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Economic Power Play: Assessing China's Trade Policies



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Executive summary

China has grown at an unprecedented pace to become a leader in global trade over the past four decades. Its rapid rise has met with mixed reactions from the rest of the world, from excited embrace of opportunity, to concern, to confrontation. China's deepening integration into the global economy has unlocked massive consumption power and brought about efficiency in global supply chains, making it an attractive market for international business and a magnet for foreign investment. Meanwhile, due in large part to China's fundamentally distinct political and economic systems, its rise has also presented new challenges to other economic powers, contributing to continuous tensions with them. This friction has intensified over the past few years amid growing protectionism and populism globally and escalating geopolitical disagreements between China and Western countries. As a consequence, China's trade policies and practices have regularly made headlines and generated heated rhetoric around the world, shaping public and business sentiment.

To cut through the noise and inform critical decision-making, The Economist Intelligence Unit, sponsored by the Charles Koch Institute, has conducted an up-to-date, evidence-based assessment of China's trade policies and practices as well as the medium-term outlook. Particular focus was placed on some of the most contentious issues, including industrial subsidies, forced technology transfer, foreign ownership restrictions, intellectual property (IP) theft and currency manipulation, among others. Through a closer examination of five select industries (agriculture, steel, semiconductors,

biopharmaceuticals and financial services), this study also showcases the broad scale and complexity of the impacts of China's trade positioning thanks to its central role in global trade today.

Key findings

China's current trade policies and practices are driven by four overarching priorities: pushing for indigenous innovation, driving self-sufficiency, enhancing national security, and market reform and opening. These priorities manifest in the mix of sustained state efforts to bolster domestic industries and the government's elevated commitment to cultivating a level playing field for foreign companies. They are likely to continue to shape China's trade positioning in the short to medium term. However, as China's relations with the US and its allies deteriorate, links between national security and economic and industrial policy will grow. As a result, the focus on national security will overshadow the likelihood of radical market reform.

The Chinese government has followed a top-down, state-driven strategy to further its competitiveness in global trade, most evident in its pursuit of high-tech ambitions, and it is unlikely to shift from this approach anytime soon. The government regards numerous high-tech areas as strategic emerging industries (SEIs) and provides support for domestic industries in various financial and non-financial forms. Some measures, such as government-backed investment funds and industrial subsidies, have continuously drawn criticism from

trading partners for distorting the market or disadvantaging foreign companies. Despite such criticism, this strategy and associated measures will continue. For example, during the escalation of trade disputes with the US, China deemphasized its Made in China 2025 blueprint targeting advanced manufacturing, while continuing to implement it on a large scale, mostly under the umbrella of SEIs.

Chinese authorities have nevertheless taken substantive steps—particularly at the legislative level—to address some key contentious issues in recent years, but to what extent these will be effectively implemented remains questionable.

Major reforms include abolishing foreign ownership limits in financial services, curbing excess capacity in steelmaking, instituting explicit prohibition of forced technology transfer in the new Foreign Investment Law (FIL), and amending major laws to strengthen IP rights protection. These steps were not simply concessions to external pressure, but rather driven by domestic interests to sustain foreign investment inflows, upgrade industrial structures and incentivize indigenous innovations. However, as inadequate enforcement has historically been a barrier to policy efficacy in China, it remains to be seen whether these reforms will deliver.

While market opening reforms—such as lifting foreign ownership restrictions—are an important step to increase market accessibility for foreign companies, licensing schemes and other regulatory barriers continue to hinder foreign entry and expansion into the Chinese market, and many areas regarded as critical to national security and the rule of the Chinese Communist Party (CCP) remain closed. For example, foreign insurers

looking to offer services in just a third of the country would need at least a decade to acquire the necessary license approvals, and a lack of transparency and delays in the approval process have been reported as a key challenge. In the financial services industry more broadly, growing regulations on cybersecurity and data transfer also pose greater operational risks and costs for foreign financial institutions, deterring market entry. In addition, although the Chinese government has continued to reduce the number of sectors where foreign investment is prohibited or limited, industries including rare earth mining, postal services and news agencies remain closed to foreign investors, and equity restrictions continue in industries such as telecommunications and air transport.

Given China's massive economic and market size, its trade policies and practices have inevitably had wide-reaching, albeit distinct, impacts on its trade partners depending on their positioning in global trade and supply chains.

As China plays catch-up to global leaders and advances its high-tech sectors, it will erode the market shares of incumbent players, beginning with lower-value segments and its own domestic market. In biopharmaceuticals, Chinese companies are seeking to challenge the market position of international drug makers by developing generic biologics. In the semiconductors industry, China has expanded its share in the global market at the expense of traditional suppliers in Europe, the US and Japan, initially in less-advanced chips due to ongoing technology gaps. Chinese expansion in these industries has raised concerns among foreign counterparts about growing risk of overcapacity. Meanwhile, China's aggressive investment in semiconductor manufacturing has also been a boon for upstream industries,

such as suppliers of specialized machinery, which have seen surging demand from the Chinese market. In biopharmaceuticals, China has established a robust industrial foundation that enables it to offer lower-cost outsourcing research and manufacturing services for foreign drug developers.

As China undergoes a slowdown in domestic economic and productivity growth while facing increasingly unfavorable geopolitical environments, its trade policymaking will become more complex, posing greater uncertainty and risk to foreign companies. The Chinese government will continue with, or even potentially increase, the use of industrial policy to bolster domestic strategic industries. In the meantime, it is likely to more frequently

use the pretext of national security concerns to justify protectionist trade and investment policies. China's new FIL already outlines grounds for reciprocal actions in the event that Chinese firms are "discriminated" against in overseas markets. Its amended Export Control Law (effective December 2020) also explicitly permits China to take reciprocal actions against countries judged to have "abused export controls" to harm national security interests. Large foreign companies will be particularly at risk. In addition, Chinese authorities are increasingly likely to leverage trade in geopolitical relations, shifting away from countries with which it has tensions while doubling down to secure diverse import sources, as already observed in the agriculture industry.

I. Introduction

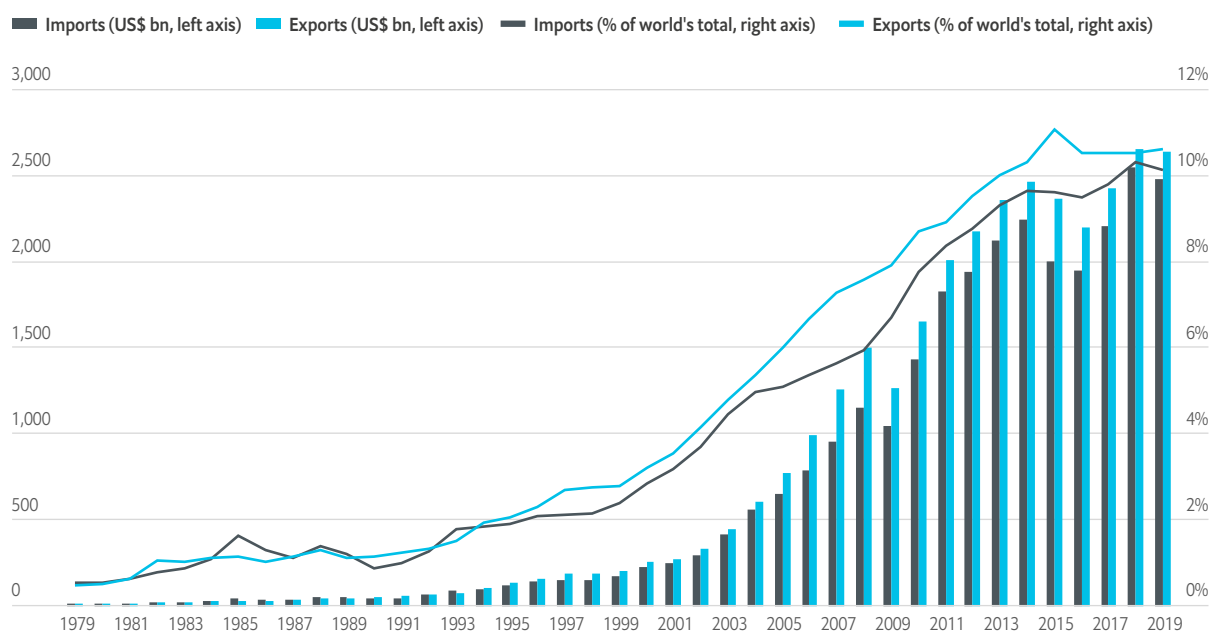
China has achieved remarkable economic growth since its reform and opening in the late 1970s. China has excelled in global trade—a trend that accelerated after it joined the World Trade Organization (WTO) in December 2001. Today, China is the world's second-largest economy, accounting for over 17% of the world's GDP in 2020, and it is expected to overtake the US to stand at first place within the next decade.¹

With the world's largest population and a rapidly growing middle class, China has, since the turn of the century, been one of the most attractive emerging markets for international business and become a magnet for foreign investment. Since 2001 its imports have risen tenfold in value²—slightly greater than its increase in exports in the same period (Figure 1). As of 2019 China has taken the lead in imports, second to only the US, making up 10% of global

total imports.³ Meanwhile, annual foreign direct investment (FDI) net inflows to China have nearly quadrupled over the past two decades—making it the second-largest FDI destination in 2019 (following the US).⁴

China is also the leader in exports, accounting for 11% of total global shipments of goods and services as of 2019. Dubbed the “world's factory”, the country plays a central role in global supply chains and has evolved into a manufacturing powerhouse, producing everything from apparel and footwear to automobiles and high-speed trains. As a result, China has been a net exporter to the world and most major economies since the mid-1990s. And it has consistently registered a current-account surplus, which stood at US\$102.9bn in 2019.⁵ In 2019 China was the leading exporter to eight out of the top ten largest importers globally.⁶

Figure 1
China has become a leader in global trade since its opening in the late 1970s
China's imports and exports of goods and services



Sources: The World Bank, World Development Indicators; The Economist Intelligence Unit.

Given its massive economy, domestic market size and role in global supply chains, China's deepening integration into the global economy, hence its trade policies and practices, have extensive implications for the rest of the world. While the Chinese government has attempted to claim leadership of the global trading system amid the US's shift to a more protectionist trade regime under its former president, Donald Trump, China's administration has drawn criticism from its major trading partners for an unwillingness to fully embrace free trade or comply with international norms.

Critics often point to the Chinese government's market-distorting support for domestic industries and inadequate efforts to create a level playing field for foreign companies. The EU and the US have opposed granting China "market economy" status under the WTO framework, naming concerns over the Chinese government's presence within the economy and its practice of providing trade-distorting subsidies.⁷ In addition, as IP protection remains a central issue in China's trade negotiations with its major trade partners, there have also been growing accusations from Western countries of the Chinese government backing IP theft and cyberespionage activities in recent years.

As tensions between China and the US and its allies intensify, China's trade policies and practices have continuously made headlines and generated heated rhetoric along political lines and across countries, shaping public perceptions and geopolitical climates. In the US, while the Trump administration had aggressively instigated economic "decoupling" from China in the pursuit of a reduction in bilateral trade deficits—which many believe had hurt US interests—the new administration, under the president, Joe Biden, has shown early signs of taking a tough stance similar to

its predecessor.⁸ In the EU, member states commonly view China pragmatically as a partner while becoming increasingly weary of the rivalry and their exposure to political and economic risks associated with China.⁹

Within this context, The Economist Intelligence Unit, commissioned by the Charles Koch Institute, has conducted an in-depth, evidence-based analysis in order to establish a better understanding of China's trade policy and its perceived threat. The study examines the status quo of China's major trade policies and currency positioning, focusing on five select industries—across the primary, secondary and tertiary sectors—to showcase the impacts of China's trade policies, as well as winners and losers, and finally assess the outlook.

China is the leader in exports, accounting for 11% of total global shipments of goods and services as of 2019. Dubbed the "world's factory", the country plays a central role in global supply chains.

II. The state of play: Overview of China's trade policies

China's trade policies are driven by four priorities, including indigenous innovation, self-sufficiency, national security, and market reform and opening. These priorities manifest in the mix of the sustained strong state support for indigenous high-tech industries and the government's elevated commitment to easing restrictions on foreign investment and protecting IP. While the former often includes controversial practices that can distort the market or undermine a level playing field for China's trading partners and foreign investors, the extent to which the latter will materialize remains to be seen.

A. Key policy drivers

Under the ruling political party, the CCP, the national government has identified four priorities that are driving current trade policies and are likely to continue shaping them in the short to medium term.

- **Push for indigenous innovation:** As the traditional growth model led by debt and investment reaches its sustainable limits, the government has been undertaking supply-side structural reform and pushing for a transition towards an innovation-led growth model. Since the mid-2000s the promotion of "indigenous innovation" has been an important component of China's industrialization efforts, particularly in advanced manufacturing of goods ranging from high-end equipment to biotechnology. Most recently, the 14th five-year plan (FYP) outline, proposed and released by the CCP in November 2020, further emphasized the achievement of free-standing and self-strengthening science and technology as the strategic mainstay of the country's development.¹⁰
- **Drive for self-sufficiency:** Intertwined with the push for indigenous innovation over the past two decades has been a drive for self-sufficiency, particularly in industries essential to national security—such as agriculture and energy—or choke points where China is reliant on imports, such as semiconductors. Most recently, deteriorating diplomatic and trade relations with the US and other Western countries have intensified the Chinese government's calls for greater economic self-sufficiency. Since May 2020 Chinese policymakers have been discussing a "dual-circulation model," which identifies the domestic market—rather than external markets—as the mainstay of the Chinese economy and encourages a drive towards self-sufficiency.
- **Enhancing national security:** National security and, in turn, industrial and trade policymaking have been increasingly linked to China's drive for innovation and self-sufficiency. One manifestation of this priority is the military-civil fusion strategy, a policy first elevated by China's president, Xi Jinping, in 2014 that embodies the philosophy of developing dual-use technology that boosts both economic growth and national security. Moreover, in 2015 China passed the National Security law, mandating a security review for certain areas of foreign investment. Furthermore, the latest "dual-circulation model" is another signal of the government prioritizing national security in its economic and trade policies.
- **Market reform and opening:** In 2013 the Chinese government pledged to give the market a "decisive role" in the allocation of resources by 2020, suggesting willingness to pare back the state's direct control of the economy. However,

associated reforms have since been underwhelming, and the government has in fact moved to solidify the role of the state in the economy. Nevertheless, the market has been given a greater role in certain areas, partly a result of growing external pressure amid the recent US-China trade conflicts. China has eased restrictions on FDI over the past several years, especially in certain areas such as financial services. The new FIL, which came into effect in January 2020, further addresses some key concerns of foreign investors related to technology transfer and trade secret protection.

B. Efforts to bolster domestic industries

Despite China's central role in global supply chains, its dominance mostly remains in low-value-added, labor-intensive manufacturing. Over the past decade, the Chinese government has stepped up efforts to transform the country into a major global competitor in the higher end of the value chain—especially in high-tech and advanced manufacturing sectors—by cultivating indigenous innovation and reducing dependence on technologies from other countries. To this end, a variety of industrial policies and instruments have been adopted, including some—such as industrial subsidies—that have drawn concerns from other nations over fairness and legitimacy.

High-tech ambition

In 2010 the State Council (China's cabinet) initiated the SEI policy targeting seven sectors: energy efficiency and environmental technologies, next-gen information technology, biotechnology, high-end equipment manufacturing, new energy, new materials, and new-energy vehicles.¹¹ The government has since emphasized the SEIs

as key focuses for industrial development in each new FYP. In 2018 the catalog of SEIs was updated to include the digital creative sector and the sector that provides IP right (IPR), R&D and other related services to SEIs.¹² The new catalog also added products and services under existing sectors, such as artificial intelligence under next-gen information technology and robots under high-end equipment manufacturing. In light of the economic slowdown amid the covid-19 pandemic, in September 2020 the National Development and Reform Commission (NDRC) issued a set of guidelines to expand investment in SEIs in order to cultivate new growth momentum.¹³

In 2015 the State Council launched a ten-year blueprint targeting ten advanced manufacturing sectors¹⁴ called Made in China 2025 (MiC2025), an aggressive push for SEIs development and technology advancement.¹⁵ The blueprint and associated roadmap aim for domestic companies to capture significant shares of both the domestic and international markets, with the help of strong state support. While China has deemphasized the blueprint in public since the US-China trade dispute escalated,¹⁶ MiC2025 has continued to be implemented on a large scale. This is evident in the high degree of overlap in sectors covered by MiC2025 and the updated 2018 SEIs catalog.

