CHINA
CHAMPION OF (WHICH) GLOBALISATION?

edited by **Alessia Amighini**
introduction by **Paolo Magri**

ISPI

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Introduction

This year marks the 40th anniversary of China's reform and opening-up promoted by Deng Xiaoping. Over the decades, China has learned how to grasp the benefits of free trade and has managed to become the world's second-largest economy. It is a process that sped up after the end of the Cold War.

The rationale behind this acceleration is twofold: first, China had to escape the fate of the Soviet Union by taking a concrete step towards paramount reforms. Second, it was offered the unprecedented opportunity to fully reap the low-hanging fruit of a truly globalised world economy.

China's accession to the World Trade Organization (WTO) in 2001 marked a milestone in Beijing's path towards its integration in the global economy. This turned out to be a game changer, providing opportunities and challenges to both the incumbent world economic powers and the emerging economies.

Beijing's powerhouse of low labour costs and weak currency prompted skyrocketing Chinese production and an impressive trade surplus (from US$1 billion in 1995 to US$820 billion in 2007). Massive investment in export sectors led to double-digit growth rates – peaking at 14.2% in 2007 – which turned China into a world engine for growth. Clearly, this trend was destined to cool down at some point. After the international economic crisis, Beijing had to lower its expectations in terms of growth rate to a "New Normal" of about 6.5% per year. Also, this goes hand in hand with China's wish to move from an investment-led growth to a more sustainable and consumption-driven growth. All the more so in a country where the extreme poverty rate dropped from 50% in 1990 to 5% today, thus giving rise to a new middle class asking for higher salaries and better living standards.

In other words, the time is ripe for China to rethink its growth model, also by shifting from a "low-cost factory" to a high value-added economy. This is precisely the main objective of the "Made in China 2025" initiative, firstly announced in 2015. The message to the rest of the world is clear: China is willing to close the technological gap with mature economies.

However, this message inevitably raises many concerns. Overall, Beijing was proving to be a quick learner in reaping the benefits of free trade, but very reluctant when it comes to reciprocation. The Chinese economy has not been fully liberalised as it keeps being heavily controlled by the State. This result is at odds with the original US strategy to have Beijing in the WTO: China would have gradually abided to the Western trade norms and values. This would have encouraged Beijing, in turn, to become a more accessible market, accelerate its domestic liberalisation and political reforms towards a more "democratic" country, and become a more responsible and trustworthy state actor at the international level.

On the contrary, the dark side of China's rise emerged with Beijing allegedly carrying out unfair economic practices, including dumping policies and recurrent disrespect of intellectual property rights. Beijing has been trying hard to counter these allegations and does not miss a chance to reaffirm its norm-abiding approach. This was the case in Davos, in January 2017, when President Xi Jinping portrayed China as a champion of globalisation and renewed his "commitment to growing an open global economy". It was definitely a smart move, especially at a time when the newly-elected US President Donald Trump was about to pursue his protectionist "America First" policy and a partial withdrawal from multilateralism, thus putting to the test the traditional Western alliance and world governance. It was another opportunity for Beijing to scale-up its economic and political role at the international level. Although China flourished thanks to the Western economic order, today it seems to be ready to challenge it and mould a new global governance with "Chinese characteristics". In this perspective,

the ultimate goal of the One Belt One Road (now Belt and Road Initiative – BRI) is not only the redrawing of international trade routes between Asia and Europe, but also the shift from Western-style multilateralism to a mix of bilateral and new multilateral negotiations with China, needless to say, as the inevitable interlocutor in any major negotiation.

This speaks volumes about China's ambitions, which are clearly not limited to trade and infrastructures. The entire world economy, from Latin America to Europe, from Africa to the Arctic, is being reshaped by China. This momentous change in the world economic balance of power is also taking its toll on the "old" Bretton Woods institutions. To be sure, China is right when it criticises the governance of the IMF as it is granted only 6% of votes even if its economy is worth 18% of the global GDP. In comparison, EU member states hold almost 30% of votes (including the UK) even though they represent about 22% of world economy. A lose-lose situation, as Beijing is clearly underrepresented while the EU is not gaining from its overrepresentation as European votes are spread across the EU member states, which ultimately do not speak with a single voice. As a result, China's engagement with the Bretton Woods institutions is down to a record low, with Beijing promoting new – and potentially competing – institutions such as the Asian Investment Infrastructure Bank (AIIB), the Chiang Mai Initiative Multilateralization (CMIM), the BRICS' New Development Bank (NDB), and the Regional Comprehensive Economic Partnership (RCEP).

Against this background, questions and concerns around the globe abound: what kind of globalisation can be expected from an increasingly state-controlled China? How will China position itself in the global economic order? To what extent will China adhere to and comply with international rules and standards? Will it be increasingly active in setting its own? Does China posit itself as a defender of multilateralism or bilateralism? As an advocate of a new wave of global integration, does China want to rewrite the rules of engagement of the international

economy, promoting a new model of economic globalisation detached from political and cultural openness?

This volume addresses these questions by offering different perspectives on the impact of China's rise as a global economic champion. Alessia Amighini's chapter describes the impact of China's trade and investment growth on its economic relations with the rest of the world. The central issue is whether China's rise will increase both inward and outward trade and investment openness and therefore global interdependence or if it will instead deepen other countries' dependence on China through trade and investment flows. The Belt and Road Initiative has recently helped to consolidate Beijing's image as a net direct and financial foreign investor, working to establish what has been labelled "globalisation with Chinese characteristics", which seems more an outward expansion of Chinese influence abroad than a step towards a truly multilateral approach.

A related question concerns the role of China in world trade relations. Shannon Tiezzi illustrates Beijing's fundamental contradiction towards free trade. Unlike President Trump's protectionist agenda for the American economy, Chinese President Xi Jinping has repeatedly announced his willingness to safeguard globalisation. However, China has regularly applied selective market restrictions, and its economy is largely controlled by the state. In addition, Beijing's Free Trade Agreement (FTA) strategy seems to be much more based on bilateral agreements rather than on multilateral ones, thus raising growing concerns about China's real engagement to multilateralism. The official position of the Chinese government in favour of globalisation as well as the measures that are recurrently announced to become a more open market economy collide with the actual Chinese practice of controlling the economy, enforcing protectionist measures, limiting domestic market access, and resorting to unfair competition.

In Chapter 3, Christopher Balding discusses how China is actually applying a much more nuanced and limited concept of market system within its own economy than what the Chinese

establishment official admits in public speeches and international fora. Most notably, the state still has a great role in the economy through direct or indirect ownership of firms, and pricing decisions are often not left to market forces but are subject to state regulation. This ambivalent behaviour – limiting market mechanisms at home while, at the same time, claiming recognition of the market economy status at the international level – is another source of major concern for the rest of the world.

The desire to develop a more sustainable economic growth is also setting the stage for China's investment in new technologies. Yingqiu Kuang explains how the country set up an ambitious plan to become the leader in the field of technical standard-setting, which has become a key tool in the race towards technological supremacy. Long known as a "catching-up" state and technology follower, China has managed to secure and promote some of its preferred settings in global technology rules. China has gradually transformed its role in the global technology regime, from primarily observing to a more active participation. In particular, under the new "Belt and Road Initiative", China seeks to strengthen the distribution of its own national standards into neighbouring countries and place Chinese standards more actively in international standardisation efforts.

Parallel to its rise at the centre of global economic governance, China also appears as the pivotal player in global climate change. In his chapter, Yves Tiberghien investigates the direct consequences of Beijing's economic and industrial development on the country's position in global climate change negotiations. In the midst of a massive green revolution to create a more sustainable industrial development, China has become an avowed advocate of the global climate governance in 2017 and is giving credence to its newfound climate leadership. The domain of climate change is probably the most vivid representation of China's willingness to engage with the global order as an increasingly proactive stakeholder.

The chapter by Fabio Indeo investigates China's plan to find new energy sources. The author explains how Beijing's quest for alternative energy sources and technologies might collide with other states' energy security. China is building alternative geographical routes to safeguard resources supplies. This intertwines with the Belt and Road Initiative and how China is conceiving it for securing both access to energy sources and transportation. However, it remains to be seen how these projects undermine the energy security of other states and how this could trigger a geopolitical confrontation between China and other regional actors.

Finally, Alessia Amighini builds upon the chapters of this volume to provide specific policy recommendations for the European Union.

In sum, this volume repeatedly acknowledges that China is a champion of globalisation and tries to shed light on its characteristics. However, it remains to be seen how the globalisation "made in China" will look like in the future.

Paolo Magri
ISPI Vice President and Director

1. China's New Economic Powerhouse

Alessia Amighini

This year marks the 40th anniversary of China's reform process. Since the inward-looking approach that inspired an almost complete autarchy in the first three decades of the PRC, the country has increasingly opened up to the rest of the world. Over the past four decades, China has learned how to grasp the benefits of economic globalisation and has become the world's second-largest economy. The ultimate aim of China's growing international integration has invariably been not the opening up *per se*, but the willingness to design appropriate and effective national development strategies centred on progressive and selective integration with the world economy. At the time of Deng's *Open Door Policy*, in the late 1970s, foreign firms were given access to the vast Chinese labour market – but not the consumer market, until very recently – with a view to build domestic manufacturing capabilities and accumulate foreign reserves through an increase in national export capacity. Since that time, a steep learning curve allowed the country to develop productive and financial strengths that were then leveraged upon to design the following generation of more outward-oriented development policies. The *Go Out Policy,* started in 1999, aimed at accessing foreign natural resources, acquiring technological skills and assets, and expanding the international market reach of Chinese firms.

The ultimate aim of China's growing international integration has invariably been not the opening up per se, but the willingness to design appropriate and effective national development strategies centred on progressive and selective integration with the world economy.

Because of growing outbound activities, China's level of integration into the global economy today has increased significantly compared to the end of the previous century, both in the volume of trade and degree of openness to inward and outward foreign investment. Its foreign trade grew even faster than its output, and it accounted up to 62% of GDP in 2006[1], against 10% in 1978 and less than 5% in 1949. China has also become open to international investment, with over 128 billions of inward investment flows in 2014, which represent 7.6% of the world total (compared to 1% in 1980), the highest among all developing countries as well as emerging ones. However, more recently there has been a growing divergence between the inward and outward flows of both trade and investment. Imports and inward investment flows are growing less than before, while exports and outbound investment are gaining speed. After 2006, there has been a progressive decline of trade growth compared to GDP growth, so that the share of GDP has reached 37% in 2016. Merchandise exports have been outpacing merchandise imports since 2000, with an average growth of 5% and 2% respectively[2], and now China accounts for almost 13% of world exports compared to just around 10% of world imports[3]. Also on the foreign direct investment side, the initial openness to inbound flows has been recently outpaced by an outbound orientation. Inward investment now accounts for around 1% of GDP compared to almost 6% in 1994, while outbound investments have grown very rapidly since 2006, up

More recently there has been a growing divergence between the inward and outward flows of both trade and investment. Imports and inward investment flows are growing less than before, while exports and outbound investment are gaining speed.

[1] According to UNCTAD data available at http://unctadstat.unctad.org

[2] According to WTO data available at http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=E&Country=CN

[3] According to UNCTAD data available at http://unctadstat.unctad.org

to outpacing inflows in 2015; today, they account for over 12% of total world flows (and 5% of total world stock).

China is now a net direct and financial investor abroad and claims its own development is an opportunity for the rest of the world, more specifically for the developing world, where China has become the main trade and investment partner. The more recent generation of national development policies is a much more widespread and comprehensive mix of plans aimed at upgrading domestic production and technologies (*Made in China 2025*), and at the same time expanding the outward reach of Chinese firms through a massive international development initiative, the *Belt and Road Initiative* (BRI). The BRI has helped consolidating Beijing's image as a net direct and financial investor abroad, which raises the important question of whether China is still willing to promote further globalisation in a multilateral setting or if it is actually working towards the transformation of world interdependence as we know it, in order to establish what has been labelled "globalisation with Chinese characteristics".

Also on the foreign direct investment side, the initial openness to inbound flows has been recently outpaced by an outbound orientation.

China is now a net direct and financial investor abroad.

Because of its emergence in international economic flows, China's role in global political and economic relations and governance has evolved enormously in relation to the marginalisation and passivity that had characterised it for most of the 20th century. Today, China has become very active in the proposals for reform of international economic governance, in

Increasing concerns arise on the part of China's main trade and economic partners that increased integration in the global economy will not result in a growing mutual interdependence between China and the rest of the world, but more in a rising dependence of a growing number of countries and industries on China.

which she aspires to participate as a leader. However, increasing concerns arise on the part of China's main trade and economic partners that increased integration in the global economy will not result in a growing mutual interdependence between China and the rest of the world, but more in a rising dependence of a growing number of countries and industries on China. In sharp contrast with the recent US withdrawal from multilateralism, President Xi has renewed his commitment to growing an open global economy. But what kind of globalisation can we expect will be supported by an increasingly State-controlled China?

Looking at the actual behaviour of China to date, not so much to its official declarations, should we expect that globalisation in Chinese perspective to be an opening up of China to the rest of the world or rather be an extension of the Chinese sphere of influence abroad, through growing exports of goods, services and capital, and increasingly also of institutions, rules, and standards?

This chapter will discuss to what extent "globalisation with Chinese characteristics" might look very different from the current form of global integration. Looking at the actual behaviour of China to date, not so much to its official declarations, should we expect globalisation in Chinese perspective to be an opening up of China to the rest of the world – in response to what the world has asked China since the beginning of the 21st century – or rather an extension of the Chinese sphere of influence abroad, through growing exports of goods, services and capital, and increasingly also of institutions, rules, and standards?

A strong trade powerhouse

At the time of its official accession to the World Trade Organization (WTO) on 11 November 2001, as the 143rd member of the multilateral economic institution that regulates more than 90% of world trade, China ranked sixth in world

trade. This represents a dramatic rise compared to the 32nd place in 1978 when Deng Xiaoping announced the country's policy of reform and openness, whose total imports and exports was only US$20.6 billion (less than 1% of world trade). In 2017, China's total merchandise trade exceeded US$3.7 trillion, more than 200 times the 1978 level. With 12% and 10% of world merchandise exports and imports respectively, China is now the world's largest exporter and the second largest importer[4].

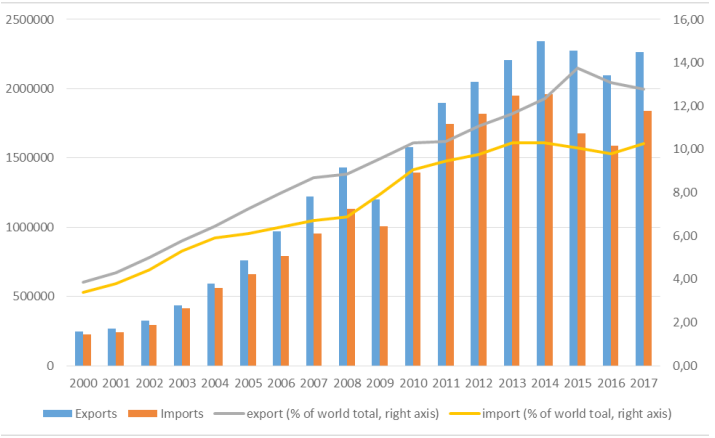
The flamboyant rise of China's commercial superpower has raised concerns among authorities in many countries around the world as they assess how China's economic weight will affect their economies and global trade as a whole. In this context, the future of China's international economic relations with its major partners and the rest of the world and the implications for the governance of world trade depend very much on China's changing trade patterns in the 21st century, as well as on the various stages of its trade policy since its accession to the WTO.

Membership in the WTO has allowed China to fully integrate into the global market and unleash its potential as a market power. China's export performance has largely relied upon strong price competitiveness linked to low wage costs, demographic dynamics (the working-age population grew by 350 million people between 1980 and 2005), and the quality of its labour force, as well as its foreign exchange policy aimed at containing the appreciation of the Yuan. As a result, since 2001, Chinese trade has grown exponentially, with exports crossing the threshold of one billion US dollars in 2007 and doubling in 2013. At the same time, in its accession agreement, China has promised to give WTO members greater market access to its agriculture, industry, and services sectors through lower barriers, the elimination of non-tariff measures, and other measures aimed at bringing its laws into conformity with WTO rules. However, so far a number of important sectors (including

[4] According to WTO data available at http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=E&Country=CN.

agriculture and food products, banking, and finance) remained closed to foreign investment and protected from competition.

Fig. 1 - China's share in world trade



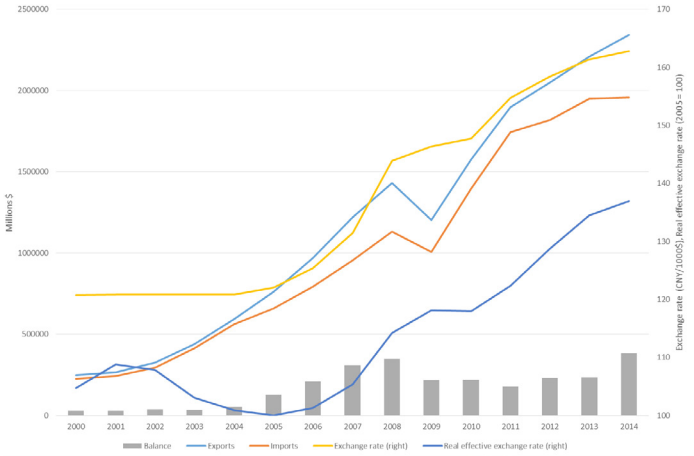
Source: author's elaboration on UNCTAD data

The rise of trade surpluses

Since the 2000s, China's exports have grown at a much faster rate than imports, contributing to growing trade surpluses (at least until the onset of the financial crisis in 2008, when the surplus peaked at 340), up to $ 421 billion in 2017. This has prompted a number of trading partners – especially Western countries – to blame China for handling the currency since joining the WTO. The United States has long argued that the renminbi is significantly understated by as much as 40%, making Chinese exports to the United States cheaper than they would be if they were determined by the market. However, the evolution of the exchange rate does not seem to be compatible with this point of view. When China opted for a floating-rate exchange rate regime against a basket of currencies, trade surpluses continued

to rise. That happened despite the renminbi revalued by 2.1% against the US dollar in July 2005 – allegedly, because of international pressure – and the renminbi value had risen by 30% since the same year. Such circumstances were so unexpected on the part of the US Administration that they led to the adoption of two foreign currency bills in the US Congress and Senate in 2010 and 2011. The heavy reliance on manufactured exports has also left China vulnerable to restrictive import measures by its trading partners. Since 1995, for example, China has consistently ranked as the country that is subject to the largest number of anti-dumping and countervailing measures. According to statistics published by the WTO, 35% of all anti-dumping investigations and 71% of all countervailing investigations since 2008 have been targeted at Chinese products. Since 2011, exports have risen again faster than imports, and as a result, the surplus has increased, despite the fact that the real effective exchange rate has continued to increase.

