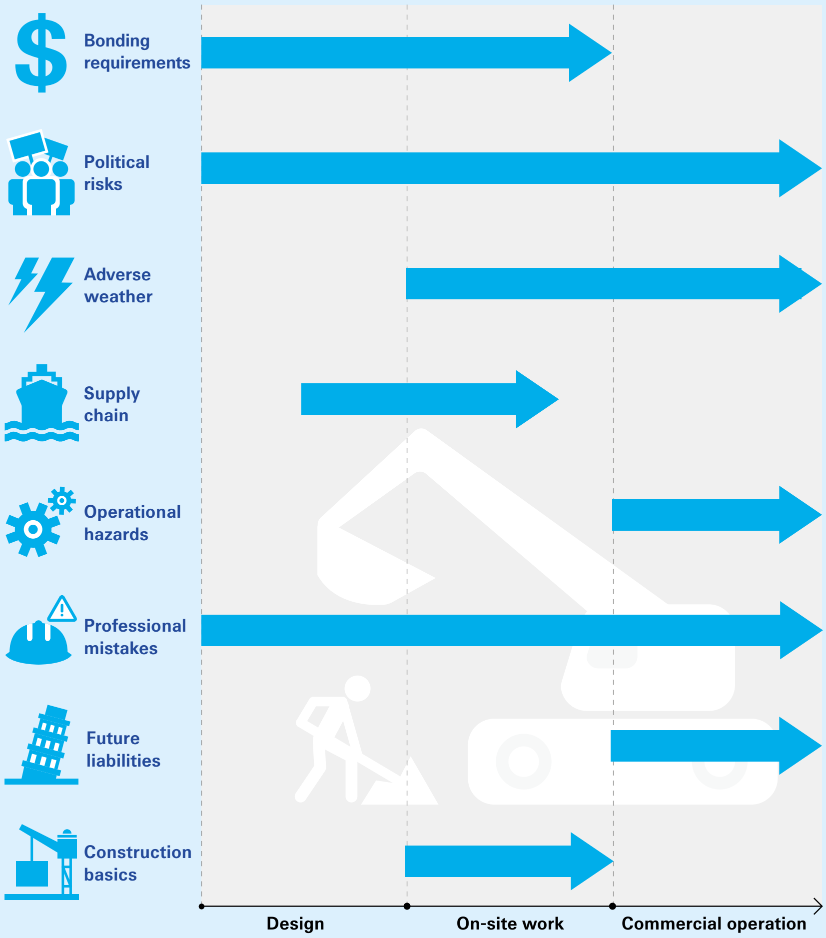
ONE-Construction solution

Of late, integrated construction insurance covers are becoming more popular. For example, Swiss Re Corporate Solutions offers its "ONE-Construction" solution for developing markets (see Figure 12). This is a holistic turn-key solution to cover the different risks that clients face. The options include:

- a full range of engineering & construction insurance products, such as Single Project, Floaters, Delayed Start-Up (DSU) covers.
- Engineering & construction covers that can be bundled with other commercial insurance lines. Initial operations, SPPI and marine covers are usually required in the case of construction projects in foreign countries.
- Options for non-traditional insurance covers, including parametric and weather insurance, and structured solutions.[52]

[51] See *sigma* 5/2016 – Strategic reinsurance and insurance: the increasing trend of customised solutions, Swiss Re.
[52] For an introduction to structured solutions, Ibid.

Figure 12
ONE construction – a holistic approach to insurance



Source: Swiss Re Corporate Solutions, Swiss Re Economic Research & Consulting.

The energy industry is one of the most weather-sensitive sectors, and weather index insurance solutions help electric power producers hedge their risks

Another possible insurance solution for agricultural and industrial projects in B&R markets is weather-index covers, which mitigate the risks posed by uncertainty in cash flows and earnings due to non-catastrophic weather events like high/low temperatures, levels of rainfall, snowfall, solar radiation and/or wind speed. The energy industry is one of the more weather-sensitive sectors. Electric power producing facilities have heating and cooling requirements, and these are impacted by changes in weather conditions. Weather index insurance provides powerful tools to energy companies to shift or hedge risks.

In many countries, the government offers re/insurance where risks extend beyond the means of the private sector.

Government support

In many countries, the public sector acts as insurer for certain risks as a supplement to private schemes. Government backstop programs can complement private sector solutions which have capacity limitations, as in cases where risk assessment is particularly challenging, and/or where the magnitude of a potential loss exceeds capacity of private sectors (eg, terrorism and very large natural catastrophe events).

For example terrorism risk insurance often requires government support, but the support is often lacking.