As a result of the government's strong push, China has seen significant development in its SEIs over the past decade. By 2015 SEIs accounted for 8% of China's GDP, achieving the government's 12th FYP target, and reached 11.5% in 2019. However, it fell short of the 2020 target of 15% due, in part, to the wider economic hit caused by the covid-19 pandemic. Between 2016 and 2019 the annual gross value added from industrial production of SEIs on average grew by 10.5%, faster than China's overall industrial

growth at 6.1%. The annual revenue of services provided by SEIs increased by 15.2% on average, compared with the 11.3% rise for the overall service industries.¹⁷

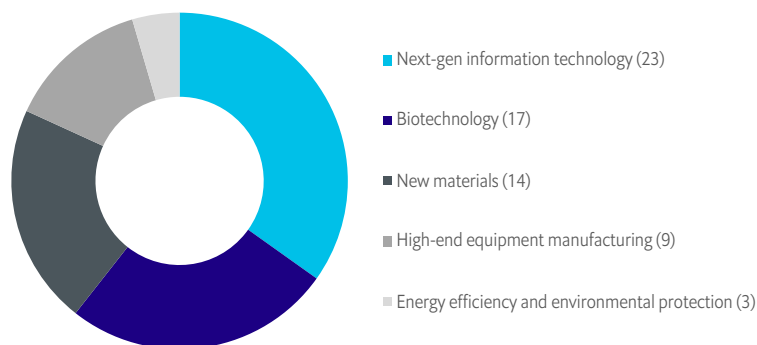
The SEI development is a result of various supports provided by the government in the forms of tax incentives, industrial parks and government-guided investment funds, among others. **Tax benefits** are a typical financial incentive. As of 2020 high-tech enterprises are eligible for a 15% reduction in corporate income taxes and a 175% pretax deduction for qualified R&D expenses.¹⁸ Special tax benefits are also granted to certain SEIs. For example, in the semiconductor or integrated circuit industry, qualified producers can receive a corporate income tax exemption for up to ten years.¹⁹

In addition to offering beneficial tax structures, the government also supports high-tech companies via investment in building **industrial parks and clusters**. As of 2018 there were over 2,500 national and provincial industrial parks and more than 5,000 municipal or county-level industrial parks.²⁰ As well as collocating high-tech companies, these are typically designed

to promote innovation and R&D through tax incentives, direct subsidies and other support. For example, over 100 national high-tech and economic industrial parks involve biotechnology, in addition to more than 400 provincial-level biotech industrial parks.²¹ To accelerate the development of SEIs, the NDRC announced a new batch of 66 national SEI clusters in December 2019 (Figure 2). Companies located in these clusters will receive financing support, expert advisory services, IP protection and other services support.²²

Government guidance investment funds (GIFs), which first emerged in 2002, have become a major financing vehicle for the Chinese government's industrial policy in the past decade. By the end of 2018 an estimated 1,636 GIFs were making equity investments in companies in chosen industries, with their total capital exceeding Rmb4.05trn (US\$611bn).²³ In particular, the central government has launched several funds dedicated to SEIs, including the Advanced Manufacturing Industry Investment Fund Phase I & II (total capital: Rmb70bn or US\$10.6bn) and the National SEI Development

Figure 2
Distribution of national SEI clusters by sector



Sources: NDRC; The Economist Intelligence Unit.

Fund (total capital: Rmb300bn or US\$45.2bn), as well as funds dedicated to specific industries, such as the National Integrated Circuit Industry Investment Fund.

While GIFs are mostly financed by central and local governments, state-owned enterprises (SOEs) and state-owned financial institutions, there is a lack of public transparency around how funds are allocated. As a result, concerns are growing among China's trading partners and foreign investors over the heavy involvement of state capital in the private sector and the risks of market distortion.²⁴ Some critics also see GIFs as a way of avoiding charges of government subsidization under the WTO agreement.²⁵

Subsidies

The Chinese government's substantial support for domestic SEIs and other industries have given rise to criticism of its use of market-distorted industrial subsidies, which, alongside a lack of transparency, has been a sticky point in trade tensions with trading partners. For example, the US has filed five cases in the last ten years at the WTO challenging China's use of subsidies. These cover a wide range of industries, including aluminum, agriculture, building materials, automobile and wind energy.

As the WTO currently only bans subsidies conditioned on export performance or contingent on the use of domestic over imported goods, most Chinese government subsidization takes forms that do not necessarily violate (or are not easily proven to violate) WTO rules. Chinese authorities at both national and sub-national levels provide support for select industries through preferential prices of energy and other intermediary inputs, concessional loans on non-commercial terms, and loosened enforcement of environmental regulations, among others. State-owned banks and SOEs in energy and upstream industries are

■ **According to OECD data, the global aluminum industry received over US\$68bn in various government supports during the period from 2013 to 2017, with 92% of total subsidy funds allocated to Chinese companies.**

often involved to execute the support. Local governments are particularly motivated to subsidize local champions, many of which are also SOEs. In fact, it is not unusual for local governments to encourage banks to provide loans in order to protect uncompetitive local champions from bankruptcy.²⁶

Critics argue that unfair subsidies can damage market efficiency, cause overcapacity and distort international trade. The case of the aluminum industry supports these claims: according to OECD data, the global aluminum industry received over US\$68bn in various government supports during the period from 2013 to 2017, with 92% of total subsidy funds allocated to Chinese companies, contributing to overcapacity.²⁷ A similar problem occurred in the steel industry.

China's trading partners, particularly the US and the EU, have continued to pressure China to notify the WTO of its use of subsidies and increase transparency regarding fund allocation, albeit with limited results. The subsidy issue was left out of the US-China Phase One trade deal.²⁸ While the EU originally aimed to resolve the subsidy issue in negotiations for the EU-China Comprehensive Agreement on Investment, it has won no commitment from China other

than to increase transparency on subsidies to certain service industries. In addition, the US, the EU and Japan have been working together to develop a proposal to reform the WTO rules governing subsidies and expand the scope of prohibited subsidies, revisions aimed at large subsidizers like China. However, it will take time to receive a broad consensus among WTO members.²⁹ As such, subsidies will remain a major instrument through which the Chinese government bolsters its domestic industries for the foreseeable future.

C. Practices targeting foreign companies

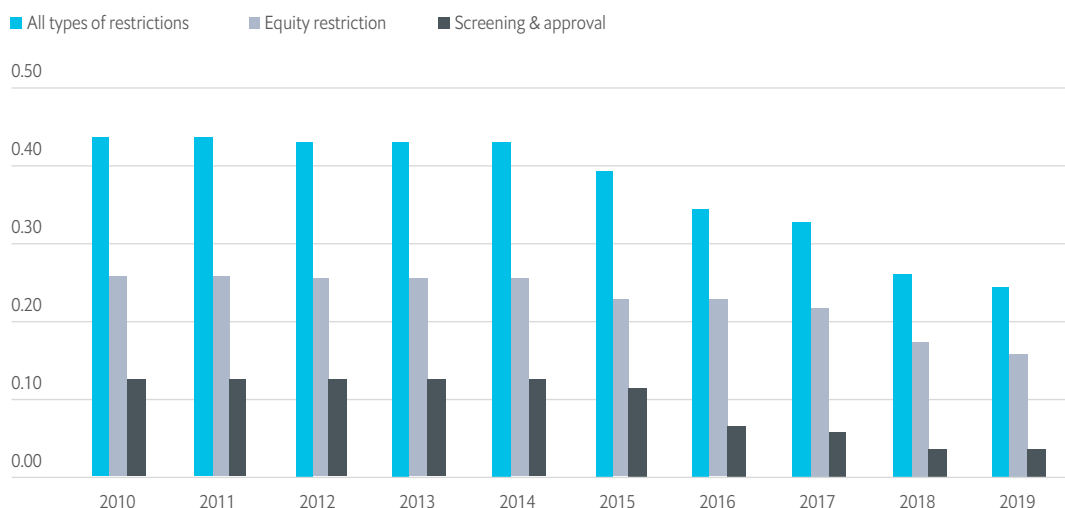
Alongside efforts to strengthen indigenous industries, the Chinese government has implemented a variety of policies that inhibit foreign investment, compel foreign companies to exchange market access with technology, or prevent their exports of goods and services to the Chinese market. In light of intensified trade tensions with the US and growing pressure from other trading partners, the Chinese

government has committed to further opening the market and addressing key issues such as forced technology transfer and has taken substantive actions through new legislation and regulatory relaxation. However, the extent and quality of implementation remain to be seen and some barriers—including prohibition on foreign investment in national-security-sensitive sectors—will remain.

Restrictions on foreign investment

China has traditionally prohibited or limited foreign investment in a wide range of industries in order to protect domestic companies from international competition and for national security reasons. Investment restrictions manifest primarily in the form of joint venture (JV) requirements and caps on equity shares held by foreign investors, as well as administrative screenings and approval processes (Figure 3). As part of its recent market liberalization efforts, the Chinese government has purportedly opened up a number of industries to foreign investors since 2018 by easing equity restrictions. However,

Figure 3
China's FDI Restrictiveness Index has improved significantly since 2015



Sources: OECD; The Economist Intelligence Unit.



significant barriers remain. According to the OECD's 2019 FDI Restrictiveness Index (scaled from 0 to 1, with 0 indicating full market opening), regulatory curbs in China (0.244) are more than threefold the OECD average (0.064).³⁰

In July 2018 the NDRC, together with the Ministry of Commerce, released the Special Administrative Measures for the Access of Foreign Investment ("Negative List"), which replaced the negative list for foreign investment in the Catalog for the Guidance of Foreign Investment Industries (2017 revision). The Negative List relaxed or removed restrictions on foreign investments in 15 sectors, including lifting equity restrictions on commercial banks, power grid construction and operations, and international marine transport.^{31,32} Since then, the Chinese government has continued to reduce the number of sectors on the annual Negative List—decreasing from 48 in 2018 to 33 in 2020—while adding segments in which

foreign investment is encouraged. However, as of 2021 industries including rare earth mining, postal services and news agencies remain closed to foreign investors, and equity restrictions remain in industries such as telecommunications and air transport.³³

Despite easing equity restrictions, other remaining barriers such as licensing approval processes (especially for service industries) and stringent security reviews can prevent foreign investors from accessing Chinese markets. For example, required licenses for website hosting (an internet content provider license) and online payment processing are largely off-limits to foreign companies or otherwise difficult to obtain. Moreover, the new FIL establishes a national security review (NSR) that covers any transactions "with Chinese interests", including any foreign acquisition of a domestic enterprise. Risk evaluation criteria in the NSR remain broad and vaguely defined, posing a significant regulatory risk to foreign companies.

Forced technology transfer

Forced technology transfer has been another major concern for foreign companies operating in China, despite the Chinese government's claims that no laws, regulations or policies obligate such an activity.³⁴ China's major trading partners including the US and the EU have criticized Chinese central and local governments using forced technology transfer as a key policy tool in their pursuit of the MiC2025 and SEI goals. In response to growing pressure from trading partners, China has committed to addressing this issue through the new FIL, but the effect of actual enforcement remains to be seen.

According to the US Trade Representative, Chinese authorities from central to local levels often use foreign equity restrictions to require or pressure foreign companies to transfer technology to Chinese entities. This may come from officials in the form of oral communication and informal guidance during administrative review and licensing processes.³⁵ This claim is supported by surveys of foreign businesses in China, which also show that the issue is particularly severe in high-tech and advanced manufacturing sectors.

In a member survey conducted by the US-China Business Council in 2017, among the 19% that reported having been directly asked to transfer technology to China, 33% received the request from a central government entity and 25% from a local government entity.³⁶ In 2018 the American Chamber of Commerce in Shanghai reported that one in five member companies had felt pressure to transfer technology in exchange for market access. Companies in the aerospace and chemical industries were the most affected, with two out of five having faced "notable" pressure.³⁷ More recently, in 2020 the EU Chamber of

In 2020 the EU Chamber of Commerce in China's Business Confidence Survey showed that one in three members in medical devices, aerospace and aviation, and environment, had felt "compelled" to transfer technology in exchange for market access.

Commerce in China's Business Confidence Survey showed that 16% of its member companies, and one in three members in medical devices, aerospace and aviation, and environment, had felt "compelled" to transfer technology in exchange for market access.³⁸

One high-profile example of this policy is found in the new-energy vehicle (NEV) industry—which broadly includes plug-in hybrid electric vehicles (EVs), battery EVs and fuel cell EVs—and is within the scope of SEIs. In January 2017 the Ministry of Industry and Information Technology (MIIT) issued a regulation that outlined a set of requirements for an automaker to be qualified an NEV manufacturer. Automakers had to prove all elements of NEV technology had been "mastered", including "design and development capability" that was previously not required. This policy met immediate backlash from foreign original equipment manufacturers (OEMs), which said that it would in practice force them to disclose and transfer critical know-how to their JVs in China.³⁹ Although the minister of MIIT later publicly denied such intention, the government eventually removed the requirement in August 2020.^{40,41}

While many Chinese officials and businesses consider it fair to trade market access for foreign technology, forced technology transfer can be a deterrent for many foreign investors, which continue to view China's IPR protection regime as porous and relatively weak. As a result, China's trading partners—especially the US and the EU—have lately been pushing for change. For example, the US-China Phase One trade deal and the EU-China Comprehensive Agreement on Investment have both laid out clear rules against the forced transfer of technology.

Domestically, Chinese lawmakers recently took a major step to explicitly prohibit forced technology transfer in its new FIL. The law also provides for “pre-establishment national treatment” of foreign companies, which, in theory, grants them equal treatment to domestic firms. However, with no specifics provided in the FIL, concerns linger with regard to how the provision will be enforced and, therefore, whether foreign companies will feel any effect at all.⁴²

Other market access barriers

In addition to investment restrictions and pressure to transfer technology, foreign companies also face various barriers to either exporting products and services to or operating in the Chinese market, including (but not limited to):

Import barriers: Tariff-rate quota management, sanitary and phytosanitary (SPS) measures and other technical regulations often pose barriers to importing foreign goods, especially food and agricultural products. In addition, the Chinese government has, allegedly, increasingly used import bans as a “coercive” measure to achieve diplomatic goals.

Price control: The government maintains price controls on several products and services ranging from pharmaceuticals and

natural gas to certain telecommunications and transport services.

Cybersecurity: The Cybersecurity Law, taking effect in June 2017, and subsequent cybersecurity regulations, including reviews of cross-border data transfer and network products and services used in critical information infrastructure, have raised concerns among foreign companies over increased compliance burdens and implicit market barriers.

Standards setting: While China has doubled down on its statecraft to support the development and internationalization of Chinese standards, foreign companies have reported unequal access to the standards-setting process compared with that of domestic players.⁴³

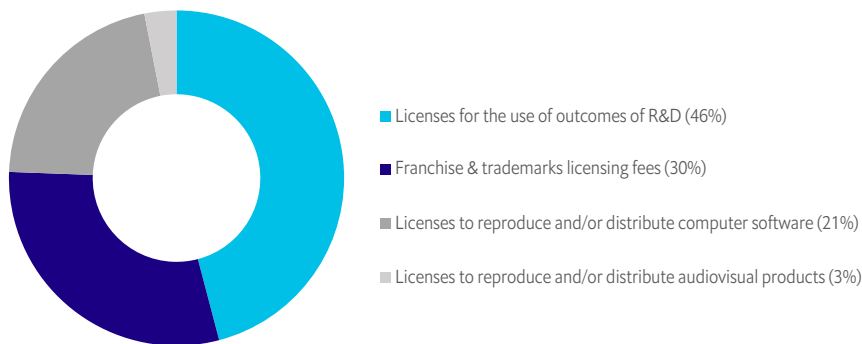
D. Intellectual property rights

Despite China's continuous improvements in IPR protection over the past decade, IPR infringement remains a key concern for foreign businesses seeking to trade with or invest in the Chinese market. According to a 2020 survey by the EU Chamber of Commerce in China, more than a third of respondents had suffered IP infringements in China, with the majority occurring in the previous year. Unsurprisingly, 36% of respondents cited the risk of IP infringement as the leading reason why they were unwilling to bring their latest technology to China.⁴⁴ Inadequate IPR protection and theft of trade secrets are among the often-cited challenges faced by foreign companies.

IPR protection

In parallel to China's endeavor to develop high-tech sectors and move up the global value chain, its payments of licensing fees and royalties for the use of foreign IP have surged. In 2019 Chinese payments for foreign

Figure 4
Chinese payments for American IP, 2019



Sources: US Bureau of Economic Analysis; The Economist Intelligence Unit.

IP totaled US\$34.4bn, triple the 2009 level.^{45,46} A similar pattern is observed in Chinese payments for the IP owned by American rights holders, which jumped from US\$2.2bn in 2009 to US\$8.1bn in 2019. Specifically, 67% of the payments were made for licenses for R&D outcomes and to reproduce and/or distribute computer software (Figure 4).⁴⁷

China's growth in total IP payments is partly a result of improved domestic IPR protections. The improvement has been driven not only by external pressure from trading partners but also by a growing awareness among Chinese policymakers and business community that IPR infringement hampers indigenous innovation. At a politburo meeting on November 30th 2020, Mr Xi emphasized the importance of committing to IPR protection, given that China intends to transform from a country that imports IP into one that creates it.⁴⁸ In 2019 China surpassed the US to become the top filer of international patents, although its ratio of patent grants to applications was only half that of the US—indicating lower quality of its patent applications.⁴⁹

With these goals in mind, China has made substantial efforts to improve its legal framework for IPR protection, making notable strides in recent years. Chinese lawmakers made a series of amendments to key IP laws, including Trademark Law (revised in April 2019; effective November 2019), Patent Law (revised in October 2020; effective June 2021) and Copyright Law (revised in November 2020; effective June 2021). The amendments consistently focus on raising infringement penalties and enhancing IPR protection.^{50,51,52} However, several factors continue to prevent effective IP protection, including an emphasis on administrative (as opposed to judicial) enforcement, coupled with insufficient co-ordination between government agencies, a lack of political will by officials (particularly on local levels), and inadequate enforcement resources and capacity.