Fig. 2 - China's trade and exchange rate since 2000



Source: author's elaboration on World Development Indicators and UNCTADstat

During the summer of 2015, the Chinese monetary authorities decided to change the procedure of choice of the central parity around which the exchange rate of the renminbi floats (maximum +/- 2%). Since August 11, 2015, the central parity is set at the level of the previous day's exchange rate. As this has regularly reached the minimum value of the oscillation band since the beginning of 2015, the decision involved a devaluation of 1.9% in a single day and several percentage points in the following days. From the summer of 2015 until the end of 2016, the renminbi had devalued by around 10%, raising strong criticism from the United States and other major trading partners of China, despite the devaluation being much smaller than the revaluation recorded in the previous ten years. Since 2015, the trend towards lower commodity prices (especially because of a contraction in Chin's growth as the world's largest importer) has contributed to further reducing the value of imports, and the commercial surplus has risen further. This has given China important leverage in international economic relations, to the extent that the country has become one of the main trade partners for a rising number of both developed and developing countries.

The world largest trading partner

The evolution of China's foreign trade structure has also affected the composition of its trading partners. Disproportionately carried out with a small group of countries throughout the period of reforms until the beginning of the current century, Chinese trade has now progressed to a greater number of trading partners, among the industrialised as well as developing countries. In 2000, the top ten trading partners of China – Japan, the United States, the European Union, Hong Kong, the ASEAN countries, South Korea, Taiwan, Australia, Russia and Canada – accounted for 87.3% of exports and 84.5% of imports. These figures fell to 80.7% and 72.3% in 2008 but were still much higher compared to the United States (61.4% and 65.9%).

Today, the geographical concentration of Chinese exports has greatly diminished, and the top ten importers of Chinese products (the United States, Hong Kong, Japan, South Korea, Germany, the Netherlands, Vietnam, the United Kingdom, India, Russia) also include emerging countries, and together account for 58.8% of total Chinese exports (the United States among them only 17%). All advanced economies now account for just around 50% of China's merchandise exports[5].

China's dependence on exports has exacerbated the risks of a downturn resulting from systemic and structural shocks in the global economy, such as the 2008 financial crisis. The global economic recession that began in late 2008 was the single most serious challenge to China's reliance on export-led growth. In 2009, Chinese exports fell 16%, and imports fell 11% due to weak demand both domestically and externally. Real GDP growth declined from 9.6% in 2008 to a rate of 6.2% year-on-year in the first quarter of 2009, the lowest rate in more than a decade. Meanwhile, Chinese exports have also become the main target of protectionist measures around the world.

At the same time, since becoming a member of the WTO in 2001, China has sought to expand its trade with developing and emerging markets. China has actively explored trade opportunities in these markets through numerous bilateral free-trade agreements (see Chapter 2), with the signing of the China-ASEAN Comprehensive Economic Cooperation Framework Agreement between China and the Association of Southeast Asian Nations (ASEAN) already in November 2002. Since then, China has signed twelve free-trade agreements as well as economic partnerships with Singapore, Pakistan, New Zealand, Chile, Peru, Costa Rica, Hong Kong, Macau and, more recently,

Since becoming a member of the WTO in 2001, China has sought to expand its trade with developing and emerging markets through numerous bilateral free-trade agreements.

[5] According to data from IMF *Directions of trade statistics*.

Taiwan, Iceland, Switzerland, South Korea, and Australia. In addition, free-trade agreements between China and the Gulf Cooperation Council, Australia, Norway, the Southern African Customs Union, Japan, Sri Lanka, and the Maldives are underway. Negotiations while feasibility studies on regional trade agreements with India, Colombia, Georgia, and Moldova were completed. Overall, China's current and proposed free-trade agreements cover 28 economies on five continents. Trade with emerging markets and free-trade agreement countries has allowed China to recover some of the export losses that have resulted from depressed demand in developed country markets such as the European Union and the United States.

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Rapid diversification of export sectors

Compared with the last twenty years of the 20th century, when Chinese exports were supported by traditional industries – textile-clothing and miscellaneous manufactured goods, such as toys, from the 1980s, and electronic products in 1990s – Chinese exports have diversified very rapidly. The most obvious change is the fall of textile-clothing, which was still the most exported category in 2000, and which has lost eight percentage points over the last fifteen years to the benefit of electrical machinery. The other upward positions are also telecommunications equipment, office equipment, electrical machinery.

Tab. 1 - Evolution of China's exports by product categories (Structure, in %, SITC Rev. 3)

2000	%	2016	%
Telecommunication equipment & parts	5.0	Telecommunication equipment & parts	11.1
Automatic data processing machines	4.4	Automatic data processing machines	6.1
Articles of apparel, of textile fabrics	4.4	Cathode valves & tubes	4.3
Baby carriages, toys, games & sporting goods	4.1	Furniture & parts	2.6
Footwear	4.0	Electrical machinery & apparatus	2.4
Men's clothing of textile fabrics, not knitted	3.1	Footwear	2.3
Women's clothing, of textile fabrics	2.9	Baby carriages, toys, games & sporting goods	2.2
Parts, accessories for machines of groups 751,752	2.4	Articles of apparel, of textile fabrics	2.1
Electrical machinery & apparatus	2.4	Apparatus for electrical circuits; board, panels	1.9
Cathode valves & tubes	2.1	Household type equipment, electrical or not	1.7
Total	100	Total	100

Source: author's elaboration on UNCTAD data

Abundant literature on the evolution and characteristics of China's foreign trade until the mid-2000s explains China's extraordinary growth in market shares around the world. The success of Chinese exports depends on many factors, far more than comparative advantage and market opening. The rapid growth of Chinese exports is related to the dramatic transformation in the pattern of trade since 1992. There has been a significant decline in the share of agriculture and light industry, such as textiles

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and clothing, and a growth of heavy industry, such as consumer electronics, home appliances, and computers, all of which are very dynamic products in world trade compared to agricultural and textile products. China's rapid growth in the world market is precisely due to its ability to acquire specialisations in new industries and specifically in new technology products (mainly electronic products).

China now exports more products than twenty or thirty years ago: however, the strong growth of Chinese exports has occurred due to the increase in the intensive margin exports (i.e. the volume of products exported) and not the extensive margin (i.e. the number of varieties exported). As China's export volumes increase, world prices for these products have trended lower. Between 1997 and 2005, average prices of products exported by China to the United States decreased by an average of 1.5% per year, while average prices of these products from the rest of the world to the United States has increased, on average, by 0.4% a year. While this downward pressure on prices of goods exported by China has, on the one hand, benefited consumers around the world, on the other hand, it contributed to intensify the degree of competition on goods markets between Chinese producers and foreign producers, to the detriment of the latter.

The slow shift towards top market products

Compared to the structure of Chinese trade in the 20th century, which was characterised by over-reliance on exports of

low-tech traditional products from labour-intensive and natural resource-intensive sectors, China's foreign trade structure largely changed. Traditional industries are beginning to lose their external competitiveness as labour force growth slows and labour costs rise. This is compounded by bottlenecks in land, water and energy resources, exacerbated by overexploitation. In addition, until 2008, the majority of China's exports were value-added commercial processing industries (for example, China earns only two per cent of the total value for each iPad it assembles and exports to the rest of the world).

In recent years, the rapid rise of medium and high technology exports and the contraction of entry-level products has accelerated both for export and import. The share of the low-end market thus fell by 11 percentage points in China's exports between 2000 and 2012 (mainly in consumer goods from the textile sector) in favour of high-end products (mainly capital goods in the electronics sector). Today 60% of Chinese exports are still in the low end, but mid-range and high-end products have gained ground[6].

The switch to the high end of the price/quality ratio also applies to Chinese imports, which is a recent and even more dramatic change. Since the global crisis, a divergence has widened between the low end and the high end. Low-end products, which accounted for the largest share of Chinese imports until 2002 (42%), lost 24 percentage points in favour of high-end products, which now account for half of the imports. Parts and components make up the bulk of imported high-end products, but consumer goods make a remarkable new entry[7].

It is the rapid rise in the technological range of China's exports that explains why they exhibit a product structure that is very similar to that of industrialised countries. Overall, China's unique feature of foreign trade is an exceptional degree of sophistication and complexity, in relation to the country's per

[6] F. Lemoine, S. Poncet, D. Ünal and C. Cassé, *L'usine du monde au ralenti ou la mutation du commerce extérieur chinois*, CEPII working paper No. 4, March 2015.
[7] Ibid.

capita GDP: the technological level of exported products is much more similar to that of exports by advanced countries than emerging and developing countries.

China's export performance thus carries a share of "statistical mirage" because the local value added of exports is often low in the high-tech sectors. As a result, although Chinese products are still largely concentrated at the lower end of the price/quality ratio, China has ended up with a basket of exports that is significantly more sophisticated than it would normally be for a country at its level of income and industrial development.

The exceptional growth of processing trade

Much of China's export growth has been due to growth in the practice of assembly and subcontracting by foreign-invested firms established in China since the early 1990s, which consists of processing intermediate products imported duty-free. The exceptional growth of processing trade over "ordinary" trade (exports based mainly on local inputs and imports mainly for domestic demand) since the early 1990s coincided with the acceleration of the opening of the country to the investments of foreign firms, precisely in the new technology electronic sectors. In these sectors, China has been able to play a role as a producer of last resort with assembly operations, while advanced countries were looking for strategies to reduce production costs in labour-intensive activities. The growing interdependence within value chains between Chinese firms and foreign-invested

The growing interdependence within value chains between Chinese firms and foreign-invested firms operating in China has progressively been leveraged by Beijing to increase the technological and productive capacities of domestic firms. Interdependence has, therefore, become a source of bargaining power for China and has created a growing dependence of foreign firms on the internal rules and conditions established by the Chinese government, often in contrast with WTO rules.

firms operating in China has progressively been leveraged by Beijing to increase the technological and productive capacities of domestic firms. This has been achieved by granting more access to the domestic market in exchange for knowledge and technology transfer by foreign firms. Interdependence has, therefore, become a source of bargaining power for China and has created a growing dependence of foreign firms on the internal rules and conditions established by the Chinese government, often in contrast with WTO rules.

From the mid-1990s to the dawn of the financial crisis unleashed in 2007, the processing trade of foreign-owned enterprises has taken a dominant role in foreign trade, culminating in 2006 with 47% of exports and 42% of imports all products (i.e. 51% of its manufacturing imports). Integration into the production and trade networks of the multinationals structured China's trade, justifying the name of "factory of the world". These operations gave a new dimension to China's foreign trade because high-tech products are the most dynamic in world trade – i.e. have the highest growth rates among all the products exported to the world and accelerate its high technology exports, which heavily rely on high-tech imported components. These imports of parts and components are generally of a high technological level, originating from countries such as the United States and Japan. Thus, even though it appears that China has radically changed its comparative advantage over the previous two decades, a closer look reveals that it continues to specialise in low-technology goods. In fact, the labour-intensity of Chinese exports remains unchanged once the processing trade is considered.

China has radically changed its comparative advantage over the previous two decades from low to mid-high tech exports, but the labour-intensity of Chinese exports remains unchanged.

The extent of the phenomenon reached its peak during the 1990s until the first half of the 2000s, after which the great financial crisis marked a new stage in world trade as well as in

the characteristics of the participation of China to international trade. In the 2000s, phenomena such as the international segmentation of production processes, liberalisation of international trade in goods and capital, and expansion of demand in advanced economies all accelerated globalisation, and gave China the opportunity to play a leading role in global value chains through the development of assembly operations.

Since 2007, processing trade is losing momentum. Production in the "factory of the world" has slowed down. Processing activities remain the source of China's trade surplus but are no longer the main driver of its commercial dynamism. An analysis of the technological content of exports shows that in the 2000s, medium-technology products gradually replaced low-technology products as the main component of the country's exports. China continues to expand its presence in international trade through its ordinary trade, which exceeds processing trade, on the import side since 2007, and on the export side since 2011. Between 2007 and 2014, ordinary trade gained 13 points in Chinese trade. The increase is particularly strong on the import side (+14 points) and is not only due to the increase in volume and price of imported primary products: in 2007, 43% of manufacturing imports were made under the ordinary trade regime, it is now almost 60%. Thus, the new engine of the country's foreign trade now resides in its domestic demand (ordinary imports) and its final assembly activities (ordinary exports). The changes underway translate China's shift to a less extroverted mode of growth.

In the early 2000s, consumer goods were only marginal in standard manufacturing imports (5%). In 2012, their importance approached that of capital goods (16% against 20%). This growth reflects both a growth in volume and an increase in the price/quality ratio extremely fast. In 2012, 70% of consumer goods imported by China was in the high-end, against less than 40% in 2006. The nature of imported consumer goods has changed dramatically: automobiles have taken a prominent place with almost half of the total, while in the early 2000s agri-food products were by far the largest category of imported

consumer goods. That the strong demand for imported consumer goods is the most salient feature of the evolution of manufacturing imports destined for the domestic market may seem paradoxical when we know that during this period household consumption was the least dynamic component of Chinese growth. This confirms the very unequal distribution of household incomes, with a rapidly growing middle class with a rising spending capacity.

The evolution of China's foreign trade structure has also interested the type of actors involved (Chinese firms and foreign-owned firms). In fact, Chinese firms and foreign-owned firms participate, each in their own way, in this change in Chinese foreign trade. Foreign-owned firms have lost the dominant role they had in the country's foreign trade because of their strong position on the now-declining horse-trading business. They accounted for 59% of China's trade in 2006, in 2014 their share dropped to 48%. This decline occurs despite the growing commitment of these firms in ordinary commerce and, in particular, in ordinary imports. Foreign companies are importing more and more to the domestic market: their ordinary imports of manufactured goods account for 73% of their imports for outsourcing and are now equivalent to those of Chinese firms. Thus, for foreign companies, China is less and less an assembly and export platform, and increasingly an internal market to capture. On the side of ordinary exports, the share of foreign firms remains relatively low (24% in 2014), experiencing a certain slowdown after a rapid growth during the 2000s.

The increase in the share of capital goods exports, to the detriment of the formerly dominant consumer goods, results from the extension of financial and technical assistance to developing countries for the exploitation of their primary resources and the construction of their infrastructures.

The most dynamic markets for ordinary exports are in developing and emerging countries, which receive more than

one-third, twice as many as in 1997. This increase is mainly due to Chinese enterprises, which account for 80% of ordinary exports to these countries. This movement, supported by the authorities, was led by private (and privatised) companies that supplanted state-owned enterprises in this area. The dynamism of ordinary exports from Chinese firms to developing countries concerns all geographical areas (although Asia remains predominant) and is accompanied by structural changes in the nature of the products traded. The increase in the share of capital goods (which doubled between 2000 and 2012 to reach 19%), to the detriment of the formerly dominant consumer goods, illustrates the qualitative transformation of Chinese supply; it also results from the extension of financial and technical assistance to developing countries for the exploitation of their primary resources and the construction of their infrastructures (ports, transport). Chinese private companies thus appear as dynamic players in the redeployment of trade through their exports of unsophisticated products to emerging countries.

Currently, the new international environment, where global demand is shifting towards developing countries, together with China's internal transformations and the evolution to a new development model, are leading to important changes in China's foreign trade, in favour of a growth regime focused on increasing domestic demand.

Currently, the new international environment, where global demand is shifting towards developing countries, together with China's internal transformations and the evolution to a new development model, are leading to important changes in China's foreign trade. The increase in wage costs since the mid-2000s is a long-term trend linked to demographic change and government policy in favour of a growth regime focused on increasing domestic demand (raising minimum wages and generalisation of workers' social security cover). In this context, the themes of the trade talks between China and its major partners

have shown a tendency to shift from exchange rate policy and competition from Chinese exports to the issues of regulating competition in the domestic market and access conditions for foreign companies to this market. Recently, this shift has been at the core of the announced threat by the United States to withdraw from the multilateral trading system, due to serious concerns that multilateral institutions, more specifically the WTO, might not be suitably equipped to deal with a rising China as a global economic powerhouse, but unwilling to fully comply with the rule of engagement in the global economy established by the WTO.

From largest recipient to net foreign direct investor

Together with the increasing participation in international trade on both the export and the import sides, inbound and outbound Foreign Direct Investments (FDI) have also been a major factor in China's integration in the world economy. Similarly to foreign trade policies, FDI attraction policies have evolved significantly since the beginning of the Open door policies in the late 1970s, but the ultimate rationale of FDI policies has invariably been, as in the case of trade, the promotion of national development, not so much an increasing degree of openness to foreign capital per se. A "selective openness" approach has applied to FDI attraction consistently over time, like in the case of trade facilitation, to industries and regions that were considered as national development priorities.

With the Open Door Policy started in 1978, China pursued the country's long-term national goals described as the so-called Four Modernisations, which were goals to strengthen the fields of agriculture, industry, national defence, and technology. As regards technology, Deng realised that China needed to learn from Western firms and therefore allowed foreign firms to start operating in the country. Four special economic zones were initially authorised in southern China to attract foreign firms

with tax incentives. By the end of 1994, 220,000 foreign-funded ventures had been approved, most of which were run by overseas Chinese from Hong Kong and Taiwan, accounting for almost US$100 billion investment, making the country the largest recipient of FDI in the developing world.

After being the largest recipient of foreign direct investments (FDI) among developing countries for more than two decades, China has become an important outbound investor, especially since the so-called Go Global Strategy was launched in 1999, as an effort by the Chinese government to promote Chinese investments abroad. The Government, together with the China Council for the Promotion of International Trade (CCPIT), has introduced several schemes to assist domestic companies in developing a global strategy to exploit opportunities in the expanding local and international markets. Since the launching of the Go Global Strategy, interest in overseas investment by Chinese companies has increased significantly, especially among State-Owned Enterprises (SOEs). Chinese companies – mostly large, but increasingly also medium-sized ones – are redirecting their investments overseas to diversify their assets and location portfolios[8].

In the following years, especially since 2006, China has accelerated its outward expansion through FDI, and in 2013 became the third-largest foreign investor in the world, while remaining a top destination for global investment (the largest outside of the OECD). Since 2013, the Chinese government took the decision to deepen major comprehensive economic reforms domestically. It has put forward several recommendations to further open trade and investment; increased the role of the market in resource allocation; and widened investment access, among others. However, China is not just focused on attracting FDI to its domestic market; it is increasingly investing

[8] V. Amendolagine, A. Amighini and R. Rabellotti, "Chinese Multinationals in Europe", in S. Beretta, A. Berkofski and Lihong Zhang (Eds.), *Understanding China: An Exploration of Politics, Economics, Society, and International Relations*, Springer, 2017.

abroad as part of a comprehensive growth strategy. Although still small in terms of outstanding investment stock over the world total (only slightly more than 2%), it is one of the largest investors worldwide in terms of annual flows and became the largest investor in the US in 2014. The European Union (EU) is also a major destination worldwide for Chinese firms investing abroad.

Because China as a consumer market has been growing in importance for a vast number of firms in many sectors, being able to access that market through exports or local production is vital for many multinational firms. As Chinese regulators have cleverly linked market access to the transfer of knowledge or technology to local firms, the selective openness approach, in fact, corresponds to a rather restrictive FDI regime. This is consistent with China ranking 59th of 62 economies in the 2016 OECD FDI Restrictiveness Index, with the lowest scores in transportation equipment, radio and TV broadcasting, media, telecommunications, and fisheries; and among the bottom ten scores in 30 of the 42 sectors assessed[9].

This highly restrictive regime for the inward FDI has not changed during President Xi Jinping's first term started in 2013, despite the fact that some sectors were opened to foreign capital including finance, some services, advanced machinery, and the environment. At the same time, other sectors were made more difficult to access or operate through licencing requirements, fiscal disadvantages, forced technology transfer, and an increasing presence of Party officers in foreign affiliates. Many foreign firms in China sense that, unlike in the past, they are not welcome anymore, even more so in sectors in which China's industrial policy under the Made in China 2025 plan aims at acquiring technological leadership.