Many countries facing terror risk have backstop programmes, including in Europe (Austria, Belgium, Denmark, France, Germany, the Netherlands, Spain, the UK) and elsewhere (Australia, India, Israel, Russia, Sri Lanka, South Africa). Some developing countries, including in B&R regions, face substantial terrorism risk but do not have governance systems in place. In this situation, public sector involvement should focus on expanding the availability of insurance schemes, with the ultimate aim of establishing a private market.

Conclusion

B&R is a long-term strategic program.

The B&R Initiative spans six international economic corridors and one maritime silk Road, connecting 65 countries that account for 62% of world's population and 30% of global GDP. Chinese companies investing in B&R countries in the coming years will face a wide range of risks and challenges, and also opportunities. Chinese insurers likewise stand to gain. It is estimated that already-planned B&R projects could generate commercial insurance premiums of around USD 5.5 billion for China's insurers. And over the period to 2030, an estimated USD 16 billion in additional premiums could come from projects that may be forthcoming in the coming years. Most of the demand will be for engineering and property insurance, followed by marine, liability and trade credit cover. The trade activity generated by B&R will yield an estimated USD 1.5 billion in premiums for insurers in China.

It presents major opportunities for insurers in China.

Even though many of the B&R construction activities will be in foreign countries, the insurance-purchasing decisions will often be made in China, as investors and decision-making bodies are located there. There is currently ample capacity in the Chinese market, and insurers will likely leverage their extensive domestic and international networks to harvest the opportunities arising from B&R.

Insurers will need to understand their clients' needs to realise the potential benefits offered by B&R.

The B&R markets can benefit from increased participation of Chinese insurers, both in terms of underwriting capacity and technical expertise. Generally, partnership with insurers or tie-ups with influential brokers in a host country can be useful to establish a long-term presence in the B&R markets. This option gives the foreign entity a strong local brand name, market expertise, and local skills to better manage location-specific obstacles. Insurers also need to build close relationships with their clients to understand the latter's needs and design tailor-made insurance. The use of customised solutions is becoming increasingly important as clients seek more holistic risk protection for their overseas investment and trade activities.

Appendix

Which are the B&R regions?

Research scope
In the *Visions and Actions* blueprint report, B&R countries generally refer to the countries along the Belt and Road, with no precise definition. This report assumes the B&R regions as in Table 7.

Table 7
B&R regions

Region	Population	Nominal GDP	Premiums of commercial line
	2015, mn	2015, USD bn	2015, USD bn
Asia*	4253	19768	44
Eastern Europe	400	3222	6
Africa	962	1,536	3
B&R regions	**5616**	**24526**	**53**
Share of B&R regions as % of world total	77.4%	33.7%	10.9%

Note: *Asia here excludes Hong Kong, Taiwan, Japan and Korea.
Source: Swiss Re Economic Research & Consulting.

And the B&R countries?

There is no official list of B&R countries, and the number of nations involved grows alongside implementation of the initiative itself. As of July 2016, Chinese firms had invested in 60 B&R countries, up from 49 in October 2015.[53] Alternatively, the Chinese Academy of Sciences (CAS) say the number of countries taking part in the B&R Initiative stands at 65. Those countries show in Table 8.[54]

Table 8
B&R countries

Region	Country	Population	GDP	Bilateral trade with China	China's ODI in B&R market
		2014	2014, USD mn	2015, USD mn	2014,USD mn
East Asia	China**	1364270000	10354832		
Mongolia & Russia	Mongolia**	2909871	12016	5326	503
	Russia**	143819569	1860598	67981	634
South Asia	Afghanistan*	31627506	20038	376	28
	Bangladesh**	159077513	172887	14710	25
	Bhutan**	765008	1959	10	–
	India**	1295291543	2048517	71657	317
	Maldives**	401000	3062	173	–
	Nepal*	28174724	19770	853	45
	Pakistan**	185044286	243632	18959	1,014
	Sri Lanka**	20771000	78824	4567	85
Southeast Asia	Brunei**	417394	17105	1509	–3
	Laos**	6689300	11997	2586	1027
	Philippines**	99138690	284777	45716	225
	Timor-Leste**	1212107	1417	107	10
	Cambodia**	15,328,136	16778	4436	438
	Malaysia**	29901997	338104	97421	521
	Singapore**	5469724	307860	80738	2814
	Vietnam**	90728900	186205	90338	333
	Indonesia**	254454778	888538	54193	1272
	Myanmar**	53437159	64330	14681	–
	Thailand**	67725979	404824	75525	839

[53] China's Ministry of Commerce.
[54] This report uses the CAS list of B&R countries in the absence of an official list from the Chinese government. CAS was one of main research institutes involved in the setting up of B&R for the government. See G. Peiping, S. Zhouying, L. Weidong, Commodity structure of trade between China and countries in the Belt and Road Initiative area, CAS, May 2015, p572; and Z. Jialing, L. Chunla, Y. Guoqing, T. Zhipeng, Spatial patterns and economic effects of China's trade with countries along the Belt and Road, May 2015, p600.