IP theft

In addition to inadequate IPR protection and enforcement, IP theft (eg, technology, trade secrets, critical commercial information) by Chinese entities and individuals have been a contentious issue in the country's relationship

with major economies. According to William Evanina, former director of the US National Counterintelligence and Security Center, Chinese theft of American trade secrets costs the US at least US\$300bn per year.⁵³ In addition, there have been frequent reports of economic espionage backed by the Chinese government and military across Western countries (accusations Chinese authorities have repeatedly denied), with an increasing number occurring in cyberspace.^{54,55}

According to the US-China Business Council's member survey in 2020, about three in ten respondents noted IP theft as a cybersecurity-related concern.⁵⁶ High-tech and advanced manufacturing sectors, including aerospace, semiconductors and healthcare, are reportedly the most frequent victims of physical and cyber-enabled theft of trade secrets and critical commercial information.⁵⁷

While Chinese authorities have repeatedly denied the accusations of any government involvement in such theft, they have taken steps to strengthen the legal framework to protect trade secrets. One major legislative effort was the new FIL, which provides stronger IPR enforcement measures, including criminalizing the theft or leakage of foreign company trade secrets by government officials.^{58,59} In addition to the FIL, China also amended the Anti-unfair Competition Law in April 2019, expanding the scope of trade secret protection to "all trade information" (including both technical and business information) and explicitly prohibiting the theft of trade secrets by all individuals (not just government officials) and via the internet. At the same time, lawmakers amended the Administrative Licensing Law to prohibit the disclosure of trade secrets during licensing proceedings (unless authorized by law). However, enforcement of these amendments remains uneven across different regions of China.⁶⁰

E. Currency positioning

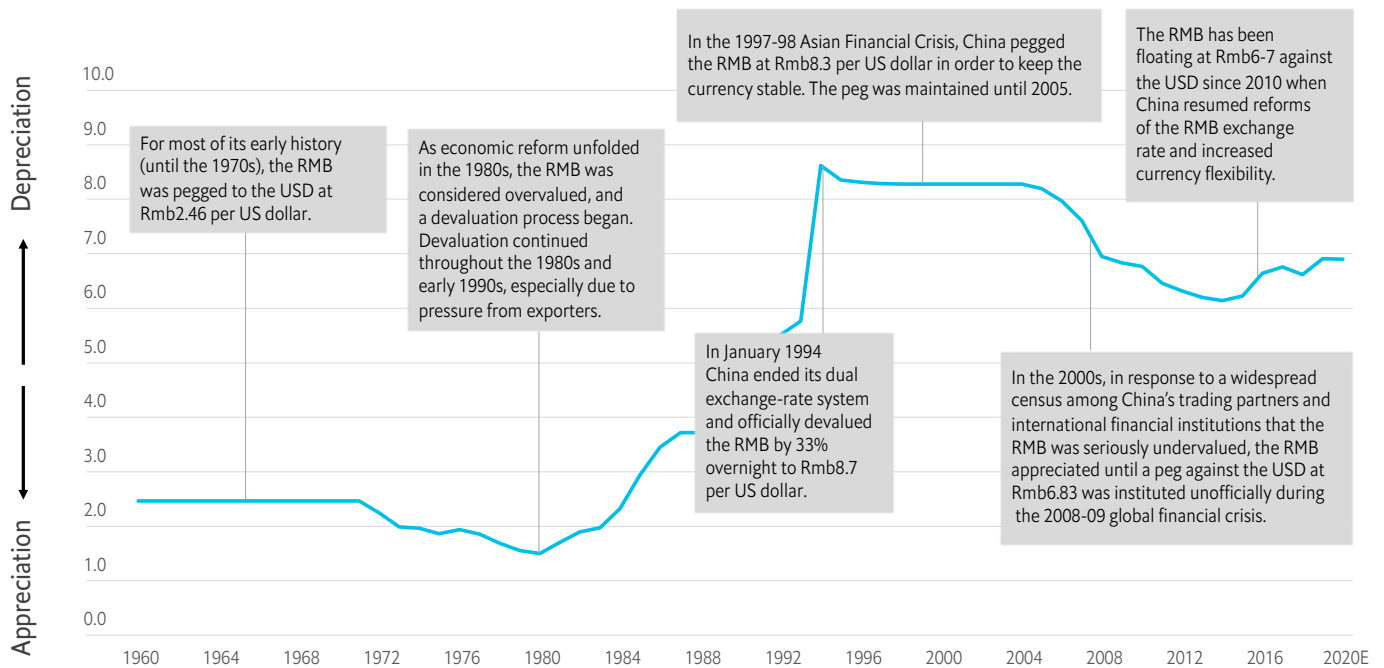
Establishing the "fair" or "perfect" value of a currency—particularly those of major economies (eg, pound, yen and euro)—has been one of the most contentious issues in global trade since the second world war. As China becomes a leading economy and increasingly intertwined with the rest of the world, its currency policy and the positioning of the renminbi (RMB) have been a frequent area of focus in trade disputes. Despite some critics—often driven by political interest—claiming that China is manipulating its currency, a consensus has emerged among international financial institutions and leading economists that the currency is no longer undervalued.

History of the RMB

China has undergone tremendous economic reform since the late 1970s, including the transformation of its exchange-rate regime. Over the past two decades Chinese authorities have gradually loosened the exchange-rate control, increasing currency flexibility to better reflect market supply and demand (Figure 5). Today, China adopts a managed floating exchange-rate regime, under which exchange rates fluctuate daily, while the People's Bank of China (PBC, the central bank) can influence the rate by buying and selling currencies based on evaluation with reference to a basket of foreign currencies.

China is not unique in terms of not embracing free-floating exchange rates. According to the IMF, apart from 19 countries in the EU and 12 other countries that have a free-floating exchange-rate regime, 47 countries—including China—have floating or managed floating regimes. The remaining 113 countries have soft peg regimes, hard peg regimes or regimes with no separate legal tender.⁶¹

Figure 5
China's exchange-rate regime reforms over the past four decades
Rmb: US\$ market exchange rate, annual average



Sources: World Bank; The Economist Intelligence Unit.

Currency (mis)alignment

While estimates of currency misalignment can vary significantly, depending on applied economic models and assumptions, there was widespread consensus that the RMB was undervalued in the 2000s through early 2010s. Several economic studies issued in 2009 concluded that the RMB was undervalued against the US dollar by 12%, 25%, 40% and 50%, respectively.⁶² In 2011 the IMF—for the first time—publicly stated that the RMB was “substantially below the level consistent with medium-term fundamentals,”⁶³ and repeated its assessment that the RMB was “moderately undervalued” from 2012-14.⁶⁴

An undervalued currency can boost the competitiveness of a country's exports and enhance its attractiveness as a destination for foreign investment. But currency devaluation also has its drawbacks. An

undervalued currency makes imports more expensive, hurting domestic consumers' ability to purchase foreign products and services and increasing production costs of domestic sectors and companies that rely on raw materials or intermediate goods from abroad. In addition, companies with USD-denominated debt also suffer from increased debt service costs.

However, over the past five years, major international financial institutions and leading economists have recognized that the RMB is no longer undervalued. Following the RMB's continued appreciation in the early 2010s, in 2015 the IMF assessed that it was “no longer undervalued”⁶⁵ and annual reports since indicate it remains “broadly in line with fundamentals.”⁶⁶ Similarly, leading economists also concluded that the RMB has not been undervalued since late 2014.⁶⁷

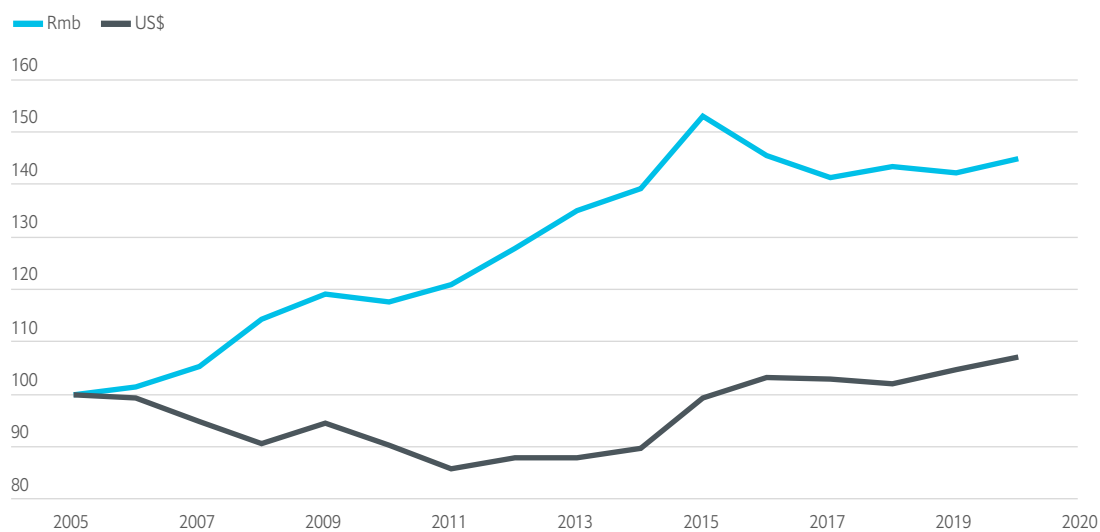
Nevertheless, criticism that China has intervened in its currency markets in order to gain a competitive advantage in global trade is unceasing. The latest culmination of this trend is the US's designation of China as a currency manipulator in August 2019—the first time it has done so since 1994.⁶⁸ The designation, however, was generally seen as politically symbolic, and lasted only five months until being removed in January 2020.⁶⁹

Despite this ongoing criticism, accusations of currency manipulation are not well founded when examining the RMB's values over the long term. In nominal terms, the currency has appreciated by over 20% against the US dollar since July 2005, when China abandoned the fixed exchange-rate regime.⁷⁰ More importantly, analysis of the real exchange rate—which takes into account price levels of a country compared with its trading partners, and hence better captures the influence of

exchange-rates on competitive advantage—tells a different story. Since 2005 the RMB has appreciated roughly 45% relative to the currencies of its trading partners, implying a loss of competitiveness due to the exchange-rate shift. As a comparison, the US dollar has appreciated 7% during the same period (Figure 6).

In practice, the exchange rate is only one of many factors that affect cross-border trade flows, hence the limited impact—particularly in the long run. Compared with the exchange rate, factors including costs of product inputs (such as labor, energy) and regulatory compliance costs tend to have greater impacts on China's fundamental competitiveness relative to its trade partners and hence trade balances. In addition, China's current dominance in the global supply chains of certain sectors also makes its exports resilient to exchange-rate fluctuation.

Figure 6
Real effective exchange rate: annual average, 2005 = 100



Note: Real effective exchange rate is an average of bilateral real exchange rates between a country and each of its trading partners, weighted by respective trade shares. In the figure above, a value greater than 100 implies a loss of competitiveness relative to trade partners due to the real exchange rate, while a value less than 100 implies a gain in competitiveness due to the real exchange rate.

Source: The Economist Intelligence Unit.

III. Industry highlights

Under the overarching development strategies and focuses, China's trade policies and practices across industries vary in terms of priorities and the mix of specific measures. This variance is demonstrated in the five industries examined in this section. While the government is stepping up efforts to open the financial market, it continues to use subsidies and import barriers to protect the domestic agriculture industry. Within the manufacturing sector, it has focused on curbing excess capacity in steelmaking, while aggressively investing in semiconductors and biopharmaceuticals in order to play catch-up to global leaders. Given China's massive economic and market size, its trade policies and practices have inevitably had wide-reaching, albeit distinct, impacts on its trade partners depending on their positions in global trade and supply chains.

A. Agriculture

Policy priorities and implementation

Agriculture and rural development are fundamental to China's food security and social stability, and hence a top government priority. Because food supply has a direct bearing on consumer prices, the development of the domestic agriculture sector holds consequences for wider social stability. With 40% of the Chinese population residing in rural areas and agriculture accounting for 25% of employment,⁷¹ the CCP has long considered the economic and social development of rural areas crucial to its ruling legitimacy. To ensure food security and enhance self-sufficiency, the government has supported domestic

agricultural producers with various subsidies and utilized trade policies to protect them from competition from imports. Meanwhile, given the fast-growing food demand driven by the rising middle class, coupled with limited availability of arable lands and relatively low agricultural productivity, China has inevitably looked outwards to expand external supply and is becoming a leading agricultural importer. As such, the government is increasingly leveraging its buying power in geopolitical conflicts while stepping up efforts to secure diverse import sources.

For decades China has endeavored to achieve food self-sufficiency, especially in staple grains. However, this ambition is facing pressures from rural labor shortages because of increasing urbanization and an aging population. The Chinese Academy of Social Sciences, a government think-tank, forecasts a production shortfall of 130m tonnes of food in China by 2025, including 25m tonnes in wheat, corn and rice—the three key grains consumed the most by Chinese.⁷² Major shocks in recent years, including an outbreak of African swine fever and the covid-19 pandemic-induced supply disruption, have also raised fresh concerns over food security. In October 2019 the State Council issued a white paper, *Food Security in China*, stressing the importance of self-sufficiency in grains via ensuring domestic production capacity.⁷³

The Chinese government has provided various **supports for the domestic agricultural sector development**, including market price support, budgetary transfers to producers (eg, direct payments for grain producers and

subsidies for agricultural inputs) and general services (eg, agricultural knowledge system and marketing and promotion). Such support added up to 1.7% of the country's GDP in 2017-19—which has been relatively stable since the 2000s and almost threefold the OECD average.⁷⁴ According to the OECD, more than two-thirds of China's support to domestic producers are in the form of transfers that are potentially market-distorting, a consistent pattern over the past two decades. These subsidies have been most prominent in staple food grain production and have been increasing in pork and other livestock production in recent years following the outbreak of African swine fever.⁷⁵

While agricultural subsidies are commonly used across countries, China's relatively high levels of subsidies have drawn criticism from its trading partners. In September 2016 the US filed a WTO complaint suing China for violating its commitment of spending limits on support to domestic growers of wheat, rice and corn and "created an incentive for Chinese farmers to increase production of the subsidized crops, displacing imports and distorting international trade."⁷⁶ In 2019 the WTO ruled that China exceeded its 8.5% de minimis level of support for rice and wheat. In June 2020 China notified the WTO that it had implemented changes to comply with the WTO recommendations, which cap the annual quantity of wheat and rice eligible to receive government support at a level substantially less than total national production. However, the US did not consider the new policy to comply with the WTO ruling and in July 2020 requested the WTO's authorization to take countermeasures.⁷⁷

To protect domestic farmers, the Chinese government has set **market access barriers to agricultural imports**, although it has

■
According to the OECD, more than two-thirds of China's support to domestic producers are in the form of transfers that are potentially market-distorting, a consistent pattern over the past two decades.

gradually opened up the market since the 2000s to fulfill its WTO commitments. Tariff-rate quota (TRQ) is a major import policy that is often cited by China's trading partners as one of many barriers to foreign agricultural products, alongside SPS measures, technical regulations and administrative inefficiency. A TRQ system sets lower tariffs for imports within a certain quantity annually and higher rates for quantities beyond the quota.⁷⁸ When joining the WTO, China committed to annual TRQs on ten agricultural products, including the three key grains: 9.6m tonnes for wheat, 5.3m tonnes for rice and 7.2m tonnes for corn. Import tariffs for these grains within the quotas are 1% while the over-quota tariffs are 65%.

However, until 2019 China's imports of these grains had never exceeded the quotas eligible for the 1% tariff. As a result, in December 2016 the US filed a WTO complaint against China, alleging China's TRQs for wheat, rice and corn had inhibited imports. In 2019 the WTO ruled in favor of the US. In January 2021 the US and China agreed that China would comply with its WTO obligations by March 31st 2021.⁷⁹ Already, in 2020 China for the first time exceeded the annual TRQ for corn and

imported 11.3m tonnes of the grain, driven by rising demand from a recovering pig sector and a shortfall in domestic corn supplies.⁸⁰

Over the past decade, there has been criticism about the Chinese authorities **leveraging China's commercial clout and adopting "coercive measures" to achieve diplomatic goals.**^{81,82} Agricultural imports have been a frequent target of such measures. Amid the deterioration of diplomatic relationships with Western countries in recent years, the government has appeared to increasingly weaponize trade barriers to agricultural imports against major trading partners.