Despite recent statements by President Xi Jinping (at the recent 19th Party Congress) that China will encourage more

[9] M.J. Enright, *To succeed in China, focus on interests rather than rules*, Columbia FDI Perspectives, Perspectives on topical foreign direct investment issues, no. 225, 7 May 2018.

inbound and outbound FDI, decreasing openness seems to be the more likely scenario for the inward FDI regime in China, with increasingly differential treatment for domestic versus foreign companies. Possible exceptions could be those sectors where Chinese firms are still rather low on the learning curve and therefore need to forge productive and technology alliances in order to upgrade (such sectors include green technologies, agri-food, luxury goods, advanced machinery).

More recently, the Belt and Road Initiative has helped to consolidate Beijing's image as a net direct and financial investor abroad. Launched by Xi Jinping in 2013 with the aim of connecting Asia, Africa, and Europe, the BRI will build 6 corridors of land and sea transport along 68 countries (65% of the population, 40% of world GDP), in addition to having a very strong infrastructure component, outlining the international projection of Beijing. Since the Belt and Road Forum held in Beijing on 14-15 May 2017, increasing Chinese investments along the routes of the New Silk Roads has led to a Sino-centric vision of globalisation: 900 new infrastructure projects, almost 1000 billion investments, 780 billion dollars generated by the exchanges with the 60 countries involved, 200 thousand new jobs. Numbers that confirm that it is a great geo-economic plan, shared and inclusive, destined to transform Eurasia. The bulk of the investments take place outside of Europe, in Asia and Africa.

Chinese investments in the world have increased dramatically, from US$55.90 billion in 2008 to US$196.15 billion in 2016. But concerns about the stability of the financial system have led the Chinese authorities to tighten capital outflows. The Chinese acquisitions abroad in 2017 recorded a sharp slowdown (targeted by private conglomerates who are indebted to the unbridled shopping abroad: the latest victim is the founder of the giant Anbang, Wu Xiaohui, sentenced to 18 years in prison). According to data by the Rhodium Group, Chinese direct investment in the United States declined by 35% in 2017, to US$30 billion; in Europe, the decline was 22%. In the golden

year of 2016, investments had reached US$183 billion, and acquisitions had amounted to 225 billion. Chinese investments in Europe from 2010 to 2016 have gone from 20 to 35 billion dollars. In 2016, Italy was confirmed as the third European destination country for investment in Beijing, with US$12.84 billion in stocks. The Chinese invest in Europe above all to acquire know-how and transfer technological skills to China, which needs it to make the leap towards quality manufacturing and become a leader in the technologies of the future.

For some time, there has been an uprising against the voracity of Chinese investments and the lack of transparency in procurement rules. On the shared understanding of the concepts of "level playing field", environmental and financial sustainability of investments in the BRI framework – contained in the final declaration of the 2017 Forum – Europe is in turmoil. France and Germany are on a war footing (interesting to note that the German Siemens has opened an office in Beijing to study the Silk Road). That the climate was not the best had already emerged at the time when the European Commission had blocked the Hungarian project of the ultra-fast railway line that was to unite Belgrade and Budapest. A stalemate ended earlier this year when the public call for bids according to European rules for the award of this project, which is entirely financed by the Chinese, was republished. The anti-predatory shield to defend Europe's strategic interests, presented by Juncker in September last year – strongly desired by Germany, France, and Italy, especially after the controversial Chinese acquisition of Kuka – meets the favour of most EU countries. Excluding – of course – Hungary and Greece: the two countries with which China, in the BRI framework, is doing more business.

The confirmation comes from a recent survey by the Bloomberg agency, which reveals how at least 15 of the 28 EU countries support the framework regulation on investment screening, which awaits the launch of the European Parliament to become law (although it will not be legally binding). In the last ten years, China, writes Bloomberg, has invested

approximately 318 billion in Europe, acquiring high-tech infrastructures and companies; more than the amount invested in the United States. Europe is committed to protecting its strategic assets (Chinese investors need know-how, above all). In April 2018, twenty-seven of the twenty-eight ambassadors of the European Union countries in Beijing launched a harsh criticism of the Silk Road, which "goes against the liberalisation agenda of trade in the European Union and pushes the balance of power in favour of Chinese companies that benefit from subsidies", in a report taken by the German daily Handelsblatt. The support of Hungary alone would have been lacking in the report.

In a report on the state of the art of projects in eight countries, published by *Asia Nikkei* joint with the *Center for Strategic and International Studies*, three critical aspects emerge:

- the first concerns the delays that lead some projects into long-term stalemates, making their costs rise (this is the case of the 6 billion Indonesian railway of dollars, similar cases are also found in Kazakhstan and Bangladesh);
- the second concerns the excessive debt exposure of some countries towards China (Pakistan, Sri Lanka, Maldives, and Laos). Pakistan and Sri Lanka have long understood that they have fallen into what analysts call the Chinese "debt trap", although new infrastructures are destined to improve the efficiency and potential of local markets;
- the third concerns the concerns of some countries – India in the lead – on the risk that the Chinese presence, perceived as a colonial threat, calls into question territorial sovereignty.

The important question today is whether China is really willing to promote globalisation inspired by multilateralism or if it is actually working towards the transformation of world interdependence as we know it, in order to establish what has been labelled "globalisation with Chinese characteristics".

In answering this question, the BRI looks much more like a framework for organising and financing Chinese investment abroad, and one that is leading to the economic and financial dependence of many recipient countries on China.

Conclusion

Will China support increasing openness and global interdependence or will it instead leverage on the increasing world's dependence to gain more voice in the global economic order?

The answer depends on the extent to which China will adhere to and comply with international rules and standards, or instead will be increasingly active in setting her own. On whether China will posit itself as a defender of multilateralism or as an advocate of a new wave of global integration, one that partly rewrites the rules of engagement in the international economy towards a new model of economic globalisation detached from political and cultural openness. Each of these aspects will be covered in the next chapters.

2. Free Trade with Chinese Characteristics

Shannon Tiezzi

With the emergence of "America First" protectionism in the United States, China under Xi Jinping has sought to position itself as the world's foremost defender of globalisation and free trade. This is something of a paradox, as China has many market restrictions of its own that have long plagued foreign investors. With that in mind, what exactly is the Chinese definition of free trade, and what sort of globalisation is the Chinese government supporting?

Speaking at the 2017 World Economic Forum in Davos, Switzerland, Xi pledged that:

> China will vigorously foster an external environment of opening-up for common development. We will advance the building of the Free Trade Area of the Asia Pacific and negotiations of the Regional Comprehensive Economic Partnership to form a global network of free trade arrangements[1].

That follows a similar promise in the communiqué issued after the Third Plenary Session (or Third Plenum) of the 18th Central Committee of the Chinese Communist Party (CCP). According to the communiqué, "To adapt to the new trend of economic globalisation, we must promote domestic openness together with openness to the outside world… and foster new advantages in participating in and leading international economic cooperation and competition at a faster pace, to promote

[1] The State Council Information Office, People's Republic of China, "Full Text: Xi Jinping's Keynote speech at the World Economic Forum", 6 April 2017.

reform through opening up"[2]. To this end, the communiqué listed "speeding up the construction of free trade zones" as a "major task"[3].

China is in the midst of a new wave of free trade negotiations. Six of China's 13 FTAs with external partners were signed after the Third Plenum communiqué was issued in 2013[4]. China's goals in pursuing these FTAs are often more political than economic. Even China's financial goals are in many ways unique, and sometimes at odds with the free trade aspirations of developed economies.

China's Free Trade Agreements: An overview

As of April 2018, China has signed bilateral Free Trade Agreements (FTAs) with 12 other states, as well as an agreement linking China with the ten member states of the Associations of Southeast Asian Nations (ASEAN). Beijing began its foray into FTAs soon after acceding to the World Trade Organization (WTO) in 2001; its first, the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation, was inked in 2002 (although the establishment of the China-ASEAN free trade area would not come until 2010). From 2006-2011, China signed six more FTAs (with Pakistan, Chile, New Zealand, Singapore, Peru, and Costa Rica). Since Xi Jinping came to power in late 2012, China has signed an additional six agreements (with Switzerland, Iceland, the Republic of Korea, Australia, Georgia, and the Maldives). Eight more are under negotiation.

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[2] "Communique of the Third Plenary Session of the 18th Central Committee of the Communist Party of China", China.org.cn, 15 January 2014.

[3] Ibid.

[4] This paper focuses on China's free trade strategy with regards to foreign partners; thus China's "Closer Economic and Partnership Agreements" with the special administrative regions of Hong Kong and Macau will not be discussed. I will also not discuss the "Economic Cooperation Framework Agreement" with Taiwan, as Beijing considers this to also be a variant of an intra-China agreement.

China is currently negotiating upgrades to its FTAs with Pakistan, Singapore, and New Zealand. It is also pursuing multilateral agreements, most notably the Regional Comprehensive Economic Partnership (RCEP) (a 16 party framework involving the ten ASEAN member states and the six countries that have separate FTAs with ASEAN), but also a trilateral FTA with Japan and the Republic of Korea. Other negotiating partners include the Gulf Cooperation Council, Israel, Norway, Mauritius, and Moldova; joint feasibility studies are underway with Colombia, Fiji, Nepal, Papua New Guinea, Canada, Bangladesh, Mongolia, Panama, and Palestine. The growing list of actual and potential FTA partners is in keeping with China's stated desire to "speed up" implementation of its FTA strategy, as decreed in 2013 at the Third Plenum.[5]

Over the past 16 years, China's approach toward FTAs has evolved. The ASEAN FTA, for instance, is widely seen as being politically, rather than economically motivated, with the goal being to assuage fears among Southeast Asian neighbours that China's WTO accession would have negative economic consequences.

Over the past 16 years, China's approach toward FTAs has evolved. The ASEAN FTA, for instance, is widely seen as being politically, rather than economically motivated, with the goal being to assuage fears among Southeast Asian neighbours that China's WTO accession would have negative economic consequences[6]. This agreement was also markedly cautious, perhaps not surprising for China's first foray into free trade negotiations. The FTA was a phased agreement, beginning with an Agreement on Trade in Goods (2004), followed by agreements on services (2007) and investment (2009) before culminating in the establishment of the China-ASEAN Free Trade Area in 2010. Even now, however, the tariff reductions have not entirely

[5] "Communique of the Third Plenary Session…, cit.

[6] Yang Jiang, "China's Pursuit of Free Trade Agreements: Is China Exceptional?", *Review of International Political Economy*, vol. 17, no. 2, 2010, p. 251.

taken effect; the FTA allows for exemptions for sensitive goods (as defined by each country) until 2020[7].

The ASEAN FTA provided a model for China's early wave of FTAs: low ambitions and a cautious approach, beginning with goods before moving on to services and investment provisions in separate stages[8]. China's next two FTAs – with Chile and Pakistan – also used a "step-by-step" approach, focusing on reducing tariff barriers to trade in goods before expanding to address services years later[9]. Subsequent agreements, starting with New Zealand in 2008, shifted to a comprehensive approach, addressing goods, services, and investment at the same time.

The ASEAN FTA provided a model for China's early wave of FTAs: low ambitions and a cautious approach. Subsequent agreements, starting with New Zealand in 2008, shifted to a comprehensive approach, addressing goods, services, and investment at the same time.

While China's approach to FTAs has matured considerably, a report from the US-China Economic and Security Review Commission (USCC) finds that China still prefers a tentative plan: "U.S. agreements tend to cover more product categories and are negotiated from the start with as comprehensive a list as possible. China prefers to start with a much narrower list, and expands it if necessary"[10]. China is still slowly increasing the scope and ambition of its FTA approach. As Chen Wenling, Chief Economist at China Center for International Economic Exchanges, put it in comments to *People's Daily Online*, China must gain "mature experience" while moving forward with FTAs so that it can

[7] N. Salidjanova, "China's Trade Ambitions: Strategy and Objectives behind China's Pursuit of Free Trade Agreements", U.S.-China Economic and Security Review Commission, 28 May 2015, p. 8.

[8] B. Mercurio, *China's Trade Strategy: Work in Progress*, China Policy Institute Analysis, China Policy Institute, 17 November, 2016.

[9] N. Salidjanova (2015), pp. 9-11.

[10] Ibid., p. 17.

adapt to "higher standard rules for trade and investment"[11].

Perhaps because of its experimental approach to FTAs, China favours negotiating with smaller and/or less developed economies, which tend to be less demanding. Under these circumstances, the process can move extremely quickly, perhaps troublingly so. China moved from opening negotiations to signing an FTA with Georgia in a year and a half[12]. China's agreement with Pakistan progressed at a similar speed. With the Maldives, the process moved from a feasibility study to a signed FTA in under three years[13], despite protests from the Maldivian Parliament that they had not been given a chance to review the agreement before signing fully[14].

FTA negotiations with developed countries have been a much slower process, with these partners raising substantial concerns about market access. For China and Australia, the process took over ten years, with negotiations starting in May 2005 and the FTA not signed until June 2015[15]. The China-Republic of Korea (ROK) FTA saw a feasibility study launched in November 2006 and an agreement finally signed in June 2015[16].

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[11] Li Jingrui and Yuan Bo, "中国已签约14个自贸区 十三五期间将加快推进自贸区进程", *People's Daily Online*, 26 February 2016.

[12] "China and Georgia Officially Launch the Free Trade Agreement Negotiations", China FTA Network, Chinese Ministry of Commerce, 14 December 2015; "China and Georgia Officially Seal FTA", China FTA Network, Chinese Ministry of Commerce, 15 May 2017.

[13] "China, Maldives Launch Feasibility Studies on Free Trade Area", China FTA Network, Chinese Ministry of Commerce, 11 February 2015; "China and Maldives Sign the Free Trade Agreement", China FTA Network, Chinese Ministry of Commerce, 8 December 2017.

[14] "China-Maldives free trade deal rushed through parliament", *Maldives Independent*, 30 November 2017.

[15] "China-Australia FTA: Overview", China FTA Network, Chinese Ministry of Commerce; "China-Australia FTA Officially Signed", China FTA Network, Chinese Ministry of Commerce, 23 June 2015.

[16] "China-Korea FTA: Overview", China FTA Network, Chinese Ministry of Commerce; "China, ROK sign free trade agreement", China FTA Network, Chinese Ministry of Commerce, 1 June 2015.

The relative speed of progress on FTAs is a good sign of the complexity of the deals being negotiated. The USCC, in its report, concluded that "China has targeted smaller countries because its negotiators can use their leverage to compensate for inexperience, exert pressure where needed, and contain the damage of mistakes. Dozens of negotiating rounds – with countries well-versed in trade bargaining – have allowed Chinese officials to hone their skills for future engagement with larger countries"[17].

In a purely economic sense, there are benefits as well: once market access is secured, China is more likely to enjoy large trade surpluses once access is secured to smaller, less developed economies.

Tab. 1 - China's Trade Balances with FTA Partners

Trade Partner	Imports from China (2015) US$	Exports to China (2015) US$	China's Trade Surplus (2015) US$	Total Trade (2015) US$
Pakistan	164.4	24.7	139.7	189,2
Maldives	1.7	0.0*	1.7	1,7
Georgia	7.7	0.4	7.2	8.1
Australia	403.1	735.1	-332.0	1138.2
Republic of Korea	1012.9	1745.1	-732.2	2757.9
Switzerland	31.7	411.0	-379.3	442.6
Iceland	52.0	28.8	23.2	80.7
Costa Rica	13.3	8.3	5.0	21.6
Peru	63.5	79.5	-15.9	143.0
New Zealand	49.2	65.8	-16.6	115.0
Chile	132.9	184.4	-51.5	317.3
Singapore	519.4	275.8	243.6	795.2
ASEAN, total	2772.9	1944.7	828.2	4717.7

Note: Data from the Chinese Bureau of Statistics, *China Statistical Yearbook*, 2016. All data in hundreds of millions (US$).
*Maldives' exports to China in 2015 were US$18,000.

[17] N. Salidjanova (2015), p. 23.

China's current FTA strategy

China's approach to FTAs continues to shift in what has been dubbed the "new era of socialism with Chinese characteristics" under Xi Jinping. Free Trade Agreements are seen as necessary steps in pursuit of Beijing's political and economic goals alike. Xi touched on these goals in remarks before a 2014 study session on "speeding up the construction of free trade areas", when he described FTAs as both a "necessary choice for comprehensively deepening reform and constructing a new system of open-style economy" and an "important method for China to proactively handle foreign relations and achieve external strategic goals"[18].

The pursuit of free trade areas was made into a "national strategy" by the 17th National Congress of the CCP in 2007; the 18th National Congress of the CCP in 2012 (at which Xi was appointed the Party's, and China's, top leader) proclaimed that China would "speed up implementation of the free trade area strategy"[19]. The 2013 Third Plenum further expanded on that by specifying that the strategy would treat China's "periphery as the foundation"[20]. In his remarks at the 19th National Congress of the CCP in October 2017, Xi listed FTAs alongside support for multilateral trade agreements and the "open world economy" as part of China's engagement with global economic governance[21].

China's 13th Five Year Plan (13FYP), covering the period from 2016 to 2020, set a few more specific goals. The plan emphasises completion of FTA negotiations already underway: RCEP, the China-Japan-ROK trilateral free trade area,

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[18] "习近平：加快实施自由贸易区战略　加快构建开放型经济新体制", *Xinhua*, 8 December, 2014, Chinese Ministry of Commerce.

[19] Li Jingrui and Yuan Bo (2016).

[20] Ibid.

[21] Xi Jinping, "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era", delivered at the 19th National Congress of the Communist Party of China, 18 October 2017.

and China-Gulf Cooperation Council free trade area as well as bilateral negotiations with Israel. The document also singles out a few initiatives that are currently in more nascent stages, including a China-Canada FTA (as of this writing, negotiations have yet to begin); possible FTAs with the Russian-led Eurasian Economic Union and the European Union; and an eventual Free Trade Area of the Asia-Pacific (FTAAP), a long-term, ambitious project that would unite all members of the Asia-Pacific Economic Cooperation platform[22]. As of early 2018, nearly halfway through the 13FYP, none of these agreements has been completed, and few have seen marked progress.

Free trade negotiations are often sidelined in China's general economic vision (for example, there was no mention of free trade areas or agreements in Xi Jinping's highly anticipated speech on economic reforms at the 2018 Boao Forum for Asia[23]). However, in late 2015 China's State Council issued a policy document devoted explicitly to the topic[24].

First, the State Council document placed China's FTA aspirations in the context of global trends. It noted an increasing number of free trade negotiations, covering an increasingly broad scope of topics. Thus speeding up the implementation of China's free trade area strategy, and pursuing more ambitious negotiations, are seen as an "objective requirement" for China as it adapts to new trends.

FTAs thus serve a dual purpose for China. First, such talks provide the impetus for domestic economic opening. Second, on the foreign policy front, pursuing FTAs allows China to

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[22] National Development and Reform Commission, "The 13th Five-Year Plan for Economic and Social Development of the People's Republic of China (2016-2020)", Central Committee of the Communist Party of China.

[23] "习近平在博鳌亚洲论坛2018年年会开幕式发表主旨演讲（实录)", Xinhua, (Xi Jinping's keynote speech at the opening ceremony of the 2018 Boao Forum for Asia), 10 April 2018.