Appendix

Region	Country	Population	GDP	Bilateral trade with China	China's ODI in B&R market
		2014	2014, USD mn	2015, USD mn	2014,USD mn
Central Asia	Kazakhstan**	17 289 224	217 872	14 268	–40
	Kyrgyzstan**	5 835 500	7404	4341	108
	Tajikistan**	8 295 840	9242	1849	107
	Turkmenistan**	5 307 188	47 932	8645	195
	Uzbekistan**	30 757 700	62 644	3504	181
Western Asia & Middle East	Armenia**	3 006 154	11 644	333	–
	Azerbaijan**	9 535 079	75 198	666	17
	Georgia**	3 727 000	16 530	813	224
	Iran**	78 143 644	425 326	33 849	593
	Bahrain***	1 361 930	33 851	1 126	–
	Egypt**	89 579 670	301 499	12 875	163
	Iraq**	34 812 326	223 500	20 586	83
	Israel***	8 215 700	305 675	11 430	53
	Jordan**	6 607 000	35 827	3719	7
	Kuwait***	3 753 121	163 612	11 255	162
	Lebanon**	4 546 774	45 731	2308	0
	Oman***	4 236 057	81 797	17 171	15
	Palestine	4 797 000	12 766	71	–
	Qatar***	2 172 065	210 109	6874	36
	Saudi Arabia***	30 886 545	753 832	51 838	184
	Syrian Arab Republic**	22 157 800	26 459	1028	10
	Turkey**	75 932 348	798 429	21 589	105
	United Arab Emirates***	9 086 139	399 451	48 594	705
	Yemen**	26 183 676	37 449	2324	6
Central and Eastern Europe	Albania**	2 894 475	13 212	559	–
	Belarus**	9 470 000	76 139	1758	64
	Bosnia & Herzegovina**	3 817 554	18 521	115	–
	Bulgaria**	7 223 938	56 717	1800	20
	Croatia***	4 238 389	57 113	1098	4
	Czech Republic***	10 525 347	205 270	11 012	2
	Estonia***	1 314 545	26 485	1190	–
	Hungary***	9 863 183	138 347	8071	34
	Latvia***	1 993 782	31 287	1168	–
	Lithuania***	2 932 367	48 354	1351	–
	Macedonia**	2 075 625	11 324	223	–
	Moldova**	3 556 397	7 962	121	–
	Montenegro**	621 810	4 588	159	–
	Poland***	38 011 735	544 967	17 095	44
	Romania**	19 904 360	199 044	4 486	42
	Serbia**	7 129 366	43 866	550	12
	Slovakia***	5 418 649	100 249	5 032	46
	Slovenia**	2 061 980	49 491	2 383	–
	Ukraine**	45 362 900	131 805	7 072	5
B&R region		**4 521 298 066**	**23 406 589**	**998 159**	**13 312**
World		7 264 488 769	78 037 281	4 259 914	123 120
Share of B&R region as % of world total		**62.20%**	**30.00%**	**23.43%**	**10.80%**

Note: * low-income country, **middle-income country; ***high-income country, measured by gross national income (GNI) per capita, in USD, converted from local currency using World Bank Atlas methodology.

Source: China Academy of Sciences, World Bank, Ministry of Commerce of the People's Republic of China, Swiss Re Economic Research & Consulting.

Research methodology

This section outlines the methodology used to estimate the infrastructure demand in B&R countries and related commercial insurance premium potential in the period 2015–2030. First the infrastructure investment needs and size of trade volumes between China and the B&R countries were estimated. These were cross-referenced with penetration and premium rates to arrive at an estimate of potential commercial insurance premium volumes. The end-2015 USD/CNY exchange rate of 6.5 was used throughout the analysis whenever USD values were not available.

Estimating regional infrastructure demand,

The assessment of infrastructure requirements was based on third-party sources, (see Table 9). By adjusting for the different assumptions, geographical scopes and time horizons used by those sources, the total infrastructure gap in B&R countries in the period 2015–2030 was estimated to be around USD 20 trillion.

Table 9
Various estimates on infrastructure needs

Reference	Regional focus	Methodology
ADB	32 Asian developing economies	Econometric approach based on the projected growth of key economic parameters
HSBC	11 individual Asian economies including emerging and advanced markets	Using the HSBC Asia Infrastructure Measure (AIM) against each other and the US.
Swiss Re urbanisation model	Global/Emerging markets	Swiss Re ER&C internal based on urbanisation growth

Source: HSBC Global Research, ADB Institute; Swiss Re Economic Research and Consulting

Estimating trade volumes between China and the B&R countries.