For example, in 2018 Beijing retaliated against the US Section 301 Tariffs by imposing tariffs on a number of US agricultural products, which many believed had a clear political aim to hurt the Trump constituencies in the US Midwest.⁸³ In March 2019 China's border authorities revoked the canola-seed sales permits of two Canadian companies because of detected hazardous pests in several shipments, sparking speculation that it was a retaliation against the Canadian government's detention of Meng Wanzhou, the CFO of Huawei Technologies.⁸⁴ More recently, in 2020, following a suite of Australian policies related to China, including the government's endorsement on an independent investigation into the origins of covid-19, Beijing applied sanctions against 13 Australian industries. The agricultural sector was a primary target, with eight agricultural commodities subject to formal or informal trade barriers.^{85,86}

In parallel to leveraging trade in such a way is a growing emphasis on **diversifying import sources.** Weaponizing agricultural trade towards countries that have high exposure to the Chinese market can be a double-edged

sword. This is particularly the case when China is dependent on importing products from the target countries and then faces the challenge of finding substitutes to fill in the supply gap for an extensive period. Conscious of such constraints and looking to mitigate the vulnerability to supply-chain shocks, the Chinese government has been working to expand agricultural import sources in the past decade.

In particular, it has focused on countries along the routes of the Belt and Road Initiative (BRI), such as those in Central Asia and Eastern Europe. For example, BRI's Silk Road Fund has earmarked US\$2bn for Kazakhstan, with much of it linked to agriculture, and China is eyeing the country as a new source of wheat, sugar, meat and vegetable oil.⁸⁷ In addition, China has increased agricultural trading (eg, corn, barley and soybean) with Ukraine since 2012 and became the largest export destination for Ukraine's agricultural products.⁸⁸ In June 2019, during the state visit of Mr Xi, China signed a set of documents of co-operation with Russia in various fields, including agriculture, which grant Russian wheat, soybean and meat access to the Chinese market.

Moving forward, the Chinese authorities will continue to augment food security. In addition to enhancing domestic supply and self-sufficiency, they are likely to more actively seek to secure diverse agricultural import sources. In February 2021 the central committee of the CCP and the State Council released the annual rural policy statement, in which the authorities—for the first time—referred to "diversifying agricultural imports" as a "strategy". This movement may suggest China will increasingly shift imports away from countries with which it has geopolitical tensions.⁸⁹

Impact analysis

Accommodating a fifth of the world's population and experiencing a boom in the middle class, China has become one of the world's largest agricultural importers. In particular, consumption of animal proteins has grown fast, at the same time driving growing demand for feed grains for livestock and poultry breeding. Today, China is the world's largest importer of pork and beef. Between 2009 and 2019 its share in global pork imports grew nearly sixfold from 5% to 29%, and its share in global beef imports grew exponentially from below 0.5% to 25%. During the same period, China's imports of feed grains, including soybeans and barley, also increased significantly. As of 2019 China

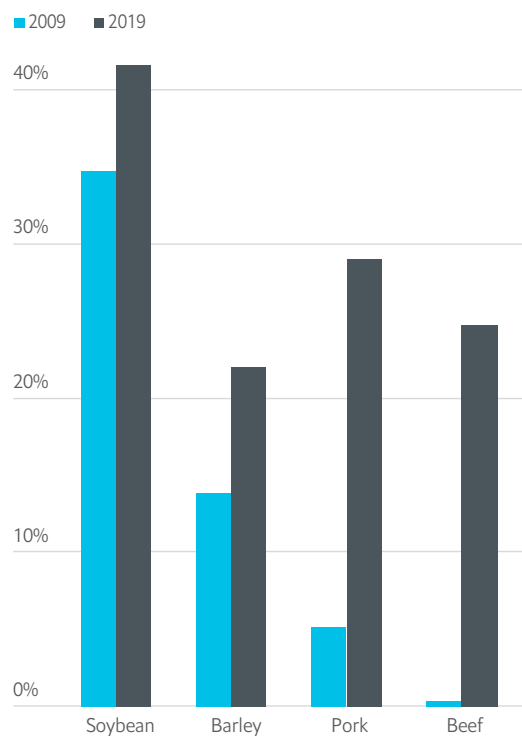
accounted for 42% of the world's soybean imports—more than any other country—and 22% of the world's barley imports, second only to Saudi Arabia (Figure 7). As such, China's domestic industrial and trade policies have had wide-reaching ramifications for global major agricultural producers and exporters.

The Chinese government's intervention in staple food grains, through producer support and trade barriers, poses the risk of market distortion and hurts external suppliers of the three key grains, while exporters of substitute grains could benefit.

Take corn imports. Thanks to government subsidies for corn production and price support in the 2010s, by 2015 China had 250m tonnes of corn in storage—half the world's reserves—which were purchased at levels up to double world prices.⁹⁰ As a result, Chinese feed processing companies looked to import cheap substitutes. However, this was hindered by the TRQ control: although China's corn imports surged by a year-on-year rate of 82% in 2015, a third of the TRQ was left unused.⁹¹ By contrast, China's imports of corn substitutes, including barley and sorghum, surged as Chinese feed processors shifted to these grains that were not subject to TRQ controls. In 2015 China imported 10.7m tonnes of barley—almost twofold the 2014 level—and another 10.7m tonnes of sorghum, up 85% from the previous year.⁹²

China's failure to fully allocate the low-tariff quota to imports of the key grains based on market demand can cause revenue losses for major international suppliers. As shown in Figure 8, from 2015 to 2019 Ukraine, the US, Australia, Canada, Vietnam and other Southeast Asian countries were the primary suppliers of China's imports of the three key grains. During this period, however, China left a massive amount of TRQ unused, with the cumulative quantity reaching 17m tonnes for corn, 10m tonnes for rice and 31m tonnes

Figure 7
China's shares in the global imports of soybean, barley, pork and beef have expanded significantly



Sources: US Department of Agriculture; The Economist Intelligence Unit.

for wheat—equivalent to 10%, 24% and 17% of the world's total imports, respectively, of these grains in 2019.⁹³

In the meantime, suppliers of substitute grains—including barley and sorghum—could benefit when China's consumption of the three key grains is unmet by domestic production. In fact, China has high import reliance for barley and sorghum. In fiscal year 2019/20 China's imports of barley and sorghum accounted for 89% and 52% of its domestic consumption, respectively.⁹⁴ Major suppliers include Australia, the US, Canada and France. In 2015-19 Australia, France and Canada accounted for 55%, 19% and 17% of China's barley imports, respectively; and the US and Australia supplied 87% and 12% of China's sorghum imports, respectively.⁹⁵

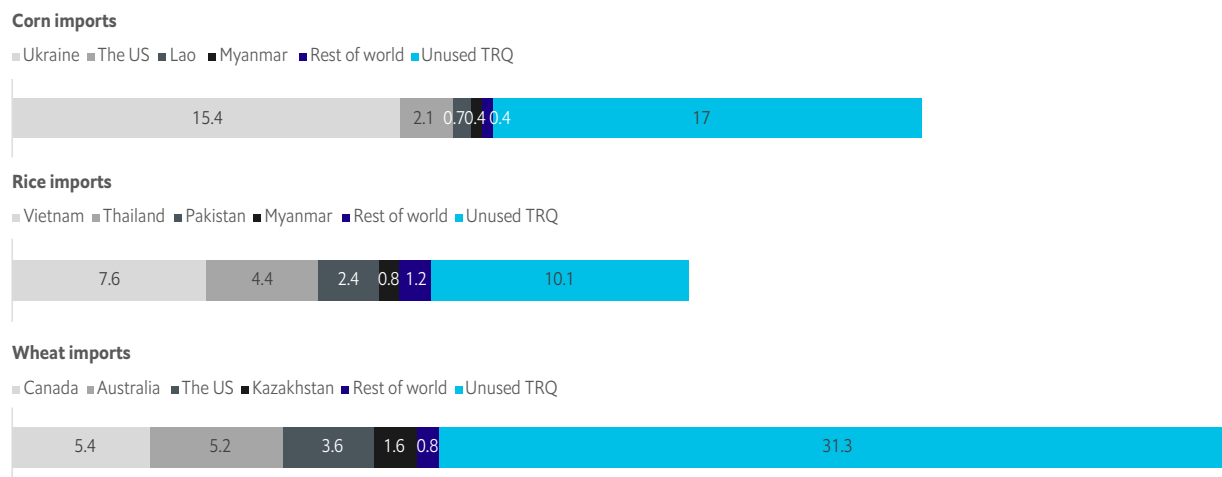
When China leverages agricultural imports in trade wars or geopolitical conflicts, agricultural industries in targeted trading partners will face restricted access to the Chinese market, losing market shares to international competitors. Amid the

China-US trade war, agriculture emerged as an important front line due to the high level of US agricultural shipments to China. By the end of August 2018 China raised tariff rates on almost all US agricultural products to 5-50% above the WTO's most favored nation rates.⁹⁶ As a result, US agricultural exports to China more than halved from US\$19.5bn in 2017 to US\$9.2bn in 2018.⁹⁷ The hit on US soybean farmers was particularly severe. In 2017 China was the largest buyer of US soybeans, accounting for 57% of exports at a value of US\$12.2bn. Due to the trade dispute, the US's soybean exports to China decreased by 75%, to US\$3.1bn, in 2018 and its share in China's soybeans imports in quantity shrunk from 34% to 19% (Figure 9). At the same time, Brazil increased its share in China's soybeans imports from 53% to 75%.⁹⁸

Similarly, in 2019 China's ban on two major Canadian canola exporters hit the industry hard. Prior to the ban, China was the largest importer of Canada's canola seeds, accounting for 47% of Canada's exports in volume in 2018. Following the ban, in 2019 China almost halved

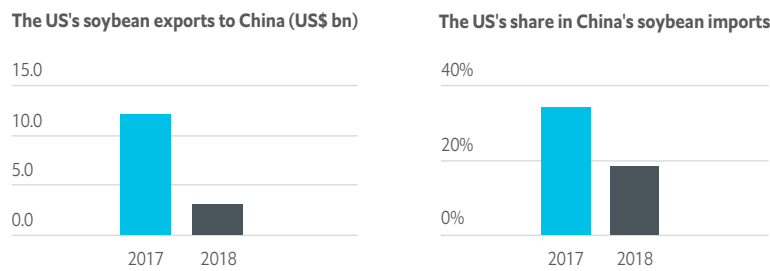
Figure 8

China's TRQ control over corn, rice and wheat hinders imports from its major suppliers
China's cumulative imports of three key grains vs. cumulative TRQ, in millions of tonnes, 2015-19



Sources: International Trade Centre Trade Map; The Economist Intelligence Unit.

Figure 9
The US's soybean exports to China were hit hard amid the trade dispute



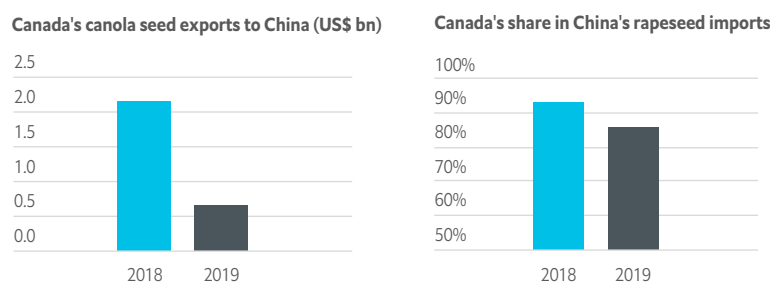
Sources: International Trade Centre Trade Map; The Economist Intelligence Unit.

its imports of canola seeds from Canada. As a result, Canada's share in China's canola seeds imports in volume dropped to 86% in 2019, from 93% in 2018 (Figure 10), while Russia, Australia and Mongolia experienced varying increases in their shares in China's imports of rapeseeds.^{99, 100} The demand decline and uncertainty around the trade dispute forced some Canadian farmers to reduce or even give up growing canola for the year, which could have a broader ripple effect on the economy. According to the Canola Council of Canada, canola generates a quarter of all farming revenue in Canada and about 43,000 farmers (equivalent to 16% of the total agricultural population) grow canola.¹⁰¹ Moreover, canola farming operations support over 207,000 jobs and contribute nearly CA\$30bn (over

US\$22bn) to the economy each year.¹⁰²

In the long run, China's strategy to diversify agricultural import sources can have negative impacts on current major trading partners, particularly those likely to expect increasing geopolitical friction with China, while benefiting competing suppliers. China's recent trade disputes with Australia, Canada and the US have exposed these countries' high exposure to the Chinese market—as well as China's dependence on them—involving several agricultural products, including barley, beef, canola seed, soybean and wheat (Table 1). China has already begun to increase imports of these products from other suppliers. For example, between 2015 and 2019 China's beef imports from Brazil

Figure 10
Following the ban, Canada's canola seed exports to China dropped significantly



Sources: International Trade Centre Trade Map; The Economist Intelligence Unit.

Table 1

Select products and countries likely to be affected by China's import diversification strategy

Country	Product	Exposure to the Chinese market*	China's exposure to the country**	Current competing suppliers to China
Australia	Barley	15%	55%	Canada, France, Ukraine, Argentina, Kazakhstan
	Beef	15%	19%	Brazil, Argentina, Uruguay, New Zealand
Canada	Barley	68%	17%	Australia, France, Ukraine, Argentina, Kazakhstan
	Canola seed	37%	92%	Russia, Australia, Mongolia
The US	Soybean	48%	29%	Brazil, Argentina, Canada, Uruguay, Russia, Ukraine

* Based on China's percentage in a country's total exports of a certain product from 2015 to 2019.

** Based on a country's share in China's total imports of a certain product from 2015 to 2019.

Sources: International Trade Centre Trade Map; The Economist Intelligence Unit.

grew sevenfold, and since 2016 Brazil has surpassed Australia to become the largest supplier. During the same period, China tripled its wheat imports from Kazakhstan, which by 2019 became the third-largest supplier to China. Today, China is also the largest buyer of Russia's soybean, with such imports doubling between 2015 and 2019.¹⁰³

B. Steel

Policy priorities and implementation

Today, China dominates the steel industry and has been the world's largest producer since 1996. It produces more than half of all crude steel and is the world's leading steel exporter. Thanks to the domestic economy's rapid growth, which drives demand for the metal, and the government's industrial policy support, the Chinese steel industry

has expanded remarkably since the 1990s. Since the beginning of the 2000s its annual production has grown eightfold, exceeding 1bn tonnes in 2020. Between 2000 and 2020 the world's annual crude steel production increased by 1bn tonnes, of which 91% came from China.¹⁰⁴ This rapid expansion led to excess capacity and in turn oversupply in the global market, fueling trade tensions between China and other steel producing economies. In response to the external pressure, and driven by the desire to upgrade the domestic industrial structure, the Chinese government has ramped up its effort to curb steelmaking capacity in recent years.

Such excess capacity was mainly a result of **undisciplined investments in steel production encouraged by various levels of government.** Other factors played a

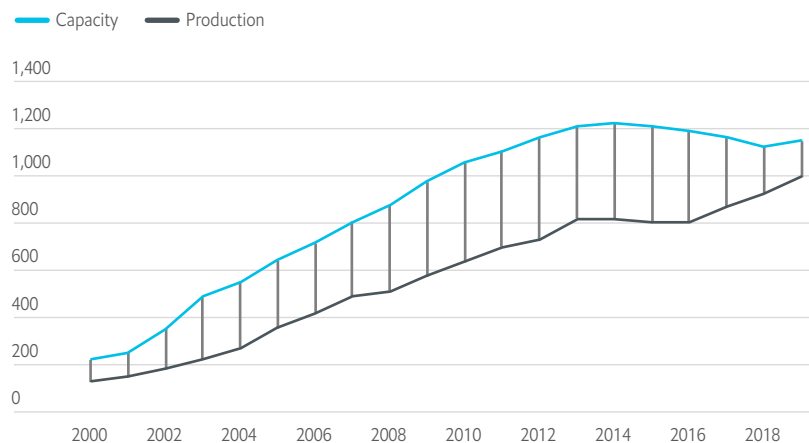
part, including subdued domestic demand in recent years and high-level fragmentation of domestic steelmakers. Because of the importance of steel to industrialization and urbanization, the national government has traditionally considered steelmaking as a strategic industry and provided domestic steelmakers with various incentives, including energy, land and credit subsidies as well as VAT rebates (up to 13%) to steel exports.¹⁰⁵ As the majority of steelmakers are either owned or heavily influenced by governments, and often an important contributor to the local economy and job creation, they have not made earning a positive return on invested capital an important objective.