[24] State Council Information Office, "国务院关于加快实施自由贸易区战略的若干意见" (State Council's Suggestions on Speeding up Implementation of the Free Trade Area Strategy), Document no. 69, Government of the People's Republic of China, 17 December 2015.

"deeply participate in the establishment of international [trade] rules," as the State Council document put it[25].

Regarding the actual substance of the FTA strategy, the State Council called for constructing a global network of high-standard free trade areas that is based in China's periphery, radiates along the Belt and Road, and faces the world[26]. This phrase is now the official pronouncement of strategy, repeated verbatim in government policy discussions. It makes clear the tiered nature of China's ambitions: its focus for FTAs will move from the regional to the global, with the Belt and Road as a stepping stone.

Thus, the State Council document called for an immediate focus on China's neighbouring countries or the "periphery". The "short-term" goal is to have FTAs in place with a "majority" of China's neighbours, although no target date was set. FTA negotiations with Belt and Road participants are also part of the near-term plan. The medium-term goal is a "global network of free trade areas" including China's neighbours and the Belt and Road Initiative (BRI) partners, plus "important countries" on all five continents. The State Council also floated the ideas of FTAs uniting the BRICS countries[27] and other "rising economies".

Political goals

China has long pursued a distinctively politicised approach to free trade agreements.

The selection of negotiating partners, the scope of talks, and the willingness to make trade concessions can all be influenced by political, rather than economic, calculations. While this is true for any country, China has long pursued a distinctively politicised approach to free trade agreements[28]. Beijing's Economic Cooperation Framework Agreement with

[25] Ibid.

[26] In Chinese, 构筑起立足周边、辐射"一带一路"、面向全球的高标准自由贸易区网络.

[27] Brasil, Russia, India, China, and South Africa.

[28] N. Salidjanova (2015), p. 29.

Taiwan provides the clearest example; this document was designed to be a signal of China's goodwill. Free trade deals can also be wielded as a punishment, as was the case when China suspended FTA negotiations with Norway after Chinese dissident Liu Xiaobo was awarded the Nobel Peace Prize[29].

The political aspirations of China's free trade strategy help explain the mantra of adopting the "periphery as the foundation"[30] for China's free trade strategy. As Chinese President Xi Jinping explained in December 2014, pursuing FTAs with neighbouring countries is a way to ensure "closer cooperation, more convenient exchanges, and more intermingled interests"[31]. Left unspoken is the hope that increased economic cooperation, particularly with smaller partners, can lead to economic dependence that cements Chinese influence over other states[32].

The political aspirations of China's free trade strategy help explain the mantra of adopting the "periphery as the foundation" for China's free trade strategy.

Indeed, China's free trade agreements with smaller states, which are of marginal importance for Beijing economically, should be viewed mainly through this political lens.[33] FTAs with Pakistan, the Maldives, and Georgia provide little benefit to China's economy (see Table 2), but help boost political

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[29] Ibid., p. 31.

[30] "习近平：加快实施自由贸易区战略　加快构建开放型经济新体制", Xinhua, (Xi Jinping: Speed up the implementation of the free trade area strategy; speed up the construction of an new system of open economy), 8 December 2014.

[31] Ibid.

[32] This relationship is widely taken as fact, and Beijing itself often uses economic tools to achieve political ends. Evidence is mixed, however, as to whether economic dependence actually translates to political influence, however. See S.L. Kastner, "Buying Influence? Assessing the Political Effects of China's International Trade", *Journal of Conflict Resolution*, vol. 60, no. 6, September 2016, pp. 980-1007.

[33] S. Tiezzi, "The Politics Behind China's Free Trade Strategy", *The Diplomat Magazine*, Issue 42, May 2018.

goodwill – and possibly foster dependence – in friendly states situated in geostrategic locations. The varying dates of these agreements – Pakistan was one of China's first FTA partners, while the Maldives and Georgia are the two most recent – demonstrates that this political motivation is one of the few constants in China's free trade strategy over the past decades[34].

Tab. 2 - FTAs Partners' Share of Chinese Trade

Country	Total Trade Volume with China (2015) US$	% of China's Total Trade (2015) US$
Pakistan	189.2	0.48
Maldives	1.7	0.00*
Georgia	8.1	0.02
Australia	1138.2	2.88
Republic of Korea	2757.9	6.98
Switzerland	442.6	1.12
Iceland	80.7	0.20
Costa Rica	21.6	0.05
Peru	143.0	0.36
New Zealand	115.0	0.29
Chile	317.3	0.80
ASEAN, total	4717.7	11.93
All FTA Partners	9933.1	25.13

Data from the Chinese Bureau of Statistics, China Statistical Yearbook, 2016.
All data in hundreds of millions (US$).
*The Maldives accounted for 0,004% of China's total trade in 2015.

This political calculation gained new importance with the rise of the Belt and Road Initiative as China's central foreign policy endeavour. First proposed by Xi in fall 2013, the BRI has

[34] B. Mercurio (2016).

expanded to include a network of infrastructure, trade, and cultural projects spanning the entirety of the Eurasian continent and beyond. The BRI is an attempt to forge a new economic order in which all roads lead to China, and the offer of free trade talks is one of many ways Beijing can shower its largesse on states that choose to embrace the project. The focus on pursuing FTAs with BRI participants stems from Xi himself[35], and, as noted above, is now an official tenet of China's policy. Ongoing negotiations with the Gulf Cooperation Council, Sri Lanka, Israel, Mauritius, and Moldova all fit into the BRI rubric, as do feasibility studies underway with Bangladesh, Fiji, Mongolia, Nepal, and Papua New Guinea.

According to Chen Wenling, creating a network of free trade agreements among BRI participant nations is a key part of developing China's free trade strategy[36]. Chen proposed pushing forward a BRI free trade area to create an integrated market along the entire Belt and Road.[37]

In addition to pursuing gains in bilateral relationships, China's FTA strategy is also designed to secure Beijing's role in global trade governance. In this sense, China's decision to "speed up" its free trade strategy, particularly the pursuit of mega-agreements like RCEP, is a direct response to other multilateral deals underway that exclude China – most notably the Trans-Pacific Partnership (TPP). Though the Trump administration has since withdrawn the United States from that agreement, much of China's current FTA strategy was first articulated when the former Obama administration began actively seeking to "write the rules of the global economy" (and prevent China from doing the same)[38].

China is undeniably wary of the TPP. The 13th Five Year Plan, in fact, called "regional high-standard free trade regimes" a "challenge"

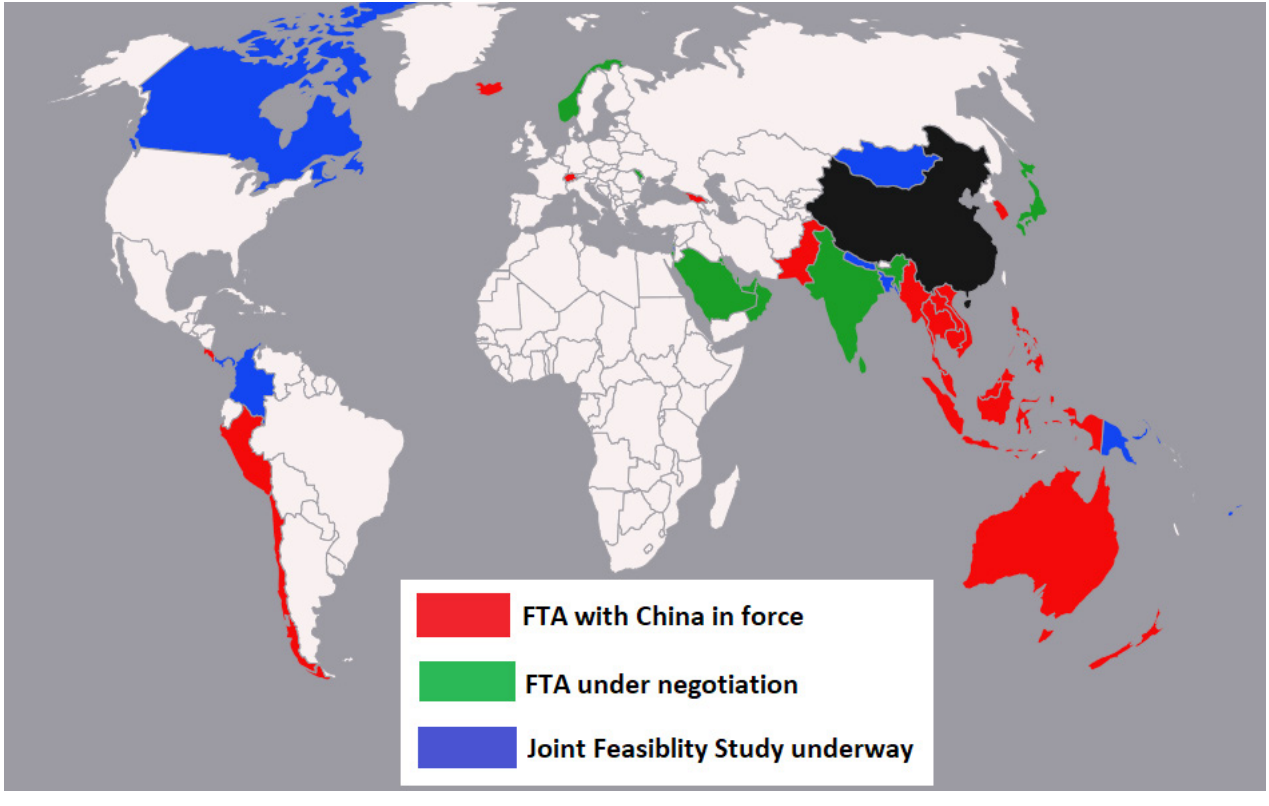
[35] Xinhua (December 2014).

[36] Li Jingrui and Yuan Bo (2016)

[37] Ibid.

[38] "Statement by the President on the Trans-Pacific Partnership", White House Office of the Press Secretary, 5 October 2015.

Fig. 1 - Map of China's Current and Prospective FTA Partners



for the "multilateral trading system"[39]. Beijing's response, though, has been to pursue its regional free trade agreements, most notably RCEP, but also other configurations that have yet to see much progress (including Free Trade Area of the Asia-Pacific – FTAAP[40]).

Xi declared in 2014 that "we cannot be spectators or followers but must be participants and leaders" in the race to conclude free trade partnerships[41]. Doing so will not only increase China's international competitiveness, Xi argued, but "put forward more of a Chinese voice and pour more Chinese elements into the creation of international rules"[42].

Economic aspects

Of course, part of China's (or any state's) motivation for seeking a say in global trade regimes is to promote rules and norms that benefit its economic interests. China aims to advance a range of financial interests through free trade negotiations. Some of these interests (opening up new international markets for domestic companies, for example) are shared by all free trade negotiators around the world. Others, however, are more unique to China. Equally important are the areas where China does not want FTA negotiations to impinge upon what it sees as national security concerns.

The most obvious economic goal for China's FTAs is to increase Chinese companies' access to foreign markets and to push forward the Going Out plan.

The most obvious economic goal for China's FTAs is to increase Chinese companies' access to foreign markets. Xi has pointed out that FTAs will help Chinese enterprises open up new international markets, and thus push forward the Chinese government's "Going Out" plan[43]. In Xi's words, China should

[39] "The 13th Five-Year Plan for Economic and Social Development of the People's Republic of China (2016-2020)".
[40] "Chinese president proposes Asia-Pacific Dream", Xinhua, 9 November 2014.
[41] Xinhua (December 2014)
[42] Ibid.
[43] Ibid.

develop from a "major trading country to a powerful trading country" through the expansion of free trade partnerships[44]. Using FTAs to diversify markets for Chinese exports became especially important in the wake of the global financial crisis when demand from the United States and Europe dropped[45].

China's leaders also hope to use the reform commitments that will be required by free trade partners to push forward their domestic reform program. The State Council document advised that FTA negotiations could help boost China's "level and quality" of economic opening, and thus were an important piece of the next round of "opening up"[46]. In the 1990s, China used its ongoing accession talks with the WTO for a similar purpose[47]. Xi has specifically spoken of using "bold" and high-quality FTAs to open China's services sector, with the end goal of increasing China's competitiveness in the services[48]. That, in turn, is a key goal of China's overall economic transition.

China has also used FTAs to incentivise trade partners to recognise it as a market economy officially. New Zealand, Australia, and Iceland were all required to do so before entering free trade negotiations with China[49]. This requirement is a key reason why no European Union member country can begin FTA talks with China, as the EU has refused to grant China market economy status (much to Beijing's dismay)[50].

China has also used FTAs to incentivise trade partners to recognise it as a market economy officially.

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[44] Ibid.

[45] Li Xiaojun, "China's geoeconomic strategy: China as a trading superpower", *IDEAS reports - special reports*, N. Kitchen (Ed.), LSE IDEAS, The London School of Economics and Political Science, 2012.

[46] State Council's Suggestions on Speeding up Implementation of the Free Trade Area Strategy…, cit.

[47] N.R. Lardy, "Issues in China's WTO Accession," Brookings Institution, 9 May 2001.

[48] Xinhua (December 2014).

[49] N. Salidjanova (2015), pp. 9-12.

[50] H. Von Der Burchard, G. Paravicini, and J. Hanke, "Europe and China: The

More recently, China has shown an increasing interest in securing protections for Chinese investors abroad. China's early FTAs focused solely on goods and tariffs; later, in its 2013 deals with Iceland and Switzerland, China broadened its focus to include more of an emphasis on investment[51]. This shift happened alongside the promulgation of the Chinese government's "Going Out" and "Made in China 2025" policies. With more Chinese companies looking to invest overseas, Beijing was increasingly interested in negotiating protections in and access to foreign markets.

However, Chinese investments, particularly in high-tech industries, are drawing scrutiny from the United States[52] and Europe[53]. These investments blur the line between financial and government interests, as many of the companies involved are either state-owned or have strong links to the CCP. Plus, Chinese companies are especially keen on investing in high-tech industries targeted for advancement in the "Made in China 2025" strategy, further increasing concerns that these business deals are being driven by a foreign government seeking technological advantage. The ensuing pushback, including recommendations of more stringent review processes for investment deals in both the United States[54] and Europe[55], only increased China's interest in including investment protections in FTA talks.

This is more of a concern in Chinese trade talks with more developed partners. With Australia, for instance, China used FTA negotiations to seek concessions on security reviews of

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uneasy truce", *Politico*, 31 May 2017.

[51] Xiaoming Pan, "China's FTA Strategy", *The Diplomat*, 1 June 2014.

[52] Chinese Investment in Critical U.S. Technology: Risks to U.S. Security Interests, Council on Foreign Relations, 16 October 2017.

[53] J. Seaman, M. Huotari, M. Otero-Iglesias (Eds.), "Chinese Investment in Europe. A Country-Level Approach", European Think-tank Network on China, December 2017.

[54] "U.S. tech companies win changes in bill to limit China's access to technology", *Reuters*, 15 March 2018.

[55] F. Stevens, "Europe Ponders How to Curb China's High-Tech Buying Spree", *The Diplomat*, 16 February 2018.

Chinese investments. Beijing sought both to lower the investment threshold that would trigger a review by the Australian Foreign Investment Review Board and to exempt state-owned enterprises from coming under an automatic review. Australia made a concession on the first issue, but not the second[56].

Alongside the economic goals China has for opening, however, equally important are considerations of where China does not want to allow foreign competition. Large areas of China's economy remain closed to foreign companies due to China's "long lists of so-called sensitive and highly sensitive products"[57]. In its FTAs, China tries to refrain from expanding its commitments past those already made in the WTO accession agreement. Barring that, China will "restrict advanced provisions to certain sectors, by avoiding detailed legal language or placing them in a separate document, such as a memorandum of understanding"[58].

Alongside the economic goals China has for opening, however, equally important are considerations of where China does not want to allow foreign competition.

When political and economic goals collide

China's desire for government control over its economy can be at odds with its push for global trade leadership. However, as China's government itself has noted, the global trend is moving toward higher-standard agreements that would go farther in reducing government control than Beijing is comfortable with. As China seeks to position itself as a global leader, will it also be forced to show more interest in hitherto neglected topics like intellectual property (IP), labour rights, and environmental regulations?

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[56] N. Salidjanova (2015), p. 11.

[57] B. Mercurio (2016).

[58] N. Salidjanova (2015), p. 18.

Some context is relevant here. It is true that "China's FTAs contain sparse offerings on goods-related topics such as trade facilitation, government procurement, competition, labour and environment"[59]. However, when compared to other large developing countries – such as its fellow BRICS members – China's stance is more advanced and ambitious[60]. China's natural course of development is slowly bringing its free trade interests more in line with global leaders'. Chinese companies create more IP that needs protection, for example, and the Chinese government is increasingly aware of the need to prioritise environmental protection alongside growth. However, the government remains extremely cautious toward any provisions that might force it to give up control over segments of either the Chinese economy or society.

The 2015 State Council document noted that FTAs around the world were not only increasing in number but scope. The document identified emphases on intellectual property protection, environmental protection, e-commerce, competition policies, and government procurement as "developing trends" in global negotiations. While it urged China to respond through more ambitious agreements, the document also cautioned that Beijing should only do so as befits China's "development level and governance capacity."[61]

Throughout the document, the State Council emphasised the importance of maintaining national security. As a result, there is a marked difference in China's degree of enthusiasm for new areas of interest in FTA negotiations around the world. While the document contains a fairly detailed outline for pursuing more advanced IP protection, for instance, its sections on environmental protection, e-commerce, competition policy, and government procurement are so sparse as to be practically meaningless. The State Council noted that China is interested

[59] B. Mercurio (2016).
[60] N. Salidjanova (2015), p. 20.
[61] State Council's Suggestions on Speeding up Implementation of the Free Trade Area Strategy…, cit.

in pursuing these emerging standards, but only in line with China's "development level and governance capacity"[62].

Given that, it becomes clear that for China to fulfil its ambition to serve as a global leader in trade, it will have to succeed in changing the emerging consensus on what constitutes an ambitious, modern free trade agreement.

RCEP: The test case

Of the FTAs currently under negotiations, China's energies are most focused on the multilateral Regional Comprehensive Economic Partnership, which is both the most ambitious agreement presently being discussed and the one closest to completion. Incorporating 16 countries[63], RCEP would be China's first mega multilateral trade pact, and for that reason, it is often framed as China's answer to the TPP. This is not entirely accurate. First, RCEP is centred on ASEAN rather than China (the negotiating partners are ASEAN plus the countries with which the Southeast Asian grouping already has FTAs). RCEP is also a key part of the regional strategies of Japan and Australia. However, as discussed previously, it is clear that China became more invested in the completion of RCEP as the TPP gained in prominence.

RCEP negotiations were launched in November 2012.[64] Since then, the grouping has missed three self-imposed deadlines for completing negotiations, in 2015, 2016, and 2017. To help try and break the deadlock, in November 2017 leaders of the 16 member countries held their first summit since

[62] Ibid.

[63] RCEP's members are the ten ASEAN states (Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) plus Australia, China, Japan, India, the Republic of Korea, and New Zealand.

[64] Association of Southeast Asian Nations, "Regional Comprehensive Economic Partnership".

negotiations began [65]; the new target is the end of 2018[66].