The size of China's exports to other B&R countries was estimated based on the assumption that the share of exports and imports in total trade would be in line with historical trends. Three scenarios were used to arrive at an average value:
(1) a positive scenario assuming fast growth in bilateral trade could be maintained up to 2030, but at a moderating pace;
(2) a scenario assuming China's official target for trade volumes of USD 2.5 trillion by 2025 is reached, followed by growth at the same pace up to 2030; and
(3) a pessimistic scenario assuming Chinese exports grow at the same pace as GDP.

Estimating already-announced B&R project values.

The value and duration of each of the construction projects already announced was identified from a number of sources as of July 2016,[55] and categorised into four sectors: infrastructure, agriculture, cultural exchange & tourism, and others. The values of the B&R projects planned so far were then summed to arrive at a total estimate of USD 1.2 trillion. Using estimates of China's overseas direct investments and overseas contract values in B&R countries, as well as China's demand for infrastructure as a percentage of total B&R region demand, we estimated that China will contribute USD 6.4 trillion worth of projects in the entire B&R region through 2015–2030. Using the planned B&R project database and target demand by project sectors from external studies, we also derived estimated project values by sector.

Estimating commercial insurance premium potential.

The expansion in trade and construction resulting from B&R will constitute the main source of additional commercial insurance premium opportunities. The total premium potential for Chinese insurers was estimated by applying appropriate penetration and risk premium rates. Further assumptions about fronting rates and Chinese ownership in overseas properties were also applied. The estimates assume successful implementation of the B&R projects. Given the uncertainties inherent in making long-term projections, the estimates should be considered as the upper bound of potential business opportunity.

[55] China Building Project in Plan (www.bhi.com), founded by Beijing Huaxinjie Investment Consulting, co-founded by the National Development and Reform Commission Investment Research Institute, China Engineering Consulting Association, China Construction Enterprise Management Association); proposed key projects by each provincial government.

Table 10
Key commercial insurance business lines and risk covered under B&R

B&R-related business activities	Commercial insurance in demand	Risks covered	Risk owner	Projects types involved
Construction (construction + maintenance phase)	Engineering (construction/installation project all risks insurance, machinery breakdown insurance)	Risks for loss caused by any accident or natural disaster except for exclusions (eg, engineering design, construction technology error, construction material quality defects, and mechanical damage of machinery and equipment that happens without external momentum) in the construction phase of a project, or machines and equipment in the operational phase. Some engineering insurance policies contain a third-party liability clause (TPL, part of Commercial General Liability, or CGL), which covers risks for compensation liability for the personal injury or property damage to the third party in construction sites and adjacent areas caused by an accident in or directly related to the insured project.	Project owner	All construction projects
	Marine (project cargo)	Risks for loss or damage in transit to large, heavy cargo, critical pieces of equipment of high value to the project.	Project owner	All construction projects
	Marine (Delayed Start Up, DSU)	Risks for loss of income and profit (e.g. extra interest incurred on loans) arising from late or non-delivery of critical components due to accidental occurrences in transit.	Project owner	All construction projects
	Liability (Employer Liability)/Personal Accident (PA)	Risks for cost of compensation for employees' injuries or illness caused on or offsite	Project owner	All construction projects
	Liability (Single Project Professional Indemnity, SPPI)	Risks for professional negligence claims against all professional service providers in contract (eg, architects, engineers, designers, construction supervision, qualified surveys and feasibility studies) up to a certain number of years after completion of the project	Project owner	All construction projects
	Liability (Product Liability, part of CGL)	Risks for damages or injuries resulting from defects in products used in construction projects.	Manufacturers and/or suppliers of products used in project construction	Infrastructure constructions of railway, high-speed railway, subway, power, energy and resources
Construction (operation phase)	Property	Risks for damages to property caused by incidents such as fire, theft, and weather in the operational phase of a project.	Property owner	All projects constructed
Trade	Trade credit	Risks of loss to the accounts receivables due to credit risks such as protracted default, insolvency or bankruptcy. It can include risk of non-payment by foreign buyers due to currency issues, political unrest, expropriation etc (political risk).	Exporters	
	Marine (general cargo)	Risk of loss or damage to freight from any external cause during shipping, whether by land, sea or air.	Exporters/importers/domestic trading parties	

Source: Bank of China, FP Marine Risks, AIG, LexisNexis, CCW Global, Swiss Re Corporate Solutions, Swiss Re Economic Research & Consulting.

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