For example, during the 2008-09 global financial crisis, the Chinese government implemented an economic stimulus package of Rmb4trn (nearly US\$600bn), which boosted domestic infrastructure construction and demand for steel, driving expansion in steelmaking. However, after the stimulus effect faded, a massive oversupply in the market dampened steel prices and

profitability. In order to keep financially stressed steelmakers afloat, many local governments funneled subsidies to these steelmakers. Between 2010 and 2012 the 35 steelmakers listed on the Shanghai Stock Exchange and the Shenzhen Stock Exchange together received nearly US\$1bn in government subsidies, many under the guise of supporting or rewarding R&D and retrofits, energy saving and obsolete capacity removal.¹⁰⁶

China's steel capacity peaked in 2014-15, with the gap between capacity and annual production exceeding 400m tonnes—equivalent to 2.5 times as much as the EU's annual crude steel output (Figure 11).¹⁰⁷ Excess capacity was coupled with surging shipments. Between 2013 and 2015 China's steel exports nearly doubled and hit a record 110m tonnes in 2015, accounting for roughly 14% of its domestic steel production.¹⁰⁸ The influx of lower-priced Chinese steel into international markets triggered a wave of anti-dumping measures from other major steel-producing economies and escalated trade friction. By the end of 2016 the EU imposed

Figure 11
China's steel capacity grew fivefold over the past two decades
 China's steel capacity and production, in millions of tonnes



Sources: World Steel Association; OECD steelmaking capacity statistics; The Economist Intelligence Unit.



antidumping duties on Chinese steel products ranging from 43.5% to 81.1%, and the US levied up to 522% of antidumping duties on a variety of Chinese steel products.^{109,110}

As Mr Xi's administration has increased emphasis on sustainable economic growth and committed to environment protection, the central government has **stepped up the effort to curb steelmaking capacity** in recent years. Since late 2015 supply-side structural reform (SSSR) has emerged as a main economic policy framework in China, aimed at adjusting economic structure, optimizing allocation of resources, and sustaining quality economic growth. One area of focus under the SSSR is cutting overcapacity across industrial sectors, including steel.¹¹¹ In February 2016 the State Council issued a policy document aimed at addressing overcapacity. It included a target of cutting 100m-150m tonnes of crude steel capacity between 2016 and 2020 and laid out a set of guidelines, including banning building

new capacity while phasing out some existing outdated facilities.¹¹²

Starting in January 2018 the central government implemented a policy whereby older facilities would be replaced with more modern capacity—with a required ratio of replaced to new capacity exceeding 1.25:1 to achieve a net reduction.¹¹³ However, some steelmakers were able to skirt the government's control due to lack of supervision, and some provincial governments have also loosened capacity controls to chase economic recovery.¹¹⁴ As a result, the policy has not been adequately implemented and overall capacity increased by 24m tonnes between 2018 and 2019.¹¹⁵ In order to further curb the steelmaking capacity, the national government has been drafting new measures for capacity replacement. On December 16th 2020 the MIIT published Implementation Measures for Capacity Replacement in the Iron and Steel Industry (Draft for Comments), indicating an intention to raise the replacement rate to as high as 1.5:1 in some regions.¹¹⁶

While focused on curbing capacity, the government has also attempted to consolidate the steel industry—which is highly fragmented—by **promoting mergers and acquisitions (M&As)**. However, as of 2019 the top ten steel producers accounted for roughly 40% of the market, significantly lower than the set target of 60% by 2020.¹¹⁷ The consolidation process has been delayed mainly due to conflicts of interest between central and local governments, and the central government is in the process of drafting guidelines to further the sectoral consolidation.

Moving forward, the Chinese government will continue to curb steelmaking capacity while focusing on industrial upgrading, as indicated in recent policy documents. On December 31st 2020 the MIIT published Guidelines on Promoting the High-quality Development of the Iron and Steel Industry (Draft for Comments), outlining a set of 2025 goals ranging from promoting advanced and lower-carbon manufacturing to improving quality and profitability in the steel industry. In particular, the document emphasized the prohibition of new capacity-expanding projects as a main measure to achieve the goals.¹¹⁸

Impact analysis

The exponential growth of China's steelmaking capacity has had broad-reaching economic and environmental ramifications. It increases the risk of oversupply inside and outside China when steel demand fails to keep pace with production. The oversupply causes price plunges and market disruption, often disproportionately hurting non-Chinese steelmakers that do not receive as much state subsidies and support. Producing half of the world's steel, China also plays a central role in the carbon footprint and environmental impact of the industry.

China has grown its share in the global steel market at the expense of other traditional steel supplying markets, including the EU, Japan, Russia, the US and South Korea. Between 2000 and 2020 China's share in global crude steel production rose from 15.1% to 56.5%, while other traditional steel giants saw their respective shares steadily decline (Figure 12). During the same period, the shares of the EU, Japan and the US in global steel production shrunk by six percentage points, four percentage points and three percentage points, respectively. Today, China's crude steel output is more than twofold that of the next five largest steel producers combined, which are the EU, India, Japan, the US and Russia.¹¹⁹

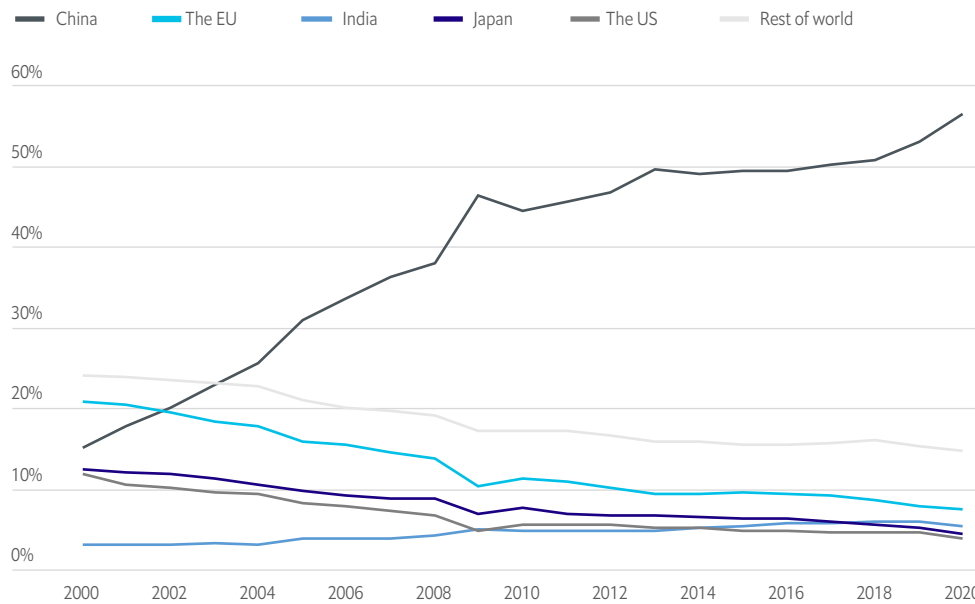
At a company level, major Chinese steelmakers have risen to become the world's top producers. In 2004 the world's top ten steel producers included only one Chinese company, Shanghai Baosteel.¹²⁰ However, by 2019 six had made it into the top ten, while the other four non-Chinese companies were ArcelorMittal (Luxembourg), Nippon Steel Corporation (Japan), POSCO (South Korea) and Tata Steel Group (India).¹²¹ China's dominance is unlikely to change in the foreseeable future. Despite the decline in its overall steelmaking capacity since 2015, China has replaced a significant proportion of its outdated capacity with more modern plants, including scrap-based electric arc furnaces, which operate more efficiently.

As China looks to overseas markets to cope with domestic oversupply, its exports of cheaper steel products depress international prices and undercut other steelmakers' market positions and profits.

When China's steel industry experienced severe overcapacity in 2014-15, it exported 80% more steel products in 2015 than in

Figure 12

China has expanded its share in the global steel market at the expense of other producers
 Shares of the world's top five steel producers



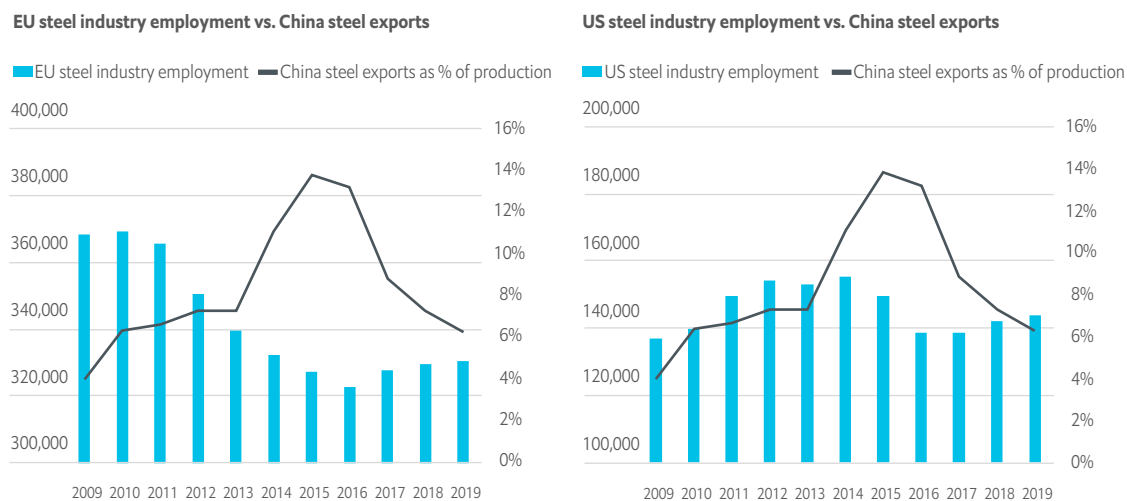
Sources: World Steel Association; The Economist Intelligence Unit.

2013, coupled with plunging steel prices. For example, its export price of hot rolled coil steel at the end of 2015 was less than half that in early 2013,¹²² putting downward pressure on international prices. As a result, non-Chinese steelmakers lost market shares and had weakened profitability, which was hurt by both lower market prices and underutilized capacity. In turn, this reduced investments and downsized production and employment.^{123,124} The EU's steel industry has been among those suffering the most. Between 2013 and 2016 nearly 17,000 jobs were lost, equivalent to 5% of the 2013 employment level.¹²⁵ At the same time, the US steel industry lost a tenth of jobs, totaling over 14,000, and the value it contributed to the economy decreased by 16% (Figure 13).¹²⁶

While low pricing of steel products is a curse to non-Chinese steelmakers, it can be a boon to downstream industries that utilize steel as an input. Because steel is one of the most flexible alloys that can be customized to meet different manufacturing needs, it is used in most manufacturing industries, including automotive, construction, electronics and machinery. Cheaper steel prices help reduce input costs for these manufacturers, and boost profitability. As a result, an economy where these downstream industries dominate the manufacturing sector could experience a net positive impact from cheaper steel imports. For example, in the US the downstream manufacturing industries added US\$1.252trn value to the economy in 2019—compared with the US\$31bn value added by iron and steel manufacturing—and

Figure 13

EU and US steel industry job losses during 2013-16 while China's steel exports surged
Direct employment in the steel industry in the EU and the US; China's steel exports as percentage of domestic production



Sources: The European Steel Association; US Bureau of Labor Statistics; The Economist Intelligence Unit.

accounted for more than half of the total value added by manufacturing.¹²⁷

Due to the massive production size of the Chinese steel industry and its overall relatively high energy and pollution intensity, curbing and upgrading its capacity has significant impacts on global energy consumption and the environment. As of 2017 the steel industry accounted for over 20% of China's industry energy consumption and over 10% of the country's total CO₂ emissions.¹²⁸

Even though China decreased energy intensity in the steel industry by 11.5% from 2006 to 2017 thanks to improved energy-saving technologies, it is still lagging behind the world's advanced level on energy efficiency in the industry.¹²⁹ The Chinese steel production industry also has higher carbon emission intensity, which is 1.5 times the level of Japan and twice that of the US.^{130,131} Under the administration of Mr Xi, the Chinese government has doubled down

on climate change actions and strengthened environmental regulations across sectors. In 2019 China's Ministry of Ecology and Environment released a directive intended to ensure steel mills meet "ultra-low" emission standards by 2025.¹³² However, whether relevant regulations can be implemented adequately on local levels remains questionable.

C. Semiconductors

Policy priorities and implementation

Although China is a major producer of electronic products, its domestic industry remains dependent on key component imports, including semiconductors. As of 2019 semiconductors, or integrated circuits (ICs), are China's largest industrial import as measured by value, accounting for roughly 15% of total merchandise imports. Meanwhile, Chinese domestic IC production meets less than 20% of local

demand.¹³³ Conscious of the country's reliance on imports, the Chinese government has stepped up efforts to develop the domestic semiconductor industry over the past two decades.

In 2000 the State Council implemented Policies to Encourage the Development of Software Industry and Integrated Circuit Industry,¹³⁴ outlining a range of financial and non-financial incentives to cultivate the domestic semiconductor industry. Since then, the government has continuously updated and strengthened their support for the domestic semiconductor industry. In 2010 the industry was listed as a priority area in the government's seven SEI plan (under the "next-gen information technology" sector). Most recently, in August 2020 the government announced Policies to Promote the High-quality Development of the IC Industry and Software Industry in the New Era, generally deemed to be a response to US export restrictions amid the China-US trade conflict.¹³⁵

As with other SEIs, the Chinese government provides various forms of strong support to domestic IC companies, including practices—such as state-backed investment funds, below-market financing and forced technology transfer—that critics believe have prevented a level playing field and distorted the market. In addition, the acquisition of foreign semiconductor technology through IP theft—which many believe is sponsored by the government—has also drawn growing concerns and criticism outside China.

The Chinese government has established **government GIFs** dedicated to supporting domestic IC companies. According to an OECD study covering 2014-18, while state investment vehicles also exist in other economies, China is unique in using them to target semiconductors specifically, with the explicit aim of cultivating national champions that can compete globally.¹³⁶

As of 2019 the funds backed by both central and local governments amounted to over Rmb700bn (US\$106bn) in total. The Ministry of Finance, together with the State Development & Investment Corporation, China Tobacco Corporation, and China Mobile—alongside other local governments and SOEs—launched the National IC Industry Investment Fund. Phase I and Phase II were, respectively, launched in 2014 and 2019, raising Rmb138.7bn (US\$21bn) and Rmb204.2bn (US\$31bn).¹³⁷ At local levels, as of 2018, 17 provincial or municipal governments had established IC funds, with total capital commitments exceeding Rmb400bn (US\$60bn).¹³⁸ Through equity investment, these funds play a pivotal role in backing indigenous IC companies to acquire foreign companies and technologies and expand production capacity.¹³⁹

For example, with funding support from the National IC Fund, Jiangsu Changjiang Electronics Technology (JCET) acquired Singapore-based STATS-ChipPAC in 2015 and became one of the world's largest outsourced assembly and testing firms. These government funds also target capital-intensive fabrication facilities (often referred to as fabs or foundries), which manufacture ICs by etching microscopic electronic circuits onto silicon wafers. Today, a new semiconductor factory is estimated to cost at least US\$7bn to build and requires ongoing improvements, incurring future capital expenditure.¹⁴⁰

Through such investments, the National IC Fund and Chinese SOEs together hold more than 25% of at least half of China's top ten IC companies.¹⁴¹ Because of the state's substantial involvement and a general lack of transparency, China's IC investment funds are labeled as disguised government subsidization by some critics. OECD's study of 21 international semiconductor firms between

2014 and 2018 found that Chinese firms together received 86% of total “below-market equity” (ie, effective subsidies).¹⁴²

In addition to the investment funds, critics point to **preferential loans** provided by Chinese development and commercial banks to indigenous IC companies as another market-distorting practice. During 2014–18 Chinese IC industrial players—including Tsinghua Unigroup, SMIC and JCET—received nearly US\$5bn of below-market financing. Notably, this financing was via loans provided by Chinese state banks including the Bank of China, the China Development Bank and the China Construction Bank.¹⁴³

While bolstering indigenous innovation and capacity in the semiconductor industry, the government also encourages foreign companies to establish production and business facilities in China. However, many foreign investors reported having been **compelled to form JVs with local companies and transfer IC technology**. According to a 2017 survey conducted by the US Department of Commerce, 25 American semiconductor companies—which generated over US\$25bn in combined annual sales—had been required to form JVs and transfer technology in exchange for market access in China.¹⁴⁴ A 2020 report from the US-China Economic and Security Review Commission of the US government pointed to such “coercive policies” as a reason for US multinational corporations (MNCs) moving IC production to China over the past two decades. The same report found that the value added by the US MNCs affiliated in China for semiconductor and other electronic components increased over 250% from 2009 to 2017.¹⁴⁵

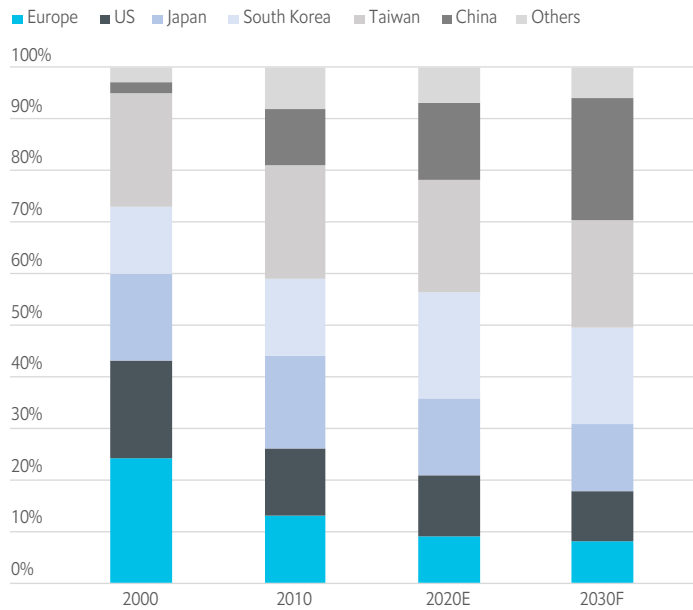
This is also among the industries where **IP theft** by Chinese companies has been most often reported. For example, in 2016 a Taiwanese engineer working for TSMC stole trade secrets with the intention of selling them to a Chinese state-owned company.¹⁴⁶ More recently, in June 2020 the US Department of Justice found Chinese national Hao Zhang guilty of economic espionage and theft of trade secrets from two US-based semiconductor companies.¹⁴⁷ In addition, since the US imposed export restrictions on Chinese tech companies, cybersecurity experts have reported an escalation of cyber-attacks and attempted intrusions at US technology companies.¹⁴⁸ As a result, some critics have gone as far as calling IP theft as an “essential pillar of Chinese strategy to develop its semiconductor industry”.¹⁴⁹

The recent supply-chain disruption caused by the US’s sanctions on Chinese technology companies has refreshed the Chinese authorities’ concerns over reliance on foreign technology and semiconductor supply and the threat to national security. As such, the government is likely to continue with current policies and practices and double down on its support for domestic semiconductor industry.