In mid-April of 2018, a spokesperson for China's Ministry of Commerce said that "the pace of [RCEP] negotiations is speeding up", adding that there had been substantial progress[67]. Indeed, there was some optimism after a ministerial meeting in March 2018 that the deal could be concluded by year's end[68]. However, a joint media statement issued by negotiators after the March session "recognised the divergence in the levels of ambition in some areas"[69], a nod to the ongoing difficulties.

As to be expected in such a different grouping, there are different priorities. As explained above, China would prefer a more traditional FTA framework, without additional provisions to address labour, environmental, and transparency issues. Japan, meanwhile, wants an agreement reflecting the higher standards of the TPP, while India wants an even less ambitious agreement than China does, with fewer tariff reductions[70]. Also, with the successful completion of a modified version of TPP, taking into account the US withdrawal, RCEP members who signed on to the TPP – Australia, Brunei, Japan, Malaysia, New Zealand, Singapore, and Vietnam – have less pressure to push forward with another mega trade deal[71].

The goal for RCEP, as affirmed by a joint statement issued after the November 2017 leaders' summit, is a "modern, comprehensive, high-quality and mutually beneficial economic

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[65] C. Yong, "Leaders call for greater effort to conclude TCEP talks", *Straits Times,* 15 November 2017.

[66] Kyodo, "RCEP negotiating nations now aim to conclude agreements in 2018+", *Viet Nam News,* 13 November 2017.

[67] "RCEP negotiations making progress", Xinhua, 19 April 2018.

[68] Kyodo, "RCEP negotiators make progress in Singapore as Japan pushes for year-end deal on trade pact", *Japan Times*, 4 March 2018.

[69] Association of Southeast Asian Nations, "The Fourth Regional Comprehensive Economic Partnership (RCEP) Intersessional Ministerial Meeting Joint Media Statement", 3 March, 2018.

[70] R. Mathieson, "Agreeing on RCEP – China's favorite trade deal – set to drag into 2018", *Japan Times*, 14 November 2017.

[71] Ibid.

partnership agreement negotiated as a single undertaking that would support an open and enabling trade and investment environment in the region"[72]. What that means in practice is open to interpretation.

According to the leaders' statement, the RCEP agreement (as it stood in November 2017) included provisions on tariffs and non-tariff barriers for trade in goods; market access for services; foreign investment; competition policies; intellectual property; and government procurement. There was no mention of environmental or labour issues, at least directly. Instead, there was a nod toward "agreed provisions which maintain the right of Participating Countries to address legitimate public policy purposes"[73].

At the same time, the leaders' statement emphasised "flexibility, including provision for special and differential treatment" according to "different levels of development"[74]. Based on the 2015 State Council document – and a long history of claiming exemptions for itself as a "developing country" – China would certainly seek to gain such "special and differential treatment" to opt out of any provisions that make Beijing uncomfortable.

RCEP provides the most precise picture of what a Chinese-led global trade framework would look like. The RCEP test case makes clear that China's FTA strategy remains focused on tariff reductions, and avoids substantial commitments to opening China's markets.

China is reportedly seeking to steer the RCEP talks toward a focus on tariff reductions, its preferred emphasis for free trade negotiations[75]. Compared to the TPP, then, RCEP as China envisions it would be a "low-quality" deal, at least in the eyes of

[72] Joint Leaders' Statement on the Negotiations for the Regional Comprehensive Economic Partnership (RCEP)

[73] Ibid.

[74] Ibid.

[75] R. Harding, T. Mitchell and M. Peel, "China and Japan vie for control of Asia trade deal", *Financial Times*, 14 March 2017.

TPP members Japan and Australia. Tokyo, in particular, wants services and investment to have equal footing alongside goods. Meanwhile, according to leaked RCEP documents, the agreement does not contain any binding provisions dealing with environmental and labour standards, unlike the TPP[76].

Foreign Minister Wang Yi made it clear China sees RCEP as a stepping-stone to bigger things, saying China hopes "to speed up the RCEP negotiation process and strive for an early agreement, to contribute to realising the greater common goal of building the FTAAP"[77]. China would also need to successfully conclude RCEP before it could focus on moving other potential projects forward, including FTAs based on the Shanghai Cooperation Organization,[78] BRICS, or (most ambitiously) the Belt and Road.

Thus RCEP provides the most precise picture of what a Chinese-led global trade framework would look like. Despite the noticeable evolution in China's free trade approach since 2001, the RCEP test case makes clear that China's FTA strategy is limited in its approach, remains focused on tariff reductions, and avoids substantial commitments to opening China's markets.

[76] S. Cossar-Gilbert, "5 Hidden Costs of the RCEP to People and Planet", *The Diplomat*, 12 October 2017.

[77] Ministry of Foreign Affairs of the People's Republic of China, "Wang Yi: Speed up RCEP Negotiation and March toward the GTAAP", 2 February 2017.

[78] Hu Yongqi and Wang Qingyun, "Li promotes SCO bank, free trade," *China Daily,* 3 November, 2016, hiips://www.chinadailyasia.com/nation/2016-11/03/content_15520700.html

3. Is China a Market Economy?

Christopher Balding

Despite the rapid growth of the Chinese economy over the past few decades, a fundamental question remains: does China have a market or a planned economy? Though seemingly simple and straightforward, this is actually a devilishly complex question depending on how one interprets the meaning of a market economy with a range of concrete to ephemeral implications.

The primary conundrum stems from how we define a market economy and in what context we refer to one. For instance, when China joined the World Trade Organization (WTO) in 2000, a compromise was reached between China and other existing members. Other countries retained discretion over whether to label China a market or non-market economy for a variety of trade remedy purposes such as in calculating dumping comparisons. However, China insists that, since end-2016, the clause in question does not allow any discretion over whether China is a market or non-market economy.

This creates an unsettling situation: China arguing not on the merits and facts that it is a market economy, but rather on the basis that there is a contractual obligation for others to treat it as a market economy irrespective of the evidence. In this instance, whether China is a market economy, though currently being contested by both sides, may focus more on contractual obligations and less on evidence of the economic structure of China. What we mean and how we intend to answer to the question of whether China is a market

China is a market economy, though currently being contested by both sides, may focus more on contractual obligations and less on evidence of the economic structure of China.

economy depends significantly on our criteria for determining what constitutes and the obligations of a market economy, and these criteria should be applied equally or near-equally to other countries.

Even within China, this question remains far from settled.

Defining the problem

How we go about studying whether China is a market economy will play a significant role in the answer we arrive at and its fundamental credibility. In other words, we need to ensure that our methodology does not predetermine the answer we arrive at. To that end, we must settle on a definition of a market economy that allows us to determine whether China qualifies as a market economy.

Here we define a market economy as a country where the state either owns, controls, or directs the primary means of production but allows the market to determine the allocation of resources and which businesses or industries succeed or fail. When studying the Chinese market status, others have focused on whether China has actually transitioned to become a free market economy rather than the legal technicalities[1].

This definition carries a number of factors beyond the obvious that are worth noting. First, state ownership of the means of production does not determine market and non-market economy classification. In too many definitions, market or non-market classification rests on what percentage of the economy or means of production is owned or produced by the state. This is an overly simplistic categorisation that overlooks key details about how the state can control markets.

Second, the state can control or direct the means of production in both market and non-market economies, but this

[1] See J. Miranda "More on Why Granting China Market Economy Status After December 2016 is Contingent Upon Whether China Has In Fact Transitioned into a Market Economy", *Global Trade and Customs Journal*, no. 5, pp. 244-250.

requires more subjective determination. Despite its unidimensional nature, state ownership gives a clear and unambiguous determination on what constitutes a market or a non-market economy. Control and direction are more ambiguous, and the line between regulating a market and directing a market can be blurred. In spite of the measurement struggles and ambiguity, this does not mean this characteristic should be omitted.

Third, market allocation does not simply mean that the state does not determine productive allocation, but that the market determines success *and* failure. Too many have arrived at the determination that China represents a market economy because it is a growing economy or engages in international trade. These again represent superficial designations about the level of state control over the economy. We want to capture whether the rules of the economy created by the state determine what is produced, how much is produced, the price of the product, and who benefits from the production. An economy cannot be considered market-driven if it does not permit transparent and fair competition, allowing firms to fail as well as to succeed.

China is a market economy tries to avoid simplistic dividing lines and takes a more holistic view.

Fundamentally, our definition and how we approach asking whether China is a market economy tries to avoid simplistic dividing lines and takes a more holistic view. While this may open the analysis up to criticism over judgements of classification of each indicator, we believe it represents a better approach accounting for factors that may be missed in top-level data analytics.

Before turning to a more empirical examination, it is important to briefly explore what we have excluded from the definition of market economy. The existence of markets does not prove or disprove whether an economy is a market-based one. China has a variety of markets but this by itself does not tell us whether China is itself a market or non-market economy. For instance, the existence of a foreign exchange market, facilitating trade in renminbi (RMB), does not tell us by its mere existence

China has a variety of markets but this by itself does not tell us whether China is itself a market or non-market economy.

whether the RMB is a market-based exchange rate or whether the government owns, directs, and controls this market.

A market is merely a place, physical or virtual, where transactions occur. Markets exist even in the most draconian non-market economies. It is a logical fallacy to argue that China is a market economy just because it has specific goods or asset markets. Simply having transaction markets, a universal condition of society, does not determine whether the economy is market or non-market based. This determination can only be made on whether the market plays the determining factor in allocative decision making.

The direct ownership of the Chinese economy

Based upon the criteria we have established, let us begin with the more formal quantitative aspects of Chinese ownership of the means of production. Starting with direct ownership and measures of output of the state and state-owned enterprises (SOEs), we see that China holds significant direct ownership and control over the means of production. National state-owned enterprises dominate the industrial landscape providing the government enormous direct control over the economy.

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To provide some perspective, the total asset base of state-owned enterprises in 2016 amounted to 155 trillion RMB or 208% of nominal GDP[2]. That same year, there were 174,000

[2] All data within this chapter is taken from WIND Data and self-created using national statistics.

state-owned enterprises concentrated in industry, transportation, and wholesale. This gives the Chinese state vast control over the economy across everything from agriculture and mining to technology: there is effectively no sector a Chinese SOE does not dominate.

Focusing on the banking sector we can see the complete dominance of the Chinese state over the economy. This sector, and the more broadly-defined financial sector, are owned primarily by state-owned enterprises. The four largest state-owned enterprise banks comprise 49% of total financial institution deposits in China. The Bank of China, the ICBC, the Agricultural Bank of China, and the Construction Bank of China are not merely linked to the state but owned and controlled by the central government. They are owned via Central Huijin Investment under the China Investment Corporation which is owned by the Ministry of Finance[3]. Not only does the central government own a controlling share in the major banks but it appoints key personnel from the chief executive officer to the board of directors and Party secretary.

Chinese state over the economy. This sector, and the more broadly-defined financial sector, are owned primarily by state-owned enterprises. The four largest state-owned enterprise banks comprise 49% of total financial institution deposits in China.

Chinese state ownership is not limited strictly to the central commercial banking sector. It extends to broader financial services and to smaller providers. National level securities houses, investment banks, and insurance providers are virtually all state-owned. Of the top ten banks by asset size in China, only one is not a state-owned bank. Provincial or city level banks are almost exclusively state owned by their local government providing local protection and deposit base.

[3] This data is available in annual reports or via WIND and other sources detailing the level of state and each level of ownership.

Though Beijing touts its record in reducing official SOE enterprise numbers, this is really more the result of misdirection than reality. Over the past few years Beijing, seeking to build national champions and to bring efficiencies to sclerotic state-owned industries with near monopolies, has merged many centrally-owned SOEs in an effort to reduce their total number. For instance, it was proudly touted in 2017, when Beijing brought the number of centrally-owned SOEs under one hundred by merging them to existing centrally-owned SOEs. While it is technically accurate that the number of centrally owned SOEs will have fallen with the merger, if anything this would increase the state's influence over the economy by further concentrating its monopolistic influence.

Finally, most of the focus of direct ownership considers only centrally-owned state enterprises. While these enterprises are the largest by asset and employment size, it is very important to note that local governments from the city, county, and provincial level own vast amounts of publicly-owned enterprises that similarly span from financial services to agriculture. By number of enterprises, local SOEs outnumber central SOEs by more than two to one. When considering the state of productive affairs, it is a major omission to focus exclusively on central state-owned enterprises to the exclusion of local enterprises.

The control of the Chinese state on firms

The Chinese state exercises enormous ownership control over the economy via channels that do not typically count as state ownership.

Too often, when considering whether China is a market economy, researchers rely strictly on data with clear dividing lines like economic output as a percentage of GDP. However, this is an error as the Chinese state has many other ways to control economic activity. It is important to understand these less quantitative channels.

The Chinese state exercises enormous ownership control over the economy via channels that do not typically count as

state ownership. Researchers err in how state ownership of the economy and output are counted. The common method is to take SOEs' output and then infer various aspects about their role in the economy. This is a fundamental error.

State-owned enterprise in China is a corporate registration classification and is therefore not indicative of the overall level of state ownership of a firm.

State-owned enterprise in China is a corporate registration classification and is therefore not indicative of the overall level of state ownership of a firm. Just as limited liability corporations, limited liability partnerships, or corporations are common forms of corporate classifications, state-owned enterprise are nothing more than a type of corporate registration in China given the appropriate owners. Many researchers therefore classify non-SOE corporate output as private output. This is an erroneous classification but leaves us in a difficult area of measurement, as non-SOE corporate registrations may be state-owned or private or some combination of both.

For instance, a non-SOE company, let us assume an LLC, may have no, some, or total state ownership and not actually be considered a state-owned enterprise. Layering on additional complexity, especially in large companies, large shareholdings are held by multiple layers of shell company holdings before arriving at the beneficial owner. In this case, seeking to obscure who is the beneficial owner, shareholdings will be held under innocuous-sounding investment firm names that are layered through multiple firms. This is common of state-ownership practices, seeking to obfuscate their holdings, as well as of wealthy families or individuals wanting to avoid scrutiny.

Another method is for firms to set up different legal entities that share offices. Consequently, when researching a firm's ownership structure, one may discover that a firm may legally have two separate shareholding parent companies who coincidentally share an identical address. In this case, many firms, especially state-owned firms, seek to separate activities into different legal

entities based upon the type of activity.

In his 2008 book *Capitalism with Chinese Characteristics*, Yasheng Huang unpacks the multi-layered complexities of estimating this obfuscated impact of Chinese state ownership. According to his estimates, the state still controls approximately 80% of the Chinese economy if we account for these various layers of state holding[4]. It is important to replace the simplistic classification of state and non-state ownership structures with a more nuanced view.

One way this error gets compounded is by assuming, for instance, that listed firms are private. A stock market listing does not delineate who specifically is the controlling shareholder. Typically, a shareholder is considered controlling if they own 50% plus 1 of the shares. However, for accounting purposes, there is a range of options that allows for a shareholder to be considered "controlling" absent this criteria. In the case of China, the state is officially considered a "controlling" shareholder in many firms where the firm is not considered an SOE.

For accounting purposes, there is a range of options that allows for a shareholder to be considered "controlling" absent this criteria of 50% plus 1 of the shares.

Take for instance HIKVision, a major manufacturer of closed circuit television and video technology including facial recognition software ranging from small business security needs to large-scale government surveillance uses[5]. They are listed on the Shenzhen Exchange and count UBS and JPMorgan as top-ten shareholders. By most measures, HIKVision would be considered a private enterprise.

However, we believe this obscures the driving force of HIKVision and how the Chinese state manages the broader economy. HIKVision is 42% owned by the China Electronics

[4] Please Yasheng Huang, *Capitalism with Chinese Characteristics: Entrepreneurship and the State*, Cambridge, Cambridge University Press 2008.

[5] We are using WIND Data and HIK reports downloaded from their website for this data.

Technology Group (CETG) and the China Electronics Technology Group Corporation's (CETC) No. 52 Research Institute. The No. 52 Research Institute used to be a group within CETG but was spun off into a separate entity. Both CETG and CETC are wholly state-owned enterprises under the Ministry of Information Industry. Additionally, other state-owned entities, including the Zhejiang provincial government and the Central Huijin Asset Management, a subsidiary of the China Investment Corporation owned by the Ministry of Finance, hold additional stakes.

These multiple layers of state ownership are more than irrelevant considerations. HIKVision lists its controlling shareholder as CETC and, given the additional stakes of key state actors, it should be clear that the HIKVision exists effectively as a state-owned enterprise even if it does not fit this classification.

If we focus just on companies where a state entity is a controlling or large shareholder, this type of control applies to large swathes of the economy. The financial sector, from commercial and investment banking to securities and insurance, remains primarily state-owned or controlled. Heavy industry from steel and coal to lighter industry like automobiles are heavily or uniformly state-controlled entities even if not classified as state-owned enterprises. Even in sectors like travel and technology the Chinese dominates. The venture capital sector in China is dominated by state-owned or controlled investment vehicles with nearly $1 trillion in assets under management held by state-owned or controlled VCs. Airlines, trains, hotels, and even tourist destinations like Disneyland or even holy Buddhist sites are state-controlled.

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There are no more recent estimates of the more broadly defined state-controlled economy beyond the 2008 estimate from *Capitalism with Chinese Characteristics*. There is, however, little reason to believe this has fundamentally changed, especially in light of the recentralisation we have witnessed since 2015. By one recent estimate, 80% of the aluminium sector is now under state control. It seems unlikely, though we do not have more recent empirical studies, that the level of state control via ownership structures has fundamentally become more market-oriented since 2008.

The level of explicit state control of the economy we refer to here covers instances where a company is not classified as a state-owned enterprise but the state owns a major or controlling shareholding in the company. In this instance, the channel of state control over the firm or economy is explicit though typically classified as private or market. This results in very different investment patterns. For instance, one study found that state-owned firms targeted strategic assets while private firms preferred large markets in which to expand[6].

There is yet another level of state control that has been exerted more recently. In the past few years, the Chinese Communist Party has moved to explicitly place control of firms under CCP auspices. In China, there is a split between the state and the Party, with the Party above the state. For instance, the title that matters in Chinese politics is the Chairman of the Party Committee. Installing Party committees in firms throughout China gives the Party both explicit and implicit control over a broader range of firms whether they are state owned, controlled, or fully private.

There are two ways in which this control plays out. First, the Chinese state has taken small, symbolic ownership stakes in key non-traditional firms. For instance, China has taken small ownership stakes of approximately 1% of market capitalisation

[6] See A. Amighini, R. Rabellotti, and M. Sanfilippo, "Do Chinese State-Owned and Private Enterprises Differ in Their Internationalization Strategies", *China Economic Review*, 2013.

in tech firms like Baidu, Alibaba, and Tencent.[7] Even though the Party does not exercise a controlling equity stake, the symbolism is not lost on other shareholders as to who is the key decision maker.

The Chinese state has taken small, symbolic ownership stakes in key non-traditional firms. For instance, China has taken small ownership stakes of approximately 1% of market capitalisation in tech firms like Baidu, Alibaba, and Tencent.

Second, the Party committees, just as they do in governance of the state, technically stand above the executive management and board of directors of the company.[8] Though this is less than a formal ownership classification or controlling shareholder stake, it is clear who directs the activities of the company. These Party Committees engage in a wide range of activity from organising Party-building activities to thought-policing but also in more tangible corporate decision-making like appointing key positions, strategy, and investment.