Impact analysis

Thanks to government support, China’s semiconductor industry has experienced substantial growth in the past decade, notably in IC manufacturing. According to IC Insights, an industry consultancy, in 2010–19 China’s domestic IC production more than tripled in value terms and accounted for nearly 16% of domestic IC demand as of 2019—up from 10% in 2010.¹⁵⁰ In particular, the number of domestic foundries increased from eight in 2015 to 24 in 2019.¹⁵¹ In the

Figure 14
China has outpaced Europe, the US and Japan on IC manufacturing capacity
 Global semiconductor manufacturing capacity by location



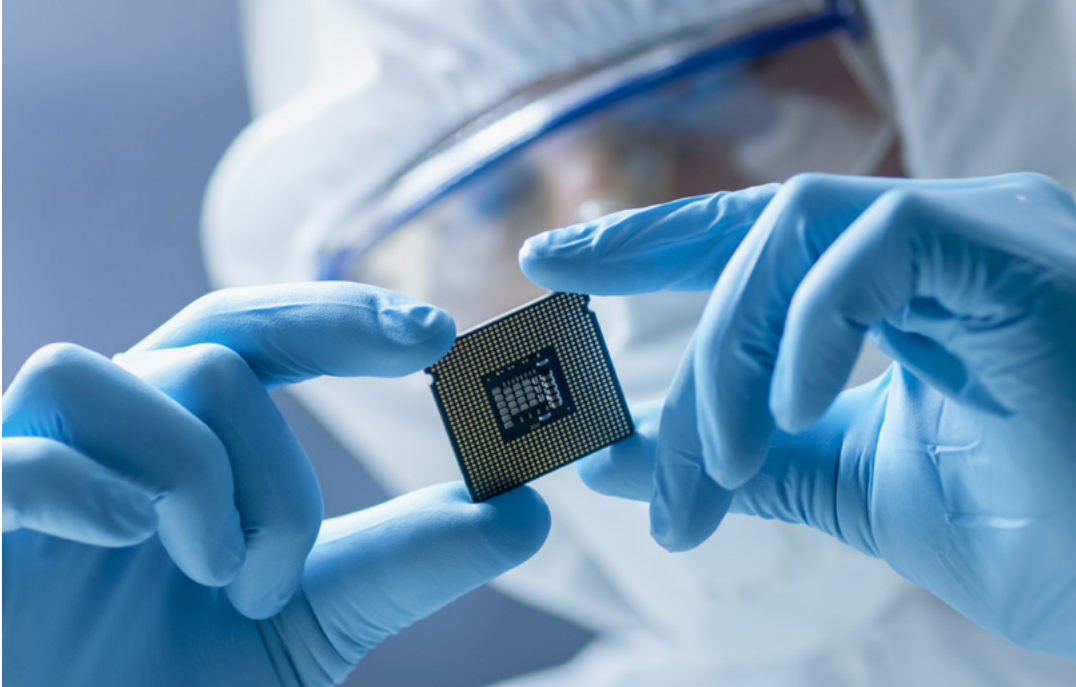
Sources: Boston Consulting Group; The Semiconductor Industry Association; The Economist Intelligence Unit.

meantime, China remains highly dependent on imports of specialized machinery used in IC manufacturing, and make only 2% of the world’s semiconductor fabrication and test equipment.¹⁵² As such, globally traditional IC-supplying economies are losing market share to China, while suppliers of specialized machinery for semiconductor manufacture are experiencing strong revenue growth driven by China’s investment in expanding IC production capacity.

China has expanded its share in the global IC market at the expense of traditional IC-supplying markets, including Europe, the US and Japan. Between 2010 and 2019 China’s share of global semiconductor manufacturing capacity rose from 11% to 15%, while traditional IC-supplying markets (except South Korea and Taiwan) experienced

a decline in their respective shares (Figure 14). A similar trajectory is observed in IC exports. While remaining a net importer of ICs, China more than doubled its share of global IC exports from 7% in 2010 to 15% 2019—the largest gain among IC exporters. In the same period, other countries, including Singapore, the US and Japan, saw their shares shrink.¹⁵³ Correspondingly, China’s share in the value added of the global semiconductor industry (including design, manufacturing and assembly, and testing) grew from 19% in 2010 to 31% in 2016 (the most recent year for which data are available). Meanwhile, the share of the US decreased from 25% to 22%, Japan from 18% to 8%, and the EU from 7% to 5%.¹⁵⁴

The semiconductor manufacturing capacity growth in China has been partly driven by investments from MNCs, suggesting



potential economic losses where offshoring of manufacturing facilities occurred—such as the US. According to Boston Consulting Group, a new, standardly sized fab creates 3,000 to 6,000 direct jobs, with multiplier effects on the local economy.¹⁵⁵ In the US, a semiconductor manufacturing worker on average earned US\$166,400 in 2019—more than double the average for all US manufacturing workers.¹⁵⁶ As such, establishing a new fab in the US can generate roughly US\$500m-1bn in incomes every year.¹⁵⁷

At the company level, Chinese-owned firms pose a limited threat to the market positions of the current global leading players, due to major technology gaps.

Chinese companies generally remain a generation or two behind global leaders in semiconductor development. For example, in manufacturing the most-advanced logic chips, the Chinese SMIC, which now ranks among the world's top five foundries, are conducting scale production at the 14 nanometers (nm)

level, while Samsung (South Korea) and TSMC (Taiwan) lead scale production at the 5nm level.¹⁵⁸ In fact, TSMC, which accounts for half of global fabrication revenue, has benefited from the rapid growth of the Chinese market. In 2019 the Chinese market made up 19% of TSMC's total revenue, up from below 5% one decade ago. During 2015-19 TSMC's annual revenue in China grew threefold, compared with a 51% rise in China's overall IC market.¹⁵⁹

However, as Chinese companies ramp up production in less advanced ICs, the risk of overcapacity is growing, which could dampen profit margins of producers in relevant segments.

In August 2020 the central government announced a set of corporate income tax breaks and reductions to companies across the value chain of the IC industry. The most preferential treatment is granted to companies producing ICs at 28nm—or smaller than 28nm. As long as these firms have been established in China for more than 15 years, and regardless of ownership,

they are eligible for corporate income tax exemption for ten years.¹⁶⁰ With such incentives, some Chinese industrial experts expect that China will become self-sufficient in 28nm chips in two years, while international industrial experts have already been warning of an oversupply of 28nm chips.¹⁶¹

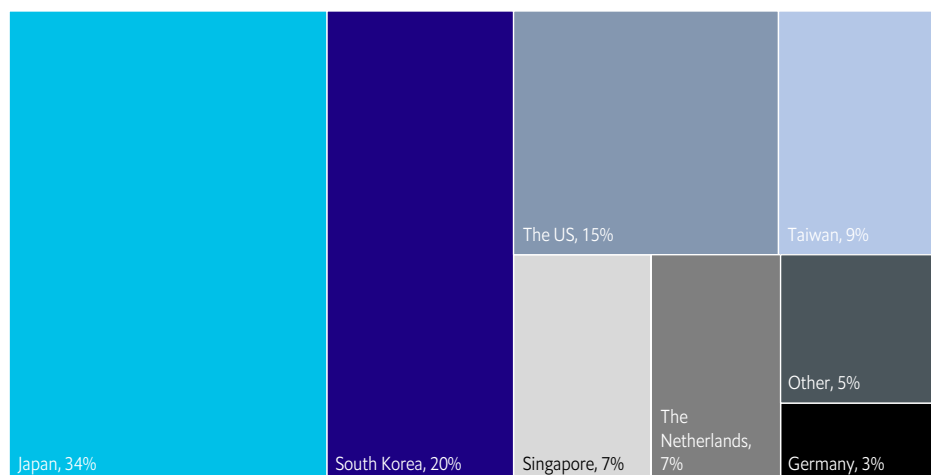
China's aggressive investment in IC manufacturing facilities have boosted the demand for specialized machinery, making China a major driving force of revenue growth for international machinery suppliers. China added 21% of the world's new semiconductor manufacturing capacity in 2010-20. And it is projected to add over 40% more over the next decade, 60% of which will be invested by Chinese-owned companies.¹⁶² In the meantime, China is highly dependent on imports of specialized machinery used in IC manufacturing, and some industry experts also predict that China is unlikely to have a viable indigenous equipment industry in the next decade due to technical gaps.¹⁶³

Global machinery suppliers have seen surging demand from the Chinese market. Between 2015 and 2019 China imported

US\$103.5bn of machines and apparatus for IC manufacturing—primarily from Japan, South Korea, the US and Western European countries (Figure 15)—nearly doubling its imports during the previous five years (2010-14). By comparison, in the same period, imports by the rest of the world grew by only 32%.¹⁶⁴ According to SEMI, an industry association, global sales of semiconductor manufacturing equipment by OEMs are expected to register a record high in 2020 and continue growing in 2021-22, with China as a leading force in capital spending.¹⁶⁵

Because the global equipment market is highly concentrated in a small number of suppliers, the leading players are well positioned to gain from the growth of China's semiconductor industry, including Applied Materials (the US), Lam Research (the US), KLA (the US), ASML (the Netherlands), and Tokyo Electronics (Japan).¹⁶⁶ While these equipment suppliers could gain substantial customers, exposure to China's market and risk arising from the country's geopolitical tensions with major economies like the US are also rising.

Figure 15
 Breakdown of suppliers for China's imports of machines and apparatus for manufacturing semiconductors, 2015-19



Sources: International Trade Centre Trade Map; The Economist Intelligence Unit. Based on HS code 8486.

D. Biopharmaceuticals

Policy priorities and implementation

A relative latecomer to the global biopharmaceuticals (“biopharma”) industry, China is striving to play catch-up, driven by strong state support. The Chinese government regards the development of biopharma, alongside other biotechnology, as critical to promoting public health and ensuring health security. With the world’s largest population and rapid demographic aging, China—already the world’s second-largest pharmaceutical market—is experiencing continuous growth in pharmaceuticals demand. Annual sales of drugs in China are expected to rise 8.4% on average each year in 2021-25.¹⁶⁷ In addition, high incidence of cancer and diabetes in China has driven demand for relevant therapeutics—many of which are biologic. As foreign companies, including major multinational drug-makers, supply virtually all in-patient innovator drugs, the Chinese government is keen to develop homegrown and affordable innovative biomedicine in order to reduce reliance on imported drugs and foreign patents.¹⁶⁸

As such, the government has taken a top-down strategy to propel the country to become a major global biopharma competitor. Since 2010 biotechnology, including biopharma, has been named as an SEI and included among key priorities for industrial development in the 13th FYP and the Made in China 2025 blueprint. The latest 14th FYP further reiterated the strategic importance of biomedicine and life sciences alongside other SEIs. In addition to the typical policy tools used to support SEIs, the government has undertaken a series of reforms to deregulate the pharmaceutical industry, benefiting the development of biologics innovation, although some have been criticized for favoring domestic companies over foreign competitors.

As with semiconductors and other SEIs, the Chinese government has supported domestic biopharma development by **investing through government GIFs** and **cultivating industrial parks and clusters**, among other efforts. For example, seven out of the 20 largest government guidance funds identify healthcare (including biopharma) as a key focus sector.¹⁶⁹ Among the 66 national SEI clusters announced by the NDRC in 2019, 17 are dedicated to biopharma.¹⁷⁰ In addition, from 2016 to 2020 the number of biotech science parks grew 50%—from about 400 to about 600—and their output’s total value has grown by more than 80% in that time.¹⁷¹

The biopharma industry has also benefited from a series of **industry deregulation reforms** in China since 2015. One of the key reforms was undertaken in 2016 to introduce the Market Authorization Holder (MAH) system, which allows domestic biologics and other drug developers to hold the manufacturing license even if it is outsourced. The MAH system particularly benefits small innovators, enabling them to allocate more resources to drug innovation, while boosting the domestic development of contract manufacturing services.¹⁷²

To provide incentives to drug innovation, the authority has taken **action to expedite drug approvals** and shown **good will to strengthen market protection**. However, there has been criticism that domestic biologics companies are being favored. In 2016 the China Food and Drug Administration (CFDA) introduced fast-track reviews for certain innovative drugs, but it is only applicable to drugs not previously approved outside of China or when manufacturing will be transferred to China.¹⁷³ Moreover, in 2018 the CFDA released a draft Measures for Implementation of Drug Trial Data

Protection (Interim). According to the draft, innovator biologics will receive up to 12 years of protection of their clinical trial data (also known as the data exclusivity period)—on par with the level of protection granted in the US and the EU. However, only biologics that have clinical trials conducted in China and are not approved in other countries are eligible for the maximum protection.¹⁷⁴ Since the draft release for public comments in 2018, the CFDA has not announced any updates.

Regardless of the controversial proposal, **weak IP protection**—as manifested in data protection—has long been a contentious issue between China and its trading partners. China has been criticized for not fulfilling the commitment of the six-year data exclusivity period provided in the Implementation Regulations of the Drug Administration Law.¹⁷⁵ For example, the EU Chamber of Commerce has criticized the Chinese authority's approval of several generic drugs in 2019, which were applied for by Chinese companies. According to the organization, those generic drugs should not have been approved because the originator drugs had only received approval in China two to four years prior, hence still within the data exclusivity period and entitled to the data protection.¹⁷⁶ In addition, the Chinese government has also been accused by the US and other countries of backing **IP theft** in order to advance its biopharma industry. One high-profile example is the Thousand Talents Program, with which the US government claims that the Chinese government attempts to lure scientists to bring foreign IP to China.¹⁷⁷ The Chinese government has repeatedly refuted the accusation, believing the US has exaggerated the problem for political reasons.¹⁷⁸

While state support has contributed to the rapid growth of China's biopharma industry over the past decade, it remains small: the overall biotech industry in China is estimated

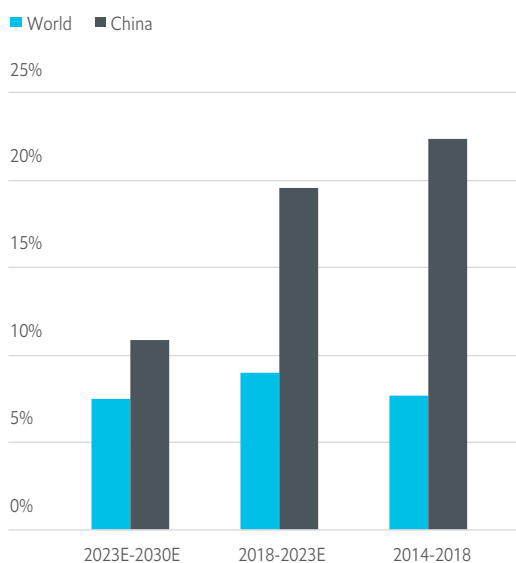
to be less than a tenth of the US's in terms of market size.¹⁷⁹ Given the growing policy focus on self-reliance under the "dual-circulation model", the government is likely to sustain its strong support for the domestic biopharma industry in order to reduce import dependence while building its long-term competitive edges in the global trade.

Impact analysis

With a large domestic market that is full of potential and growing in size, China is set to play an increasingly important role in global biopharma. The Chinese biopharma market is expected to grow at an annual average rate of nearly 20% in 2018-23 and over 10% in 2023-30—outpacing the rest of the world (Figure 16) and exceeding Rmb1.3trn (US\$200bn) by 2030.¹⁸⁰ Thanks to sustained government support, among other factors including private-sector investment and talent development, China's domestic biopharma industry has expanded steadily. According to Boston Consulting Group, from 2010 to 2020 more than 140 new biopharma companies emerged in China, while other major markets, including the US, Europe and Japan, experienced a decline in new biopharma company formation during the same period.¹⁸¹ Domestic biomedicine development and production are also increasing. For example, the number of applications for biologics clinical trials reached 30-40 annually in the past few years, compared with fewer than ten each year before 2013.¹⁸²

Despite this progress, China's biopharma industry remains relatively nascent and has large gaps to close with global leaders, particularly on innovative therapeutics development.¹⁸³ In the meantime, China has established an industrial foundation for lower-value biologic products, such as

Figure 16
China's biopharma market grows faster than the rest of the world
 Compound annual growth rate of market size



Sources: Frost & Sullivan; The Economist Intelligence Unit.

biosimilars, and made breakthroughs in certain areas, such as new vaccines. As a result, they are beginning to challenge market positions of MNCs in these fields—first in China and, longer term, internationally. In addition, China is also rising as an attractive destination for outsourcing biopharma research, development and manufacturing services, which in turn could have far-reaching implications for global supply chains.