Both of these channels provide even less tangible – and difficult to measure – methods of government control over the economy, but they are undeniably real. Together, these three channels provide strong evidence that the Chinese government exercises enormous direct and indirect control over the means of production in every industry through state owned enterprises, state controlled enterprises, and managerial oversight of firms.

Economic structure and regulation

Whether China is a market or non-market economy, however, does not depend solely on whether the state owns and controls the firms but how it allows firms to compete in the marketplace.

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[7] "Beijing Pushes for a Direct Hand in China's Big Tech Firms", *Wall Street Journal*, 11 October 2017.

[8] "China Says Foreign Firms Welcome Benefits From Internal Communist Party Cells", *Reuters* , 19 October 2017.

Whether China is a market or non-market economy, however, does not depend solely on whether the state owns and controls the firms but how it allows firms to compete in the marketplace.

To put it another way, though government ownership is indicative of a lack of market-based competition, we cannot take this extension as a given. We must extend our analysis to unpack the economic structure and regulation of the broader economy and to understand whether China, despite the state control of firms, is in reality promoting market-based competition.

The industrial structure and regulatory state of China is not focused on increasing economic efficiency via greater competition but extending state control over the broader economy. This is not analytical speculation but rather the declared policy of Beijing coupled with policy follow-through. State ownership, the industrial structure, and the resulting regulations work in concert to prevent actual competition.

There are a couple of unique factors that require analysis. First, in most cases, major Chinese companies are owned by the regulator that oversees their business. Major Chinese banks like the Bank of China are owned by the China Investment Corporation who is owned by the Ministry of Finance. Conversely, they are regulated by the China Banking and Regulatory Commission who reports to the State Council where the Ministry of Finance oversees financially-related activities in a smaller working group.

We see similar patterns across a range of industries where regulators effectively own the companies they are supposed to regulate. In other industries, there is even less of a circuitous path for regulators to both oversee and own companies. Even at the regulatory level there is a dominant element of state control.

Second, regulators in China do not just act to enforce and create the rules of the marketplace but to manage industry. This industrial management policy of the designated regulator moves well beyond the regulatory role most conceive of in developed markets, reaching active public management of entire industries.

For instance, in most securities markets, regulators do not dictate market prices whether for mergers and acquisition on initial or even secondary offerings. In China, financial regulators have complete power to price financial products, decide whether a company should purchase another company, and on a range of other decisions in other markets.

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In the heavy industry, regulators play an even greater role. In many sectors, from aluminium and steel to others, Chinese regulators actually set output quotas and distribute them by firm and region.[9] While these quotas are actively traded in grey-market manner or disregarded in a similar fashion, regulators behave in a manner that far exceeds rule creation and enforcement.

This also extends to macro development goals created by senior leadership. Beijing lays out detailed targets, from specific industrial investment targets to a selection of the types of industries or firms they will approve for overseas acquisition targets. Though many are acquainted with the notorious GDP target, this type of targeting extends well beyond GDP. These announcements move markets directing firms to invest in new areas or regions.

For Made in China 2025, Beijing has laid out nine specific industries it wants to develop and expand. Internationally, it takes a similar approach conveying to firms investing abroad the types of acquisitions or investments it will approve and those that will be denied.

What makes this so unique is the multi-layered approach Beijing can take in ensuring its wishes and the micro-level control that follows. Because the firm Party committee sits atop executive leadership and the board of directors, the Party plays

[9] "Handan Orders 25% Steel Production Cut", *Reuters*, 30 March 2018.

a major role in ensuring directives are carried out. Because the regulators do not just create, establish, and enforce the rules created but rather manage industry, they can direct how firms behave. Then, because the state controls all financial institutions in China, they have the ability to channel capital to where they want firms to invest and produce.

The regulators in China behave in a manner far beyond traditional rule creation and enforcement.

The regulators in China behave in a manner far beyond traditional rule creation and enforcement. They actively manage industrial policy by channelling capital, making employment decisions, and mandating output in a manner that removes those decisions from market-based price and flow decisions.

In answering the question whether China is a market or non-market economy, we believe it is important to make a clear distinction between the standard market-based rule-making that frames how participants compete and the regulators imposing output, targets, flow, and price management that assume active industrial and state economic management roles. Chinese regulators exist in a space that gives them profound control not just over the rules of the economy that market participants recognise but shift them into state control of the economy dictating output, investment, allocating capital and labour.

Is China a market economy?

Based upon our definition of market economy, which moves beyond the simple metric of state ownership of productive assets, we believe it is perfectly reasonable to conclude that China is *not* a market economy.

It is important to remember that we define a market economy as a condition in which the state either owns, controls, or directs the primary means of production but allows the market to determine the allocation of resources and which businesses or industries succeed or fail. This explicitly requires that we

incorporate additional metrics to study whether the state controls the economy rather than allowing it to exist as its own entity acting instead primarily as rule-maker and enforcer. One-dimensional analyses that fail to account for the layers of complexity overlook the variety of levels created by the Party to control the economy.

If we review the state-owned enterprises, direct ownership of controlling and non-controlling shares, and regulatory action in China we see overwhelming evidence of a non-market economy. The Chinese state, at central and local levels, controls a disproportionate share of the productive assets. If we expand this to cover state ownership of private firms not considered state-owned, we see more evidence that the Chinese state exercises vast control over firms that are not considered state-owned firms. If we expand this further to the political and policy use of state power to control the economy, we see that the state exercises authority well beyond the traditional regulatory remit.

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It is important that in this exercise we do not confuse the existence of a market with a market economy. For instance, North Korea has markets where goods or services are exchanged. The existence of a market as a physical or virtual space does not mean the market is allowed to determine prices and flows, allocating capita and labor to their most productive uses. All economies have markets but not all economies are market economies.

A common point of emphasis when arguing that China is a market economy focuses on financial markets like stocks, bonds, and commodities. These markets exist but that does not mean China is a market economy or that these markets fulfil the role of markets in price discovery and capital allocation.

Virtually all of the largest listed companies in China are explicit state companies even if they are not registered as SOEs. Research on Chinese stock markets find that price discovery, a primary quality of stock markets, is very low due to the above-mentioned non-market characteristics.

For instance, virtually all of the largest listed companies in China are explicit state companies even if they are not registered as SOEs. Research on Chinese stock markets find that price discovery, a primary quality of stock markets, is very low due to the above-mentioned non-market characteristics. The bond market is dominated by state-owned and linked firms, not to mention the wide range of quasi-public entities from local government-backed infrastructure projects to policy banks. Even in the commodity markets, regulators have publicly stated it is the job of the financial sector to support commodity prices to avoid deflationary pressures.

The markets exist, but that does not mean key market characteristics like free flows and price discovery exist as well. Simply having markets does not make China a market economy. Too many confuse the existence of markets with a market economy. Distinguishing between the existence of markets and the control the state has over the market to determine allocative, output, flow, and prices guides the determination.

Finally, the bilateral agreement on China's entry into the World Trade Organization contains contentious language about China gaining market economy recognition. This is where the discussion about whether China is a market economy most frequently occurs. We do not take a position about any legal agreements or the language of the WTO accession documents[10]. This paper is focusing solely on the economic logic of whether empirically China is and behaves as a market economy.

[10] Lawyers will have a different perspective based upon their reading of legal standards for findings rather than economic analysis. See for a good legal analysis, M. Flynn, "China: A Market Economy", *Georgetown Journal of International Law*, 2017.

Chinese economy impact on the global economy

By some metrics, the Chinese economy is now the most important economy in the world. It is responsible for a major share of global growth, the largest trading country in the world, and the majority consumer of commodity inputs. Given the influence that China exerts by its mere size, what impact will awarding the economic market status to China have on other countries, and on the type of globalisation they seek more broadly?

By some metrics, the Chinese economy is now the most important economy in the world. It is responsible for a major share of global growth, the largest trading country in the world, and the majority consumer of commodity inputs.

The post-World War II order was built upon the belief that greater economic and financial openness and democratic integration was good for countries. The collapse of the Soviet Union and communist allies in 1989 prompted well-intentioned theories of democratic peace and debates focused on how fast reforms should take place given the inevitability of democratic capitalism. The World Trade Organization accession in 2001 made it seem inevitable to most that China would evolve into a democratic capitalist state, and that authoritarian communism would ultimately fail.

Though China never officially or unofficially left its authoritarian communist roots behind, it did nothing to dissuade the idea that it would evolve into a capitalist democracy. Over the past few years, Beijing has waged a dual-track propaganda message intended for separate and distinct audiences. Internationally, Chinese

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Leaving propaganda aside, the reality is a Chinese Communist Party focused on controlling an increasing amount of economic activity, flows, and prices is the antithesis of the post-World War II international institutions and agreements. China is promoting a system of globalisation that relies on might over adherence to the rule of law, negotiated agreements, and norms.

There is a wealth of evidence to support this argument. From punishing Norway for awarding a Nobel Prize to a Chinese dissident, to refusal to implement terms of its WTO accession document, China has a fundamentally different view-point of the role major states should play and the philosophical focus of the international liberal order.

Anne-Marie Slaughter argued in a seminal paper that the post-World War II order was shaped by the United States projecting its institutions, norms, and values upon international institutions[11]. China is doing the same, projecting its values, institutions, and norms, in an attempt to influence the functioning of the international order and its accompanying institutions. Given its domestic political institutions, lack of rule of law, and anti-market democratic norms, there is little reason to believe China will promote them internationally.

Conclusion

Given the range and strength of evidence, we believe China is a non-market economy. The level of direct ownership of enterprises, its controlling interest, and non-traditional active regulatory management of allocation, flows, and prices qualifies China as such.

[11] See J.G. Ruggie (Ed.), "Regulating the World: Multilateralism, International Law, and the Projection of the New Deal Regulatory State", *Multilateralism Matters*, 1992.

The concern in Europe and the United States over Chinese restrictions from investment and trade to administrative measures matters significantly. If China wants to be considered a leading global economy, it will have to reconsider its role and market openness to the outside world.

4. China in Global Technology Governance: Experimentation, Achievements, and Uncertainties

Yingqiu Kuang

Since China's accession to the World Trade Organization (WTO) in 2001, trade disputes between China and the United States have arisen over a variety of issues, ranging from the US deficit with China to China's currency peg and the two countries' prolonged battle for intellectual property (IP). However, what makes the ongoing US-China trade war in 2018 a watershed moment is that for the first time, technology has emerged as an early battleground between the two largest trade nations in the world. Following President Trump's threat to impose punitive tariffs on a list of targeted Chinese goods, the US Department of Commerce made a first strike in April that banned ZTE, a Chinese state-owned enterprise and an international leader in the global information technologies (IT) industry, from purchasing technological components made by American firms. This move immediately ceased all of ZTE's major operations in the American market. The fear that China will dominate crucial technologies is now more widespread than ever in Washington. Many US leaders, like other political leaders from the developed world, believe that China's ambitious technology and industry plan, dubbed "Made in China 2025", poses a major threat to their global leadership

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in high-tech sectors. China's technological advancement, together with its political and economic institutions at home, is now highly likely to reshape the global technological and economic order. In this context, technology standard-setting becomes a key tool in the race to technological and economic supremacy.

This chapter seeks to explain this change and survey China's role in global technology governance. It asks: how have technologies been regulated in the international arena, and who controls the power to shape the global governance structure? How is China evolving in the global technology regime? What are China's achievements and limits? Most importantly, why has China, which was long known as a "catching-up" state and a technology follower, managed to secure and promote some of its preferred standards in global technology rules?

When we trace China's efforts in international standard-setting over the past decade, two interesting patterns emerge. First, China's behaviour has demonstrated its strong commitment to current global rules and institutions that pertain to technology. Beijing's ratification of the WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIP) enhanced its participation in key international standard-setting organisations, and a series of domestic reforms of intellectual property rights and standard-setting institutions are outstanding examples of progress. Yet simultaneously, China's evolution in global technology governance entails two assertive moves. First, the establishment of new national standards in the country and the internationalisation of certain indigenous Chinese technologies as alternative global standards have increased competition and fragmentation in the global technology market. Second, there is a broad trend in China toward a new IP norm. This new practice provides less protection of embedded IP in technology standards than the western convention; rather, it calls for inexpensive licensing of embedded IP, in exchange for market

expansion of their indigenous technology standards. Such assertiveness is primarily driven by the rise of China's technological and economic power. Its future, I argue, is still full of uncertainties. China is currently still unable to promote all its indigenous technologies as international standards; its assertiveness is therefore limited. Furthermore, if China cannot achieve further international consensus on its preferred technological rules and institutions, Beijing will have to embrace the risk of a remarkable loss in global trade in exchange for its superiority in global technology governance over the long term.

China is currently still unable to promote all its indigenous technologies as international standards; its assertiveness is therefore limited. Furthermore, if China cannot achieve further international consensus on its preferred technological rules and institutions, Beijing will have to embrace the risk of a remarkable loss in global trade in exchange for its superiority in global technology governance over the long term.

The first section briefly summarises the current global technological regime, with a focus on the setting of international technology standards. The second section illustrates China's contradictory behaviour in complying with existing global rules and institutions while promoting assertive changes that favour its own economic and political interests. The final section uncovers the key drivers behind China's evolving performance and discusses the implications for the future of global technology governance.

Global technology governance

Following Kennedy's definition of "global governance" as the rules, procedures, and norms that define appropriate behaviour, facilitate cooperation, and manage differences among state and non-state actors from multiple countries, global technology governance broadly refers to the ways the current and future

use of technology is directed and controlled by global economic and political actors[1]. It encompasses the totality of institutions, policies, norms, procedures, and initiatives through which states and non-state actors bring predictability, stability and order to their response to emerging transnational technological challenges. This chapter focuses on one specific dimension in global technology governance: global technology standards, the rulemaking for which has been considered a building block of the global technology regime. The setting of global technology standards entails three important features in global technology governance:

- *A consensus to achieve public goods*: As Murphree has argued, standards for metrics, safety, quality and technology are ubiquitous in the modern global economy. They act to reduce uncertainty, build implicit trust and thus lower transaction costs, smooth exchange and facilitate the function of the 'invisible' hand of supply and demand[2]. Technology standards, in particular, construct high-technology goods and services platforms that enable multiple-innovation implementation and offer interoperable technologies with expanded functionality. The establishment of technology standards, therefore, helps to enable and expand the global production network.
- *A commitment to intellectual property*: According to Murphree and Breznitz, "within the hundreds of pages of documentation for a standard, the clauses concerning standards-essential intellectual property help determine the fate of technologies, market, firms, and even countries in the global economy"[3]. Thus, the IP

[1] S. Kennedy, *Global governance and China: the dragon's learning curve*, London, Routledge, Taylor & Francis Group, 2018.

[2] M. Murphree, "Building Markets: The Political Economy of Technology Standards", Ph.D. dissertation, Georgia Institute of Technology, 2014.

[3] D. Breznitz and M. Murphree, "The Rise of China in Technology Standards: New Norms in Old Institutions", Research report for the U.S.-China Economic

practices embedded in international technology standards determine how pricing and economic profits are distributed among different market actors – mainly IP licensors, contributors and takers. These practices also coordinate the viability or profitability of business and innovation strategies in the global economy.

- *A struggle for the global economic order*. Despite the conventional assumption that technology standard-setting is an apolitical, scientific process that develops or identifies the technically optimal solution to a technical challenge, international technology standards function as an important element of governance and imply huge distributional conflicts, triggered by transnational technological development[4]. This is especially true, according to Zysman and Newman (2006), in competition in the digital era[5]. The established, entrenched technology standards engender a substantial cost of switching, which jeopardises the profits and even the survival of disadvantaged firms.

Global governance for technology standards consists of two rulemaking processes. One is the market process by which tech firms, especially powerful multinational corporations, often seek to establish their own solutions to a technical challenge as the *de facto* standard. Many economists suggest that large, influential producers who control cornerstone technologies and favour rapid innovations tend to establish their own global technology standards by achieving dominance in global technology markets. Outstanding examples include Microsoft software, Apple hardware and Sony's DVD players.

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and Security Review Commission, 2013.

[4] T. Büthe and W. Mattli, *The New Global Rulers: The Privatization of Regulation in the World Economy*, Princeton, Princeton University Press, 2011.

[5] J. Zysman and A. Newman, *How Revolutionary Was the Digital Revolution? National Responses, Market Transitions, and Global Technology*, Palo Alto (CA), Stanford University Press, 2006.

In addition, *de jure* international technology standards can be established by international organisations. The organisational process follows an institutional logic that differs from market access and other public governance arrangements between national governments. Today, two international organisations stand out as the focal institutions for global rulemaking on technology standards: the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Established in 1904, the IEC focuses on the development of standards for a broad range of electrical equipment, electronic and multimedia devices and, since the 1990s, fuel cell technology. The ISO is a product of a merger between the International Federation of National Standardization Associations (ISA) and the United Nations Standard Coordinating Committee (UNSCC). ISO standardisation was originally concerned with basic standards of mechanical engineering; it then quickly expanded into a wide range of new areas, such as chemical technology, construction materials, nuclear and solar energy, information technologies, nanotechnology, and e-commerce.

The institutional process for the setting of international technology standards includes the following steps: both the ISO and the IEC aim for a broad consensus and thus try to accommodate as many stakeholder preferences as possible. At the same time, each international body ultimately follows a majoritarian decision-making procedure for adopting – or rejecting – the resulting technical specification as an international standard. In this context, parties that seek to influence international standards need good and timely information about the standardisation agenda at the international level, and they also need to have institutional mechanisms at their disposal for projecting their preferences efficiently and effectively from the domestic to the international level. Most international standard-setting organisations, according to Büthe and Mattli, are private. They are largely financed by voluntary contributions from private-sector stakeholders and are not subject to public oversight[6].

[6] T. Büthe and W. Mattli (2011).

In the meantime, both of these international standard-setting organisations recognise key principles that govern the strong protection of essential intellectual property in technology standards. As defined by the ISO, companies whose representatives are taking part in the development of a standard, or that are active in technology areas covered by a prospective standard, are obliged to license the relevant protected technologies to any interested firm without bias and to charge a 'reasonable' royalty fee for the license.

Over the past decade, there has been a striking convergence of global technology standards. Many national governments have delegated their regulatory authority to a single international private-sector body for global technology standard-setting. However, developed countries, endowed with superior technologies and complementary domestic institutions, are still dominant players in global technology governance. Developing countries, according to Ernst, face intense pressure to choose the prevailing international standards over indigenous ones as they seek to secure the inflow of global capital.[7] Such pressure may become even stronger as countries join various bilateral and regional agreements, which increasingly include requirements for intellectual property protection[8].

China's role in global technology governance

As China's global influence and ambitions continue to expand, its participation in international regimes is also evolving. Over the past decades, China's role in the global technology regime has featured growing compliance with global rules and institutions, and, at the same time, an increasing assertiveness in the practice and norms of global technology standards.

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[7] D. Ernst, *Indigenous Innovation and Globalization: The Challenge for China's Standardization Strategy*, East-West Center, 2011.

[8] K. Maskus, *Private Rights and Public Problems: The Global Economics of Intellectual Property in the 21st Century*, Peterson Institute for International Economics, 2012.

Strong commitments: Active participation in international organisations

To comply with global rules and institutions for technologies, China has become an active and consistent player in key international standard-setting organisations and is complying with important international IP agreements. In 1980, China set up its first patent office and joined the World Intellectual Property Organization (WIPO). In 1984, it acceded to WIPO's Paris Convention for the Protection of Industry Property. In the following few years, Beijing also obtained membership in the ISO, the IEC and later the International Telecommunication Union (ITU). As a requirement of WTO membership, Chinese actors since the 2000s have also gradually been socialised into the intellectual property norms defined by the TRIPS Agreement.

During this period, China has also gradually transformed its role in the global technology regime, from primarily observing and offering only occasional comments to more active participation. In particular, under the new "Belt and Road Initiative" (BRI) proposed by President Xi Jinping in 2013, China is seeking to strengthen the distribution of its own national standards in neighbouring countries and to position Chinese standards more actively in international standardisation efforts under the roof of the ISO and IEC.

Under the new "Belt and Road Initiative" proposed by President Xi Jinping in 2013, China is seeking to strengthen the distribution of its own national standards in neighbouring countries and to position Chinese standards more actively in international standardisation efforts under the roof of the ISO and IEC.

Strong commitments: Comprehensive domestic reform

China's growing compliance with international technology rules and institutions has also led it to conduct its own

comprehensive, in-depth institutional reform in intellectual property and technology standardisation at home. In 1984, realising the importance of intellectual property in the upgrading of its technological and scientific capabilities, Beijing passed the 1984 patent law, the first IP law in the country, which offered invention, industrial design, and utility model patents. This law was designed to promote local innovation and seek technology transfer and the diffusion of IP-protected technology. Under the most recent 2014 judicial reform, the Chinese government has decided to set up specialised IP courts to hear intellectual property cases and deal with the increasing number of such disputes. At the moment, China has emerged as the world's most litigious country over IP. In 2015, China's Supreme People's Court adjudicated 130,200 IP cases. Over 10 million intellectual property cases have been settled in local Chinese courts[9]. Although many international scholars still criticise the weak protection of IP under the current Chinese legislative system, judicial reforms over the past 30 years have significantly improved technology innovation.

Meanwhile, Beijing has also reformed its domestic institution for technology standardisation, with the aim of better complementing the decision-making structure in international standards bodies[10]. In April 2001, the State Council of China decided to establish the Standardization Administration of the People's Republic of China (SAC), under the supervision of the General Administration of Quality Supervision, Inspection & Quarantine of the People's Republic of China (AQSIQ). The functions of this new government agency are to exercise administrative responsibility by undertaking the unified management, supervision and overall coordination of standardisation work in

[9] S. Kennedy (2018).

[10] Liang Zheng and Hou Junjun, "Standardization and Public Management: Consideration on the Establishment of Standardization Knowledge System", Zhongguo Biaozhunhua, no. 424, 2012, pp. 59-63; Wang Ping and Liang Zheng, "Study on Evolution of Standardization in National Associations and Alliances", Zhongguo Biaozhunhua, no. 443, 2013, pp. 59-62.

China. The SAC was also designed to be the official representative of China within the ISO, the IEC, and other international and regional standardisation organisations. In 2016, the Chinese government proposed to further revise the Chinese standardisation law. Among other aspects, the revised law limits mandatory standards to the national level and introduces association standards as voluntary standards elaborated by social organisations under the supervision of the SAC. Beijing also aims to simplify the current standardisation law and allow for the market to play a more important role in the standardisation process.

Assertive behaviour: (Inter)nationalisation of indigenous technologies

Over the past decade, the Chinese government has launched political campaigns to promote the development of indigenous technologies. Beijing has not only achieved such technological leapfrogging by implementing new national technology standards; it has also, most surprisingly, internationalised some of them to become new or alternative global standards. Below are some outstanding examples of Chinese efforts in the (inter)nationalisation of its home-grown technologies:

Beijing has not only achieved such technological leapfrogging by implementing new national technology standards; it has also, most surprisingly, internationalised some of them to become new or alternative global standards.

- In 1999, China's TD-SCDMA was successfully approved as one of the three international standards for telecommunication technology by ITU. This is China's first internationally accepted and certified third-generation mobile telephony standard.
- In 2003, China implemented a national mandatory networking encryption standard (WAPI) to replace the existing international WLAN standard (WIFI). This standard, however, did not eventually become a new international standard.

- In 2005, China established the AVS standard. This is a national substitute for the international MPEG-4 standard for sound and video encoding, decoding, and compression.
- In 2012, China's home-based Internet of Things standards, Intelligent Grouping and Resource Sharing (IGRS), was approved as a joint ISO/IEC standard suite.

Such assertive behaviour will have significant implications for the international technology market and global technology governance. Previous international technology standards are associated with a concentrated, even monopolistic global market share: once a technology has been approved as an international standard in international organisations, both developing and developed countries have incentives to comply with this standard. As a result, the company that owns the proprietary standard will achieve global market dominance. However, when China successfully internationalises its homegrown technologies as alternative/substitutive global standards and when international organisations opt to allow multiple standards in one sector, firms and consumers in the globalised economy have more standards to choose from when making production decisions. As a result, such efforts are likely to fragment the previously concentrated market and therefore carry the risk of disintegrating the global production network and diminishing the monopolistic market share that is known to be the privilege of many multinational corporations from the developed world. The degree of fragmentation, according to observers, is dependent upon the market success and global acceptance rate of those standards among emerging powers. The fear of redistributing economic benefits fully accounts for the escalating conflict between the US and China over the rise of 5G network standard developed by some Chinese state-owned flagships. At the same time, Beijing's success in implementing alternative national technology standards will also force multinational enterprises

to adjust their formulation of market-entry strategies for the Chinese market. Due to the sheer size of the Chinese economy, the economic impact of those national technology standards will be enormous.

Assertive behaviour: Soft IP practices vs hard IP norms

Along with Beijing's promotion of homegrown technologies both in national standard-setting and in the international arena, the Chinese government has also called for alternative soft IP practices in the global technology market, featuring inexpensive licensing for embedded IP in technology standards in exchange for the growing market acceptance of its indigenous technology standards. Such practices, according to Breznitz and Murphree, have challenged the "hard" IP norm endorsed by many developed countries[11].

The conventional norm established by the developed world considers IP to be property and thus supports strong IP protection. This norm specifies that the bearers have the right to dispose of the IP as they see fit, whether by restricting access to it or setting the price at which it may be used. To participate in the global market, developing states must produce standard-compliant products. To do so, their firms are required to pay royalties to MNCs for the right to use the essential IP in standardised technologies. This increases their costs and lowers their profit margins, thus reducing the resources available to invest in research and development that could, perhaps, contribute to the next generation of technology. Such strong protection of intellectual property in technology standards has also been recognised and included as a key principle by many international standard-setting organisations.

Yet in China, the practice is quite different. The Chinese approach emphasises IP as another factor of production and downplays its direct monetisation value. China's Patent Law (1988) permits the inclusion of proprietary technologies in

[11] D. Breznitz and M. Murphree (2013).

standards, but there is no official legal position for IP in technology standards. Standards development organisations in the country are encouraged to include essential IP on a royalty-free or nominal basis before considering patented technologies or relevant protocol submissions from firms interested in maximising the returns from licensing. Their objective is to encourage firms to offer their IP inexpensively in exchange for broad promotion of the technology standard, with the idea that a larger user base would ensure both licensing revenues and income from sales of standard-compliant products.

Under China's recent "Belt and Road Initiative", China's new approach to international IP practice is likely to be widely adopted by its neighbouring states. Such success will help to expand China's contradictory IP norms in the global market, which will soften the hard IP norms currently embedded in current global technology governance.

Under China's recent "Belt and Road Initiative", Chinese political leaders also seek to strengthen the distribution of China's national standards in BRI countries. China's new approach to international IP practice, therefore, is likely to be widely adopted by its neighbouring states. Such success will help to expand China's contradictory IP norms in the global market, which will soften the hard IP norms currently embedded in current global technology governance. Multinational corporations may feel pressure to lower their royal fees in their technology licensing agreements, and thus may further lose economic dominance.

China's efforts in international technology standard-setting imply two emerging phenomena in the global technology regime. First, international standard-setting is no longer the privilege of world hegemons; instead, as an emerging power, China has also found a way to exert an influence on the standard-setting process. Second, neither the onslaught of international economic forces nor the fragmentation of production has undermined the ability of individual states to embark on unique courses of economic growth. In the case of China,

strong compliance with existing global rules and institutions for technology has not prevented Chinese actors from achieving technological leapfrogging and unexpected breakthroughs in international technology standardisation.

Behind compliance and assertiveness…

China's assertiveness in the global technology regime is by no means a historical accident. Rather, it reflects the unexpected rise of developing countries as new centres for innovation and high-technology enterprises since the 1990s and, in particular, the success of the Chinese national political strategies that have enabled economic and technological leapfrogging. Beijing's evolving behaviour is primarily driven by the rise of China as an economic and technological superpower over the past decade, yet the unprecedented uncertainties underlying global technology governance in response to the fourth industrial revolution have also offered Beijing a striking opportunity to take the lead in the transformation of global technology governance. Despite China's achievements and innovations, however, it is important to recognise that its assertiveness still faces significant limits and that the future is full of uncertainties.

Since China opened its economy to the global market in 1978, it has amased the world with the unprecedented rate of its economic growth – 10-plus per cent of the GDP annually for twenty years[12]. Since the 1990s, certain Chinese market players, together with firms in a number of emerging economies, have moved quite surprisingly to the forefront of the new IT industry. They quickly became competitive global players in a production network that had in the past decades been dominated by the United States, embodying various business models and carving out new positions in the global production

[12] D. Breznitz and M. Murphree, *Run of the Red Queen: Government, Innovation, Globalization, and Economic Growth in China*, New Haven, Yale University Press, 2011.

network. Although some prominent China scholars warned that China's growth was unsustainable, as many Chinese high-tech enterprises failed to create "true" innovation resembling that of Silicon Valley[13]. Plenty of evidence shows that China has achieved remarkable success in many high-tech industries – the IT industry in particular – and has developed a formidable competitive capacity to innovate in different segments of the research, development, and production chain[14]. In 2006, the IT-hardware subsector accounted for 27.17% of China's exports, producing revenues of US$263.764 billion[15]. The Chinese government has also established three industrial regions as the heart of the Chinese IT industry: Beijing, Shanghai, and Guangzhou. These regions have gathered almost all of the top Chinese IT hardware and software companies, as well as all of the headquarters of major foreign multinational corporations[16].

It is crucial to underscore the role of the state in the building-up of Chinese science and technology, especially in China's efforts to develop its own technology standards. The Chinese government initiated the "National Medium- and Long-Term Program for Scientific and Technological Development (2006-2020)" in 2006, aiming to develop indigenous innovative activities and create an "innovative society" in China by 2020[17]. The Eleventh Five-Year Plan and subsequent national policy statements also called for complementary science and technology programs[18]. Central to these policy proposals is the establish-

[13] Cao Cong, "Zhongguancun and China's High-Tech Parks in Transition", *Asian Survey*, vol. 44, no. 5 2004, pp. 647–688.

[14] Fu Xiaolan, *China's Path to Innovation*, Cambridge, Cambridge University Press, 2015.

[15] MOST [Ministry of Science and Technology of the People's Republic of China], China Science and Technology Statistics: Data Book, 2007, hiip://most.gov.cn/eng/statistics/2007/200801/P020080109573867344872.pdf.

[16] D. Breznitz and M. Murphree (2011).

[17] Cao Cong, R.P. Suttmeier and D.F. Simon, "China's 15-Year Science Plan: Mapping Research and Innovation Strategies for the 21st Century", *Physics Today*, vol. 59, no. 2, 2006, pp. 38-43.

[18] S. Schwaag-Serger and M. Breidne, "China's Fifteen-Year Plan for Science and

ment of indigenous Chinese standards incorporating Chinese intellectual property. Chinese political leaders consider the filing of patents and the initiation of standards as important "outputs" informal research evaluation and measures of success in innovation. Today China has become the third-largest user of the Patent Cooperation Treaty (PCT) behind the United States and Japan, and the second-largest patent applicant in the world, following only the United States.

Fig. 1 - Number of Internet Drafts Submitted by Country

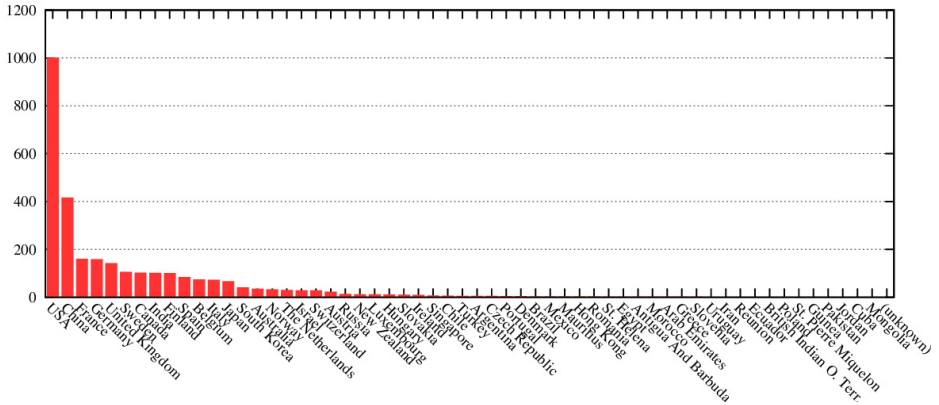

Figure 1 graphs the growth of Internet drafts submitted to the Internet Engineering Task Force (IETF). As an open international standards organisation, the IETF develops, promotes, and finally publishes Internet drafts as global Internet standards. An Internet draft is a document containing preliminary technical specifications or other technical information. As of May 2018, the IETF had received nearly 1700 drafts. While over 50% of them were from the United States, emerging states and other developing countries still proposed almost 600 drafts,

Technology: An Assessment", Asia Policy, no. 4, July 2007, pp. 135-64.

and nearly all of their drafts were submitted in the past decade. China, India, South Korea, Russia, and Singapore are the most active five emerging economies; their proposals make up 99% of the total drafts from the developing world. Some of their proposals – for instance, China's third-generation (3G) telephony standard, TD-SCDMA – have been approved by international standards organisations as alternative global standards.

In the meantime, the national research and development (R&D) system has taken standards development as a key task and has initiated special R&D programs for standards development[19]. The Chinese government is also calling for China's industrial enterprises to become the core of the national innovation system. Tax and procurement policies have been used to incentivise Chinese enterprises to become centres of intellectual property development and standards initiatives. Direct R&D support has been offered to these enterprises. A firm's IP and standards record directly affects its eligibility for further technology policy privileges. In the IT sector, for instance, Huawei and Datang have been named new "national laboratories", an institutional designation that leads to preferential funding that had previously been reserved for research institutes and universities.

However, there are many limits to China's behaviour in the global technology regime. Many scholars evaluate these political strategies in indigenous technology standardisation as a failed attempt. They contend that state intervention in the setting of standards tends to be costly and may well fail if a *de facto* standard has already been established through market-based mechanisms[20]. Indeed, not every homegrown technology from China can be recognised as an alternative global technology standard. Beijing's success in the internationalisation of indigenous technologies remains very rare. The most vivid example is China's bid

[19] G.S. Yip and B. McKern, *China's Next Strategic Advantage: From Imitation to Innovation*, Cambridge (MA), MIT Press, 2016.

[20] T. Büthe and W. Mattli, *The New Global Rulers: The Privatization of Regulation in the World Economy*, Princeton, Princeton University Press, 2011.

to promote WAPI over Wi-Fi as the international wireless local area network standard. Immediately after the SAC issued the WAPI standard in May 2003, multinationals from the United States, Western Europe and elsewhere established a large and firmly unified alliance against this policy decision. Intel and Broadcom, the two most important semiconductor companies in the IT industry and the owners of the widely used Wi-Fi standards, announced that they could not meet the WAPI regulation guidelines and thus would stop shipping relevant products (such as Intel's Centrino chips) to China as of June 2004. Meanwhile, these multinationals also united in several industry associations, including the US Information Technology Office, the European Information and Communications Technology Industry Association, and the Japanese Chamber of Industry and Commerce. These various players lobbied their respective governments to put pressure on the Chinese to abandon WAPI. Moreover, those MNCs also managed to influence the decision-making of certain Chinese indigenous enterprises. Top Chinese IT companies – Lenovo, Founder, Qinghua Tonfang, Huawei, and TCL – displayed only tepid enthusiasm for China's WAPI standard. As a result, Chinese Vice Premier Wu Yi announced in April 2004 that China would "indefinitely postpone" the mandatory implementation of WAPI. Wu also promised that China would work to revise WAPI and cooperate with international standards organisations.

Moreover, as pointed out by Breznitz and Murphree, Chinese industry has not collected any royalties from these standards; cross-licensing of standards between Chinese and foreign companies has yet to occur; and foreign firms have not turned over their intellectual property as a result of these standards[21]. Multinational corporations are hesitant to accept and support Chinese standards, especially when the Chinese government plays a primary role in the standard development and when the drafting process is characterised by a lack of transparency.

[21] D. Breznitz and M. Murphree (2013).

Recent interviews with Western executives have even uncovered a defensive purpose in their joining of Chinese standards committees[22]. MNCs are often already committed to non-Chinese alternative technologies and join without ever intending to contribute to the standards. They participate to obtain information, to demonstrate goodwill toward their Chinese partners and the government and to be better placed to take advantage of opportunities in the event that a local standard succeeds. The future of China's role in global technology governance remains unclear.

Moving forward: Experimentation amidst uncertainty

Many of China's actions in international technology standard-setting has given new impetus to the global technology regime. On the one hand, Beijing's strong commitments to international and regional standard-setting organisations and its long-term institutional reform in protecting intellectual property and technology standardisation have further legitimised the current global regulations for technology. On the other hand, however, its success in the (inter)nationalisation of homegrown technologies and its widespread use of soft IP practices have created huge uncertainties in the global technology regime. In fact, such uncertainties are rooted in China's unprecedented transformation from a "catching-up" state to a "post-catching-up" state. China has been long known as a technological imitator and economic follower. Its

Beijing's success in the (inter)nationalisation of homegrown technologies and its widespread use of soft IP practices have created huge uncertainties in the global technology regime.

[22] R.P. Suttmeier, S. Kennedy and Su Jun, "Standards, Stakeholders, and Innovation: China's Evolving Role in the Global Knowledge Economy", NBR Special Report, 2008.

domestic institutions for economic development and technological advancement and its ambitious policy agenda follow the standard logic of a catching-up state. As argued by Breznitz and Murphree, China has become a successful, rapid follower in the global technology order; its political and economic institutions have provided adequate support for process innovation, rather than product innovation[23]. However, China is now quickly transforming itself from a mere technology follower to a global technology leader, especially in the IT and biotech sectors. In this new context, entrenched institutions in the country are unable to provide appropriate and exact instructions for the unforeseeable future. Such uncertainties will certainly incentivise widespread experimentation on the part of the Chinese government and business groups; they will imply errors and failures, which may, in turn, limit the transformation of China's behaviour in global technology governance.

China is now quickly transforming itself from a mere technology follower to a global technology leader, especially in the IT and biotech sectors.

[23] D. Breznitz and M. Murphree (2011).

5. Chinese Global Climate Change Leadership and Its Impact

Yves Tiberghien

The fundamental drivers for the success of the Paris Agreement are two geopolitical forces centred on China: the China-US series of agreements after November 2014 (but, ironically borne out of the Copenhagen failure) and the China-French agreement of November 2014 and subsequent close coordination of geopolitical engagement. In essence, it is because climate negotiations were taken out of the realm of ministries and technical files, partly driven outside the UN setup, and elevated to the strategic leadership level within systemically important powers that success was possible. Never before was climate elevated to that level among leading world powers.