In light of a booming market, Chinese biopharma companies are seeking to capture the opportunity: challenging market positions of MNCs operating in China. Biosimilars, akin to generics of traditional pharmaceuticals, are “similar” to a biologic medicine that is already manufactured by a different company. These can be manufactured once the original

product's patent has expired. Globally, the majority of biosimilars are still in pre-clinical development, with few marketed. However, as patents of several major originator biomedicines have expired in the past several years, the global biosimilar market is expanding fast. According to Frost & Sullivan, a business consulting firm, in 2018-23 the biosimilar market has an expected compound annual growth rate of roughly 41% worldwide and over 74% in China.¹⁸⁴

Globally, North America is leading with over 600 biosimilars under development, followed by Europe with around 470.¹⁸⁵ While lagging somewhat, Chinese companies are developing around 250 biosimilars¹⁸⁶ and have made notable progress in recent years. In 2019 Henlius Biotech received approval from Chinese authorities for a copy of Roche's Rituxan (a monoclonal antibody).¹⁸⁷ This was China's first homegrown biosimilar and is priced 30% cheaper than the original.¹⁸⁸ Since then, at least a dozen other Chinese biosimilars have received approvals, referencing Roche's Herceptin (for breast cancer treatment), Genentech's Avastin (for treating various types of cancer) and AbbVie's Humira (for treating arthritis and other diseases), alongside Rituxan.¹⁸⁹

While taking on holders of the original innovator drugs, the rising Chinese biosimilars are competing with MNCs interested in selling biosimilars in the Chinese market. For example, facing an increasingly crowded biosimilar market in China, in March 2021 Pfizer decided to sell a manufacturing facility in Hangzhou. Although it was established to produce biosimilars of Avastin, Herceptin and Humira, Pfizer said that “none [of the products] reached the level of activity for the scale of the site.”¹⁹⁰

One of the few areas where Chinese biopharma companies are breaking MNCs' monopolies is new vaccines, as

leading Chinese vaccine makers have developed more affordable alternative products—pressuring MNCs' profitability.

The Chinese vaccine market is relatively fragmented, shared by 45 producers including 11 state-owned enterprises, 30 local private enterprises and four MNCs as of 2018. The latter two groups hold two-thirds of the market and are the primary suppliers for Class 2 vaccines.¹⁹¹ This is a category that has experienced fast growth, driven by new products such as the HPV (human papillomavirus) vaccine and PCV (pneumococcal conjugate vaccine).¹⁹² While MNCs are dominating the new vaccines market, a couple of Chinese companies have advanced into this area, competing with more affordable products. In January 2020 Chinese authorities approved the first domestic bivalent HPV vaccine, which was produced by Inovax. This cost only 57% of GSK's bivalent HPV vaccine, 40% of Merck's 4-valent vaccine and 25% of Merck's 9-valent vaccine. In the same month, another Chinese company, Walvex Biotechnology, received approval for 13-valent PVC, breaking Pfizer's monopoly on this product.¹⁹³

In addition, the Chinese government's recent success in promoting covid-19 vaccines internationally could inspire domestic vaccine makers to go abroad. Globally, vaccine manufacturing is highly concentrated, as four large American and European manufacturers—GSK, Pfizer, Merck and Sanofi—control 90% of the vaccine market in value terms.¹⁹⁴ In addition, India manufactures more than 60% of all vaccines sold around the world.¹⁹⁵ Not until the covid-19 pandemic—during which China claimed to have received orders of 500m doses of covid-19 vaccines from 19 countries—has China achieved much success in the international vaccine market.¹⁹⁶ To date, among 158 vaccines that are prequalified

by the World Health Organization, Chinese companies account for only five—compared with 53 by Indian companies.¹⁹⁷ Unfamiliarity with international procurement rules, obstacles to obtaining international certification, low margins of procurement prices, among other factors, are often cited by Chinese vaccine makers as reasons for their lack of international presence.¹⁹⁸

In light of China's successful development and distribution of covid-19 vaccines overseas, the interest and confidence in exploring international vaccine markets appears to be growing within the Chinese industry.¹⁹⁹ Should that happen, Chinese companies would probably start with major recipients of Chinese covid-19 vaccines, including countries in Africa, Latin America and the Middle East, and compete with incumbent suppliers from India, Europe and North America.

In parallel to the rising Chinese biopharma industry are fast-growing contract research and manufacturing services at home, making China an increasingly attractive outsourcing destination for companies outside the country.

It is a common practice for pharma, including biopharma, companies to outsource preclinical or clinical development and production in various scales based on technical and commercial needs. Globally, the market for contract research organizations (CROs) and contract development and manufacturing organizations (CDMOs) are expected to continue to grow rapidly, driven by the greater willingness of pharma companies to use outsourcing services to shorten time to market, save costs and optimize resource allocation.²⁰⁰

While North America remains the world's largest hub for CROs and biopharma manufacturing capacity,²⁰¹ China has been catching up—thanks in part to the introduction of the MAH system in 2016 and increased investments in developing innovative

therapeutics domestically. As of October 2020 China has the world's largest biopharma manufacturing capacity outside North America and Europe, with 237 bioprocessing facilities that account for 11% of the total manufacturing capacity when combined (Figure 17).²⁰² As of 2017 around 400 CROs, equivalent to roughly 35% of the world's total, were located in China.²⁰³ In addition, international companies have traditionally chosen Chinese services for benefits such as lower costs, access to a large scientific and research talent pool, and easy and cost-effective patient recruitment for preclinical or clinical research, among others.²⁰⁴

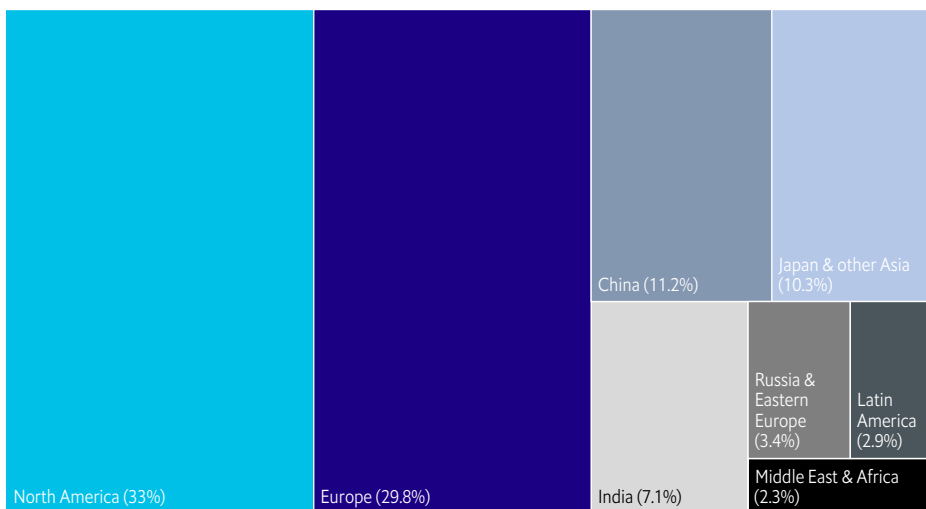
Prior to the covid-19 pandemic, major Chinese companies had experienced business growth from overseas markets. For example, two-thirds of revenue for WuXi Biologics, the largest Chinese CDMO, came from international clients in 2019. In particular, its revenue from North American and European clients grew by 66% and 81% from 2018, respectively, compared with 44% from domestic clients.²⁰⁵ Another leading CDMO,

Asymchem Laboratories, reported 35% growth in revenue from overseas markets in the same year.²⁰⁶

Since the covid-19 pandemic, China has also seen an increase in external demand for outsourcing services as other countries, particularly in North America and Europe, are struggling to help business activities return to normal. According to the Ministry of Commerce, in 2020 China provided offshore outsourcing services for foreign biopharma and biotech companies creating a total value of Rmb48.8bn (US\$7.5bn), up 13% from 2019.²⁰⁷

If interest from international biopharma in China's outsourcing services sustains, there could be far-reaching shifts within global supply chains. In particular, economies that previously hosted such services and manufacturing activities could see dampened GDP growth and job creation, as well as political debates over supply-chain security and its link to national security.

Figure 17
Distribution of biopharma manufacturing capacity in 2020



Sources: BioPlan; The Economist Intelligence Unit.

E. Financial services

Policy priorities and implementation

China has a vast, fast-growing financial sector. Its banking industry ended 2020 with Rmb319.7trn (US\$49trn) in assets—the largest in the world.²⁰⁸ The Chinese insurance market registered a total premium income of Rmb4.5trn (US\$689bn) in 2020, placing it second globally after the US.²⁰⁹ In addition, the Shanghai and Shenzhen stock exchanges are both ranked among the world's top ten stock markets. In the meantime, as the financial sector remains relatively small relative to the overall Chinese economy, it is expected to grow fast in the foreseeable future, partly driven by the rising middle class. While foreign companies have long been eager to tap into China's rapidly expanding financial markets, they have historically faced substantial entry barriers, resulting in limited presence. Over the past three years the Chinese authorities have made strides in opening up the financial market, especially by removing foreign ownership limits. However, significant barriers remain in the licensing scheme, cybersecurity and data flow regulations, among others, inhibiting foreign financial institutions (FIs) from entering or expanding in the Chinese market.

China's financial opening jumpstarted after Mr Xi's pledge of opening the economy further to foreign investment at the Boao Forum for Asia in April 2018.²¹⁰ Although the promise was made against the backdrop of escalating China-US trade disputes, it was not a pure concession to external pressure but driven by China's own interest. In light of domestic economic slowdown, rising protectionism globally and manufacturing shifting to countries with lower costs, the Chinese authorities are keen to balance out the negative impact these factors have on FDI by opening up the financial sector to attract stronger capital inflows. In addition to bringing more capital, greater participation of

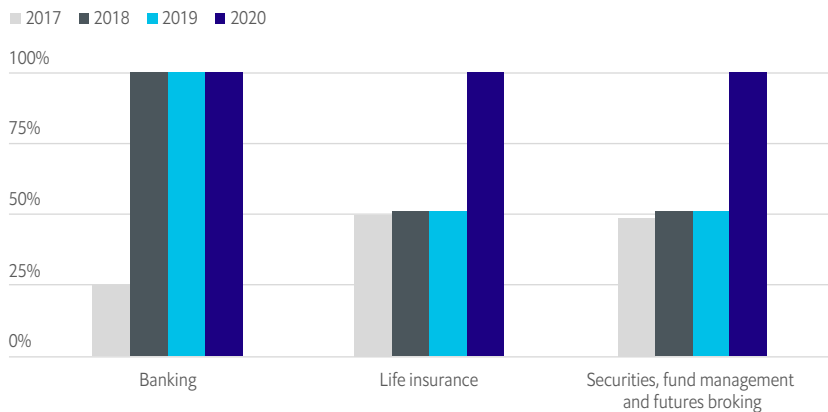
foreign FIs in the market is also instrumental to enhancing capital market maturity and meeting demand from domestic consumers and investors for better and more diverse options of financial products.

Since 2018 the Chinese government has taken substantive actions to increase accessibility of the domestic financial market to foreign companies. In particular, the authorities **lifted the limits of foreign ownership in FIs** located in China, across banking, insurance, securities, funds and futures businesses. For example, as of 2017 foreign investors could hold up to only 25% of a JV bank in China, 50% of a JV life insurance company and 49% of a securities company. By the end of 2020 all foreign ownership restrictions across financial industries were abolished (Figure 18). In addition, Chinese authorities also relaxed other market entry regulations, including removing minimum asset requirements for foreign banks to establish an entity in China, lifting the requirement for foreign insurers to have at least a 30-year business track record, and phasing out business scope restrictions for JV securities companies, among others.²¹¹

As a result, China has seen significant improvement in its FDI Restrictiveness Index in the financial sector, as measured by the OECD. The index value for China more than halved from 0.56 in 2017 to 0.24 in 2019 (the latest available), albeit remaining significantly higher than the OECD average at 0.032.²¹²

Despite the financial opening, foreign FIs continue to face various administrative and regulatory barriers to entering or expanding in the market. In 2020 the China Finance 40 Forum (a major Chinese think-tank) conducted a study on foreign FIs' sentiments of market barriers in China based on policy recommendations made by the American Chamber of Commerce in China, EU Chamber of Commerce in China, and Japan External Trade Organization in their annual reports.

Figure 18
 China lifted all foreign ownership limits in the financial sector by 2020
 Foreign ownership cap in Chinese financial industries



Note: The figure only includes industries where certain foreign ownership limits were in place as of 2017. For example, property and casualty insurance is not shown because foreign ownership limits had been removed long before 2017.

Sources: Ministry of Commerce; The Economist Intelligence Unit.

The study revealed that in 2020 85% of the policy recommendations were related to licensing scheme and regulatory barriers, up from 78% in 2018, while only 10% of the policy recommendations were focused on unfair treatment of foreign investors stipulated in legal and policy frameworks, a significant improvement from 17% in 2018.²¹³

Administrative barriers in the licensing regime have been a significant hurdle for companies interested in entering the Chinese market. Take the insurance sector, for example. An insurance firm must apply for a separate license in each individual province, with only one application being processed at a time. According to the EU Chamber of Commerce's estimate, it takes about one year for the Chinese Banking and Insurance Regulatory Commission to issue just one license. Consequently, foreign insurance providers that intend to offer services in even just a third of the country would need at least a decade to

acquire the necessary license approvals.²¹⁴ In addition, foreign insurers have also reported a lack of transparency and delays in the approval process.²¹⁵

Regulatory barriers such as **growing regulations on cybersecurity and data transfer** also pose greater operational risks and costs for foreign FIs, deterring them from entering the market. The Cybersecurity Law (CSL), effective in June 2017, outlines general compliance requirements covering a wide range of issues, including data localization and cross-border data transfer.²¹⁶ Following the enactment of the CSL, Chinese authorities have been undertaking intensive legislative and regulatory developments. While major implementation policies are yet to be finalized, drafts of two regulations released in 2019 to solicit public comments included stringent and detailed requirements on cross-border transfer of personal information and important data.^{217,218} Although not

specifically targeting foreign companies, these forthcoming regulations have raised concerns that they will disproportionately affect international companies and pose strong operational burdens due to their high frequency of cross-border data transfer operations in response to requests from their headquarters outside China, among other reasons. Restrictions on the free flow of data can also break multinational FIs' operational models, limiting their ability to provide core products and services and manage risk.²¹⁹

Chinese policymakers have acknowledged the challenges foreign FIs continue to face in licensing and regulatory schemes and shown a good will to address them. At a financial summit in Shanghai in October 2020, Yi Gang, governor of the PBC, stated that "Although China's financial sector is opening up rapidly ... foreign investors still need to apply for various licenses, face many operational problems ... indicating that there is still a lot of work to be done."²²⁰ Despite the good will, it remains to be seen what further actions the authorities may take to reduce barriers.

Impact analysis

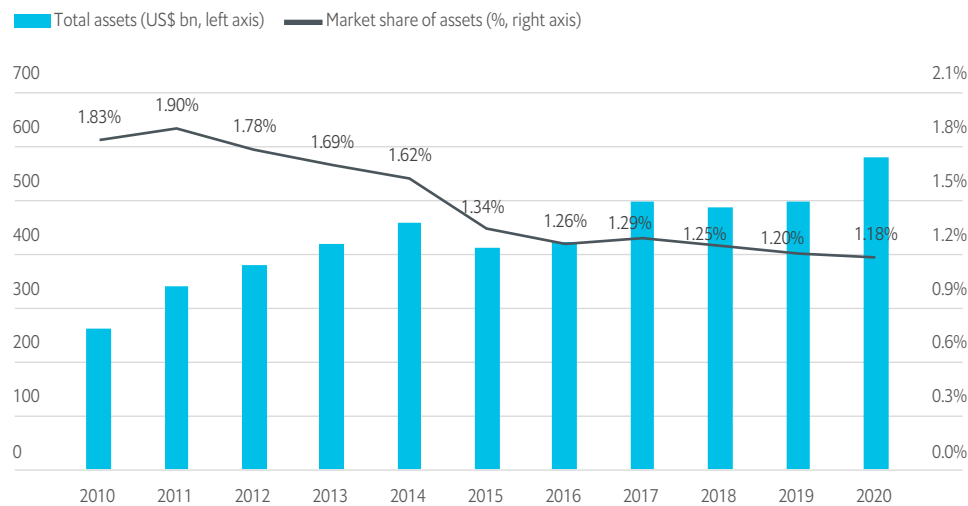
Thanks to various market entry barriers, particularly historical ownership restrictions, foreign FIs have had limited presence and influence in the Chinese market to date. As of 2019 they accounted for a minimal 1.2% of total assets and 0.9% of total net profits in China's banking industry.²²¹ While their combined shares in the Chinese insurance market is higher—7.2% of total premium incomes in 2019—few foreign insurers have made it into the top 20.^{222,223} In addition, among the top 25 asset managers, five are JVs involving foreign FIs, accounting for only 15% of the total assets.²²⁴ Nonetheless, China's recent financial opening has provided impetus for foreign FIs to enter the market or scale up operations. However, the opportunity is

uneven across financial segments. They are likely to face greater opportunities in areas where the market remains underserved or less penetrated—such as insurance and asset management—than in others where the market is highly concentrated in Chinese incumbents, such as commercial banking.

Foreign banks face stiff competition from state-controlled or -invested banks and technology giants when penetrating the Chinese market. Today, there are over 4,000 commercial banks in China, which together hold over 80% of banking industry assets. The commercial banking industry is highly dominated by state-controlled or -invested banks. The six largest state-controlled banks accounted for 47% of all commercial bank assets in 2019, with 12 national joint-stock banks holding an additional 21%.²²⁵ In the meantime, since the first four foreign banks—including HSBC Holdings, Citi, Standard Chartered and the Bank of East Asia—established subsidiaries in China in 2007, an increasing number of foreign banks (41 as of 2020) have established operations in China. However, expanding their market shares has been a struggle. Between 2010 and 2020, while the total assets of foreign banks in China rose from Rmb1.74trn (US\$263bn) to Rmb3.48trn (US\$579bn), their shares in the banking industry's total assets dropped from 1.8% to 1.2% (Figure 19).

The financial opening provides a new option for foreign banks to purchase a controlling stake in domestic banks to scale up their operations. However, they may find it challenging to acquire stakes in state-controlled or state-invested banks given these banks' massive equity sizes and likely reluctance to give up their controlling stakes. While smaller local banks—such as in tier 3 or 4 cities or rural areas—may be willing to sell stakes, their businesses tend to entail higher financial and compliance risks.²²⁶

Figure 19
Foreign banks have seen market share decline in China since 2010
 Total assets (US\$ bn); share of total assets in the banking industry



Sources: China Banking and Insurance Regulatory Commission; EY; The Economist Intelligence Unit.

In addition, foreign banks are facing fierce competition from unconventional players in retail banking, a consumer-oriented segment of commercial banking that has grown rapidly in recent years owing to household lending. Financial technology (fintech) firms emerging out of the ecommerce industry—such as Ant Group (affiliated with Alibaba) and WeChat (affiliated with Tencent) have made headway on consumer-oriented financial products in payment, lending and wealth management businesses, seizing market shares from both Chinese and foreign banks.

The financial market opening enables foreign insurers to tap into the massive growth potential in China’s insurance market. Although China has the world’s second-largest insurance market, its insurance penetration (measured by premium incomes as a percentage of GDP) stood at just 4.4% in 2019, remaining significantly lower than the

levels in many advanced economies and other Asian countries. In comparison, insurance penetration is 6.5% in the US, the world’s largest insurance market, and 8.2% and 10.9% in Japan and South Korea, respectively.²²⁷ As such, the Chinese insurance market has massive room for growth.

Although foreign insurers currently possess a small share in the Chinese market (Figure 20), their businesses have seen notable growth in recent years. Between just 2018 and 2019 foreign insurers’ total premium income grew by nearly 30%, outpacing the growth of Chinese insurers at 12.2%. In addition, in more advanced regional markets such as Beijing and Shanghai, their market shares have already exceeded 20%.²²⁸

Major international insurers that are eager to expand operations in China have moved quickly to take advantage of the relaxed

market entry regulations—mainly by establishing fully owned companies and acquiring remaining stakes in JVs. In November 2019 Alliance (Germany) received approval from the Chinese authorities to commence operation of China's first fully foreign-owned insurance holding company.²²⁹ One month later AXA (France) completed the acquisition of the remaining 50% stake in AXA Tianping Property & Casualty Insurance Company from its domestic stakeholders, becoming the largest fully foreign-owned P&C insurer in China.²³⁰ In May 2020 HSBC Insurance (Asia) entered an agreement to acquire the remaining 50% equity stake in HSBC Life Insurance—its life insurance JV in China.²³¹

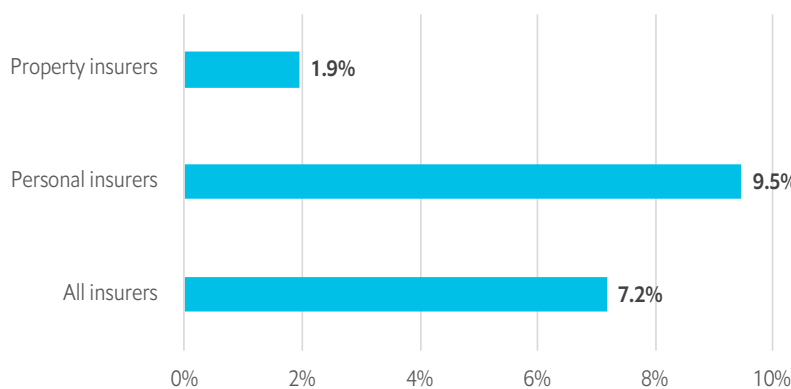
Asset management is another area that has vast potential opportunity for foreign FIs.

According to the Deloitte Center for Financial Services, by 2023 China's total addressable retail financial wealth will exceed US\$30trn, with US\$3.4trn in retail assets under management in Chinese publicly registered funds—representing a sizable market for asset managers.²³² Moreover, in light of a looming

retirement savings deficit and shortfall in the state-run basic pension scheme, the Chinese government has taken steps to encourage greater utilization of enterprise-led supporting pension (including corporate and occupational annuities) and commercial pension insurance.²³³ As a result, the demand for a more diversified portfolio of commercial pension products is likely to present opportunities for innovation, particularly by foreign investors.

Foreign asset managers have been looking to scale up their presence following the government's pledge to open up the financial sector. In 2016 JPMorgan Chase (US) was granted a license to operate a fully owned asset-management firm under a 20-year permit in Shanghai's free-trade zone. Bridgewater Associates and BNY Mellon (both US), UBS (Switzerland) and Fullerton Fund Management (Singapore) gained similar approvals in 2016-17. In August 2020 BlackRock obtained regulatory approval and became the first global asset manager to set up a mutual fund business unit in China.²³⁴

Figure 20
Foreign insurers possess a small share in the Chinese insurance market
Share of foreign insurers in premium incomes by type of insurance, 2019



Note: personal insurers cover life insurance, health insurance and endowment policy.
Source: Economist Intelligence Unit estimates.

IV. Economic and trade policy outlook

Moving forward, China will undergo a slowdown in domestic economic and productivity growth while facing increasingly unfavorable geopolitical and trade environments externally. Within this context, the Chinese government will continue to focus on indigenous innovation, self-reliance, national security and market opening in the short to medium term. However, China's trade policies and practices will become increasingly complex. The focus on national security will overshadow the likelihood of radical market reform. In addition, the Chinese authority is likely to increasingly leverage trade in geopolitical tensions while doubling down to secure diverse import sources.

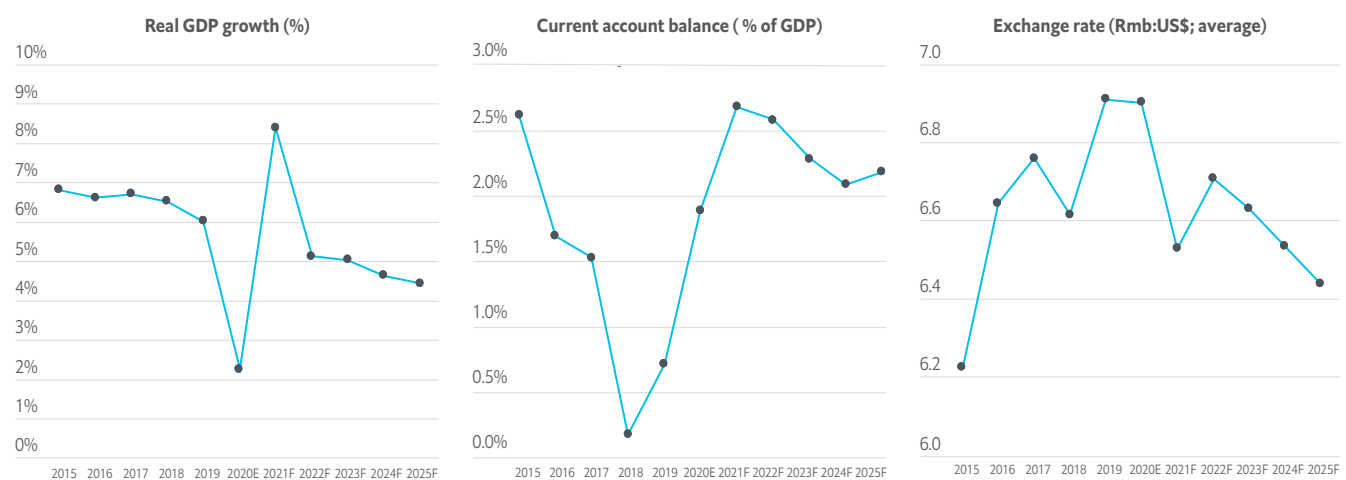
A. Economic outlook

Thanks to a swift recovery from covid-19 and strong projected exports, the Chinese

economy is expected to rebound significantly in 2021 but decelerate steadily in 2022-25. The Economist Intelligence Unit forecasts real GDP to grow by 8.5% in 2021, accelerating from an estimated 2.3% in 2020. Beyond 2021, annual GDP growth is projected to gradually slow down to below 5% by 2025 (Figure 21). The economic outlook will be shaped by a range of domestic constraints and policy catalysts, as well as external risks.

Productivity growth is losing steam. China's rapid improvements in industrial productivity over the past few decades have largely been achieved through absorbing surplus rural labor and technological catch-up, as well as strong state support policies. However, further productivity growth will be harder to achieve, given the demographic aging at home and increasing technological convergence with developed economies. In addition, a policy focus

Figure 21
China's GDP growth, trade balance and exchange rate, 2015-25



Source: The Economist Intelligence Unit forecast, May 2021

on self-sufficiency under the “dual-circulation model” poses a threat to economic efficiency, which would hinder productivity gains.

Meanwhile, domestic demand growth will be sustained by social stability and reforms to unlock consumption. Mr Xi will almost certainly remain in office following the 2022 national congress. Deepening strains on China's relations with several powers, especially the US, will boost both domestic nationalism and support for the president. As a result, the country will retain broader stability—politically and socially. In addition, the Chinese authority has indicated that it aims to double per-head GDP by 2035 from its 2020 level, which would require ambitious economic growth averaging almost 5% a year. Given limited room for investment expansion, the authorities are likely to embark on reforms to boost consumption, including in areas such as social security and hukou (household registration).

Externally, protectionism, geopolitical tensions and diversification of foreign investment destinations will place a ceiling on China's broader trade and foreign investment prospects. The covid-19 pandemic and its aftereffects are expected to prompt a wave of protectionism that complicates the external demand picture. The China-US rivalry is likely to intensify and shift from trade towards other issues, including the frictions created by differing economic models, strategic competition in Asia-Pacific and human rights. As China hardens its stance on foreign policy, its relations with other Western powers, including Australia, Canada, the UK and a number of EU member states, will also fray. In addition, foreign investment will be increasingly diversified into other regional markets as multinationals seek to insulate themselves from external shocks and rising costs in China, capping growth in investment inflows.

B. Trade policy outlook

The four key priorities—indigenous innovation, self-sufficiency, national security, and market reform and opening—that have been driving China's trade policies and practices in recent years will continue to shape them in the short to medium term. The authorities have signaled these priorities over the past several months on various occasions:

- In March 2021 the National People's Congress approved the 14th FYP, the national development blueprint until 2025.²³⁵ The new plan emphasizes innovation as the center of the country's modernization and technological self-reliance as the strategic pillar of national development. In addition, the FYP elevates the status of manufacturing to move China up the value chain and consolidates its existing advantages. It also sets a new target to raise the share of SEIs in GDP to over 17% by 2025.
- On January 31st 2021 the CCP's Central Committee and the State Council jointly released the Action Plan for Building a High-standard Market System.²³⁶ While vaguely worded, it is aimed at building a high-standard market system that is unified, open and competitive within five years, and outlines a set of key goals, including strengthening IPR protection, promoting innovation, furthering market opening and creating a level playing field for foreign investors, among others.
- Earlier, at a meeting in December 2020, the politburo introduced the concept of “demand-side reform”, aimed at increasing the contribution of domestic demand to economic growth. In the meeting, Mr Xi also reemphasized that the core focus of the 14th FYP will be balancing national security and development.

As links between national security and economic and industrial policy grow, China's trade policymaking will become increasingly complex, and the focus on ensuring political and national security will overshadow the likelihood of radical market reform. The Chinese government is likely to increasingly use the pretext of national security concerns to justify protectionist trade and investment policies. In the meantime, the authority will elevate levels of self-sufficiency in areas where China is dependent on foreign investment and imports. Furthermore, to promote the consumption-driven growth model, the government will remain more open to foreign participation in service sectors, including financial services and healthcare.

As China's relations with the US and its allies deteriorate, Chinese authorities will be more likely to target foreign companies and leveraging trade for geopolitical purposes. China's new FIL already outlines grounds for reciprocal actions in the event that Chinese firms are "discriminated" against in overseas markets. Its amended Export Control Law (effective December 2020) also explicitly permits China to take reciprocal actions against countries judged to have "abused export controls" to harm national security interests. Large companies will be particularly at risk, as Chinese authorities could use them as leverage for diplomatic pressure. In addition, the authorities are also likely to step up efforts to diversify import sources for goods that are critical to social stability and national security—such as certain minerals and agricultural products—shifting away from countries with which it has geopolitical tensions.

The Chinese government will also leverage multilateral or bilateral trade agreements to elevate its trade positioning. China is likely to anchor Asia more firmly around its supply chain—such as by leveraging the Regional Comprehensive Economic

Partnership—in order to offset some of the risks caused by global companies diversifying foreign investment beyond China. In addition, to prevent trading partners' outright alignment with US policy, China is expected to offer economic benefits by signing bilateral agreements, albeit without making significant concessions in areas such as industrial policy.

C. Currency positioning outlook

Looking forward, Chinese authorities are likely to continue to work towards a market-determined value of the RMB, driven by the desire to increase its international use and the need for financial market liberalization to boost investment inflows.

For the exchange-rate regime, the Chinese authority is expected to continue the reform while refraining from embracing free-floating exchange rates. The reform towards the market-determined value of the RMB is mainly driven by two factors: the government's desire to promote internationalization of the RMB and increase the country's geo-economic influence; and the necessity

China's new FIL already outlines grounds for reciprocal actions in the event that Chinese firms are "discriminated" against in overseas markets. Its amended Export Control Law (effective December 2020) also explicitly permits China to take reciprocal actions against countries judged to have "abused export controls" to harm national security interests.

of opening the capital account in line with financial market liberalization to bolster investment inflows.

In the meantime, the PBC will continue to reserve policy space for intervening in the foreign exchange market to ensure financial stability while allowing the RMB to fluctuate within a comfortable range (generally RMB6-7 per US dollar) but has indicated no intention to use the exchange rate for competitive purposes. In August 2019 the governor of the PBC, Yi Gang, stated that China would “not use the exchange rate for competitive purposes and not use the exchange rate as a tool to deal with external disturbances such as trade disputes.”²³⁷ Moreover, in the US-China Phase One trade agreement, China is committed to refraining from “competitive devaluations and the targeting of exchange rates for competitive purposes.”²³⁸

In the medium term (2021-25), The Economist Intelligence Unit expects the RMB to be traded within a range of Rmb6-7 per US dollar. Since late 2020 the RMB has faced upward pressure thanks to: sustained foreign interest in the country’s liberalizing financial sector and positive investor sentiment towards China’s economic recovery. In the longer term, a declining current-account surplus will weigh on the currency’s value. According to The Economist Intelligence Unit’s forecast, China’s current-account surplus as a percentage of GDP will decline from 2.7% in 2021 to 2.2% by 2025.

The possibility of a sharp depreciation in the RMB will be limited. The PBC will view large currency fluctuations as a risk to business and consumer confidence, which could stoke imported inflation, and therefore intervene to prevent it. Meanwhile, the government also has sufficient tools to manage periods of volatility, including

foreign-exchange reserves and capital account controls (tightened notably in 2016). Moreover, continued liberalization of China’s financial services market, which will drive capital inflows, points to a robust outlook for the RMB’s value.

D. Conclusion

In light of the slowdown in domestic economic and productivity growth, and an increasingly difficult geopolitical environment, China’s trade policymaking will become more complex and assertive, posing greater uncertainty and risk to its trading partners and foreign investors. The CCP’s priorities to push indigenous innovation, drive self-sufficiency, enhance national security, and open up its market will continue to shape China’s trade positioning, but the focus on national security will overshadow the likelihood of radical market reform. Chinese authorities will be more willing to leverage trade for geopolitical gain, and issues such as industrial subsidies, IP theft and cyberespionage will continue to be prominent concerns in trade conflicts. In the meantime, while China’s elevated commitment to promoting a level playing field and furthering market liberalization presents new opportunities for foreign investors, the reforms necessary to deliver those outcomes may suffer from ineffective implementation if they are not considered to support strategic national interests.

China’s reform and development program has always been a means to enhance the country’s standing, and for decades trade policy was key to importing know-how and building the country’s economic and innovation capabilities. As policymakers feel increasingly confident in the country’s economic prowess, and more challenged by outside forces, trade policy is becoming a means to exercise power as well as to build it.

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