China appears as the pivotal player because of its determination to commit to a credible new pathway after 2012, a determination first elaborated at the 18th Party Congress and later taken on personally by Xi Jinping. However, it is ultimately the US-China strategic dialogue, which gave the essential components and impetus for an eventual agreement. The French Presidency complemented the US with a further agreement with China and close coordination with China and the US in engaging all other significant powers.

This chapter integrates the insights from fieldwork in China, including a long interview with Xie Zhenghua, China's chief climate negotiator, as well as Laurent Fabius, Chair of the COP21, and Canada's Environment Minister, Catherine McKenna. It also explores the long-term impact of China's shift to a full-out green tech investment, including the massive rise of its (electric vehicle) EV industry.

Introduction

The rise of China and its impact on the US-led Liberal International Order (LIO) may be the most crucial global question of our current decade. In nominal dollars, the ratio between the Chinese GDP and the US GDP has increased from 6% in 1990 to 12% in 2000, and 66% in 2017[1]. In PPP $ terms, the ratio reached 100% in 2013 and 120% by the end of 2017. Following Donald Trump's election and the stacking of the White House with anti-China hawks, the question has taken a new urgency. The Washington elite seems to be increasingly converging toward a negative assessment of China's entry into the LIO since the early 1970s and toward a will to take robust countermeasures[2].

Can China advance its growing interests within the US-led LIO? Can the LIO, and more critically, the current hegemon accept and accommodate the rise of a soon-to-be dominant power, without being destroyed in the process?

This has put China in the classic conundrum of a rising power. In an existing global order that has both been supportive (or permissive) of its own rise and structured in favour of the existing dominant hegemon, what is the optimal course of action? Can China advance its growing interests within the US-led LIO? Can the LIO, and more critically, the current hegemon accept and accommodate the rise of a soon-to-be dominant power, without being destroyed in the process? The dilemmas surrounding the resilience and reform of the global economic order have become deeply intertwined with the "Thucydides trap" facing both China and the US[3].

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[1] IMF, *World Economic Outlook* database, author's calculations.

[2] K.M. Campbell and E. Ratner, "The China Reckoning: How Beijing Defied American Expectations", *Foreign Affairs*, vol. 97, no. 2, March/April 2018; K. Mahbubani, "America's Collision Course with China", *Project Syndicate*, 17 May 2018.

[3] G. Allison, *Destined for War: Can America and China Escape Thucydides's Trap?*, New York, Houghton Mifflin Harcourt, 2017.

In this larger global context, what strategy has China followed? Looking at the record of the past decade, China has often taken Western policymakers by surprise, either through unexpected support for the US-led status quo and support for LIO-enhancing reforms (climate change, G20, peace-keeping) or through unexpected innovations on the sidelines of the LIO (Asian Infrastructure Bank, New Development Bank, Belt and Road Initiative). The pattern of Chinese actions in global economic and environmental governance over the last ten years reveals a high degree of involvement, innovation, plasticity, and reversals. Within a mere decade, China went from being a quiet participant in G20 summits or ambivalent negotiator in climate negotiations (Copenhagen, 2009) to the avowed advocate of both the global economic order and global climate governance in 2017. China has clearly shed aside its long-held ambivalence toward the US-led liberal order and to globalisation.

No domain is a more vivid representation of China's willingness to engage with the global order as an increasingly pro-active stakeholder than climate change. China went from being essentially a bystander strictly insisting on the "common but differentiated responsibility" principle in the Kyoto Protocol and an apparent spoiler at the Copenhagen climate summit in 2009 to the critical player that made the Paris Agreement possible in 2015. China is in the midst of a massive green revolution that is giving credence to its newfound climate leadership.

China matters immensely to the future of the climate on the Earth and is, in fact, the essential player. Looking at CO2 emissions (not the only greenhouse gas, but the largest contributor to climate change), China's emissions ballooned from 10.7% of global emissions in 1990 (the benchmark year for the Kyoto protocol in 1997) to 22.3% in 2008 and 28.0% in 2017 (a flat share since 2014)[4]. Relative to the US, the other great polluter, China's C02 emissions went from 46% of US emissions in

[4] International Energy Agency (IEA), *CO2 Emissions from Fuel Combustion*, 2010, report prepared for the COP 15 in Copenhagen; and IEA, *Global Energy and CO2 Status Report- 2017*, March 2018.

1990 to 117% in 2008 and 190% in 2017[5].

At the 19th Party Congress in October 2017, Xi Jinping summarised China's position in the following terms: "taking a driving seat in international cooperation to respond to climate change, China has become an important participant, contributor, and torchbearer in the global endeavour for ecological civilisation"[6]. Later in the speech, Xi Jinping added: "we should be good friends to the environment, cooperate to tackle climate change, and protect our planet for the sake of human survival (53)." In 2018, Xi Jinping has repeatedly reaffirmed this position, condemning Donald Trump's withdrawal from the Paris Agreement in May 2017. The contrast between a growing Chinese commitment to a demanding green revolution and the US refusal to engage with a global consensus is particularly vivid.

"Taking a driving seat in international cooperation to respond to climate change, China has become an important participant, contributor, and torchbearer in the global endeavour for ecological civilisation".

For China, these are not empty words, even though the task of weaning China from dependence on coal and carbon is a massive challenge. As noted by Xie Zhenghua, the Chinese long-time Chief Negotiator for Climate Change, they are part of a strategic decision to shift the entire economic

Xi Jinping has repeatedly reaffirmed this position, condemning Donald Trump's withdrawal from the Paris Agreement in May 2017. The contrast between a growing Chinese commitment to a demanding green revolution and the US refusal to engage with a global consensus is particularly vivid.

[5] Source: author's calculations, based on IEA data.

[6] Xi Jinping, "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era", Working Report Delivered at the 19th National Congress of the Communist Party of China, 18 October 2017, p. 4.

structure toward a greener structure[7]. For three years in a row, 2014, 2015, and 2016, China's CO2 emissions registered no increase and coal-based emissions essential peaked in 2014. In 2017, China registered a 1.7% increase in C02 emissions while its economy grew by 7%, confirming a decoupling between growth and CO2 emissions. The total C02 emissions in 2017 were 9.1 gigatons, just 1% above the 2014 level[8]. The IEA reports that China represented 40% of the global increase in solar and wind energy production in 2017. "China overtook the United States to become the world leader for non-hydro renewables-based electricity generation. Global solar PV capacity approached 400 GW by the end of 2017. It was an extraordinary year for solar PV additions in China, with over 50 GW of new capacity, exceeding the combined capacity additions of coal, gas and nuclear, and up from 35 GW in 2016. The new solar PV capacity added in China in 2017 alone is equivalent to the total solar PV capacity of France and Germany combined"[9].

The new stringent fuel efficiency rules will force automakers to sell large numbers of electric vehicles (EV) by 2025, and the license plate lottery in Beijing is incentivising buyers to favour EV purchases[10]. China is aggressively cutting coal usage[11]. Already, over 60% of high-speed train tracks in the world are in China (10 times the length in Japan, for example)[12]. China also recently committed to achieving blue skies in all of its major cities within three years. The changes are already being felt: Beijing air is 30% cleaner this winter than last winter[13].

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[7] Personal interview with Minister Xie Zhenghua (Vice Chairman of NDRC, former Minister of environment, Chief Climate Negotiator of the PRC since 2008) on 17 May 2017 in Beijing.

[8] IEA (2018), p. 4.

[9] Ibid., p. 9.

[10] *Financial Times*, 23 January 2018, hiips://www.ft.com/content/50776a00-0020-11e8-9650-9c0ad2d7c5b5?segmentId=778a3b31-0eac-c57a-a529-d296f-5da8125

[11] hiips://www.ft.com/content/ 3d9d0c78-ce7b-11e6-864f-20dcb35cede2

[12] Wikipedia, List of high-speed railway lines

[13] *South China Morning Post*, "Air quality is improving in Beijing this winter – and

What explains the strategic shift taken by China in global climate change governance since Copenhagen? Moreover, what does the Chinese behaviour in climate politics tell us about its approach to evolving globalisation and global governance?

In this chapter, I argue China's new position in global climate change came together in 2009-2012, with a further top-down acceleration by President Xi Jinping in November 2014. Two core factors have driven this shift. First, a progressive climate change position has increasingly appeared to the top Chinese leadership as a key vehicle to project a new role and image for China as part of the ongoing push for improved global governance. In 2014-2015, climate governance also became a key vector for US-China cooperation and EU-China cooperation, thus used as part of a grand bargain to defuse tensions with existing powers over China's rise.

Second, the Chinese climate strategy also came together with the 12th and even more, the 13th 5-year plan as a key driver for China's forward-looking industrial, energy, and innovation strategy. As China moves aggressively with climate policies, it is able to invest massively into a new green economy that is foreseen to be the dominant economy in two or three decades, while decreasing its energy vulnerability. It should be noted, however, that this broad industrial vision was not enough initially to lead China to accept high profile international climate commitments until November 2014 and Xi's personal intervention.

As China moves aggressively with climate policies, it is able to invest massively into a new green economy that is foreseen to be the dominant economy in two or three decades, while decreasing its energy vulnerability.

A third supporting factor is public opinion, especially that of the urban middle class. Although less alarmed by climate change than Europeans or South Americans, Chinese citizens

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that's bad news for some home appliance retailers", 8 January 2018.

have increasingly mobilised against air pollution. In their urgency to respond to the growing discontent of the urban population toward pollution, Chinese officials have developed policies that have a positive effect on climate change.

This chapter begins with a review of the political drivers behind China's strategic climate shift before turning to the analysis of China's role in the process leading to the Paris Agreement and the post-Paris implementation policies.

Political factors behind China's turn toward climate leadership

In contrast to its massive investments into polluting industries in the wake of the 2008 financial crisis and its rigid position at the COP15 in Copenhagen, China's recent posture on climate exhibits a great turnaround. With a proactive climate position in bilateral and multilateral summits since November 2014 (including the G20) and a plethora of green economic reforms domestically, China has emerged as one of the most committed nations to the Paris Agreement and its implementation. What is driving such a new posture and how did the shift happen? How deeply is it grounded within the Chinese policymaking?

International strategic interactions

To understand the Chinese strategic view on climate, two key points must be made. First, climate change politics in 2018 is very different from climate change politics in 1997, 2009, or 2012. It used to be seen as a technical set of negotiations managed mostly by environmental ministers, scientists,

Climate change politics in 2018 is very different from climate change politics in 1997, 2009, or 2012. Since at least November 2014 and the mega US-China deal, climate change has entered the realm of high politics and is part of a global game of negotiations for the future world order among great powers and multiple other players.

NGOs, and business. Since at least November 2014 and the mega US-China deal, climate change has entered the realm of high politics and is part of a global game of negotiations for the future world order among great powers and multiple other players. To solve climate change requires nothing less than a complete[14] technological shift and shift to a new economic structure, not in 2100 but essentially within two decades. The Chinese elite fully believes this and treats climate accordingly, as confirmed by countless interviews and discussions of the author in China. This stands in contrast to the US situation, where the majority of Members of Congress still question climate science.

Second, climate politics is a nexus issue for China's foreign policy. It connects at the same time to China's long partnership connections to developing countries (going back to the Non-Aligned movement of the early 1950s), China's growing role as a rising power, China's primary relationship to the US, and China's own global image. Therefore, many dimensions must be taken into account by China and climate policy has become increasingly seen as a way to define its global image, reputation, and soft power.

"On climate change, the Chinese government and President Xi have made it clear that climate change is a challenge against all human beings, and it affects human being's welfare. We must be responsible. It is not some else force us to do it, but we need to solve it (climate change). It is also the inner request of realising sustainable development for China".

This chapter builds on the social state theory developed by Ian Johnston, arguing that China's own understanding of climate and its environmental culture have been evolving as part of an internal learning process and social interaction with the UNFCC process and many partners[15]. Through multiple interactions and

[14] G. Wagner and M. Weitzman, *Climate Shock: The Economic Consequences of a Hotter Planet*, Princeton and Oxford, Princeton University Press, 2015.

[15] A.I. Johnston, *Social States: China in International Institutions, 1980-2000*, Princeton (N.J.), Princeton University Press, 2008.

the traumatic experience of Copenhagen, China came to learn that the cost of inaction (or the appearance of inaction) was too high for China's core international relations and its global soft power. Conversely, taking leadership on climate change would allow China to get space and slack for many of its other foreign policies, as part of grand bargains with key partners, beginning with the United States. It puts China in phase with a common quest of humanity toward a liveable future. Xie Zhenghua puts it as follows: "on climate change, the Chinese government and President Xi have made it clear that climate change is a challenge against all human beings, and it affects human being's welfare. We must be responsible. It is not some else force us to do it, but we need to solve it (climate change). It is also the inner request of realising sustainable development for China"[16].

Because of Chinese norms on foreign policy and the importance of symbolism for Chinese domestic audiences, the structuring of the international process of negotiations also has a significant impact on China's behaviour. China took a harsh stance in Copenhagen in 2009 in large part because of the perceived structuring of the negotiation by the Danish host and the US in a way that sought to corner and pressure China. In particular, agenda setting was not seen as inclusive; there was a constant fear of a top-down agreement being parachuted down; and negotiations did not follow the bottom-up principle. In Xie Zhenghua's own words:

> Global governance, from my personal point of view, is a multilateral process that should reflect principles of inclusiveness, broad participation, and transparency. Consensus can, therefore, be reached. As these principles were not followed in Copenhagen, the conference was not a success. The success of COP21 could have been realised in Copenhagen, but it has to be delayed for another six years. Not following those principles is a main cause[17].

[16] Personal interview with Minister Xie Zhenghua (Vice Chairman of NDRC, former Minister of environment, Chief Climate Negotiator of the PRC since 2008) on 17 May 2017 in Beijing, cit.

[17] Ibid.

In sum, China's shift toward a proactive global climate change approach can be seen as a strategic adaptation to a changing global environment in relation to domestic norms. China's norms on its own responsibility as a benevolent power connected to developing countries required the country to learn from recent interactions and adjust its approach, especially when a strategic opening was possible in 2014 with the US. China's new stance on climate change is the result of an interaction between incentives for adjustment (systemic space), socialisation, and domestic norms on appropriateness and legitimate behaviour. Xie Zhenghua puts it this way: "China's basic attitude towards climate change is that we need to be responsible for now and future of all mankind"[18].

Beijing new attitude in the lead up to Paris and at the COP21 has turned China into a pivotal player who becomes indispensable for bridging the gaps among other countries, earning larger dividends for its image and global foreign policy.

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> Why do all the parties ask China for help? Because China has maintained good relations and communication channels with all countries, whether they are big countries or small countries, developing countries or developed countries. We have maintained an open attitude on this issue (of climate change). It is for the future of mankind[19].

[18] Ibid.

[19] Ibid.

A comprehensive domestic industrial, energy, and development strategy

If the trigger for China's great shift on climate change lies in its interactions with the international system in the context of its own domestic norms, an additional factor was the ability to turn climate change as a focal point for its new development strategy after the 18th Party Congress in 2012.

> We decided this based on our own needs, not due to pressures from other countries. This will help transform our development model and respond to the internal demands of China's sustainable development. Hence this issue was elevated to a strategic level. [...] China does not see climate change as a technical problem, but sees it as a strategic problem that affects our strategic development[20].

In several stages between 2012 and 2018, under Xi Jinping's leadership, China has come to develop a climate policy that encompasses a broader development vision, an energy policy, an industrial policy, and an environmental policy. China has taken the bet that the global turn toward a green economy and new sources of energy is unavoidable and that countries that lead this transformation will yield the benefits in two decades. By being a first mover and central player in the future green economy, China will gain a great competitive advantage. In pursuing this bet, China has the ability to use the tools of the state to remedy market failures in advancing the required energy transformation.

China has taken the bet that the global turn toward a green economy and new sources of energy is unavoidable and that countries that lead this transformation will yield the benefits in two decades.

China also sees the advantage of using a leapfrogging strategy and avoiding expensive outlays in soon-to-be-obsolete infrastructure. A green approach can be a great method to develop

[20] Ibid.

backward and remote areas by directly introducing solar panels and wind turbines.

John Matthews et al. argue that China's energy revolution is primarily a late-coming industrial strategy that allows it to take leadership in a new industrial structure, grow its economy, and solve its energy insecurity dilemma. This is why China is turning into a real renewable energy superpower [21].

Of course, this shift towards renewables comes with two caveats: first, the weight of coal in China's energy mix remains massive and will take a long time to shrink, even if it has peaked. Second, the implementation of new policies always remains partial at the local level.

Public opinion as supporting factor

Finally, although public opinion is not the core driver, it is certainly a supportive factor in China's shift toward a green economy and climate policies. The 2016 Pew Survey asked Chinese citizens about their top global concerns. Climate change scored highly at the third most important concern with 34% of citizens mentioning it (following concern with the US global power at 45% and global economic instability at 35%)[22]. On the domestic front, 73% of Chinese citizens cited water pollution and 70% cited air pollution as big problems, following closely after issues such as corruption, inequality, and health. In big cities such as Beijing, Shanghai, Guangzhou, Chongqing, or Chengdu, urban citizens are increasingly upset about pollution and expect very rapid and robust action from the government. This reinforces support for climate policy.

Laurent Fabius, former Chair of the COP21 remarked the following from his interactions with President Xi Jinping: "On China, the Chinese administration has changed its views compared to Copenhagen. The first time I saw Xi Jinping before

[21] J.A. Matthews, John A., Hao Tan and O. Faircheallaigh (Eds.), *China's Renewable Energy Revolution*, London, Palgrave Macmillan, 2015.

[22] Pew Research Center. Spring 2016 Global Attitudes Survey. Question 22-b.

he was President, he already remarked that the top 2 problems facing China over the next decade were pollution and the environment. He has always been active (on the environment) for political, social, and economic reasons"[23].

China's role in the process leading to the Paris Agreement

The fundamental drivers for the success of the Paris Agreement are two geopolitical forces centred on China: the China-US series of agreements after November 2014 (but, ironically borne out of the Copenhagen failure) and the China-French agreement of November 2014 and subsequent close coordination of geopolitical engagement.

In essence, it is because climate negotiations were taken out of the realm of ministries and technical files, partly driven outside the UN setup, and elevated to the strategic leadership level within systemically important powers that success was possible. Essentially, for the US, China, but also France, getting a climate agreement became one of their top foreign policy goals, and they became willing to leverage other aspects of foreign policy and relationships to get that goal. Never before was climate elevated to that level among leading world powers.

For the US, China, but also France, getting a climate agreement became one of their top foreign policy goals, and they became willing to leverage other aspects of foreign policy and relationships to get that goal. Never before was climate elevated to that level among leading world powers.

China appears as the pivotal player because of its determination to commit to a credible new pathway after 2012, a determination first elaborated at the 18th Party Congress and later taken on personally by Xi Jinping. However, it is ultimately

[23] Author's interview with Minister Laurent Fabius, Chair of the French Constitutional Court, Paris, December 14, 2016.

the US-China strategic dialogue, which gave the essential components and impetus for an eventual agreement. The French Presidency complemented the US with a further agreement with China and close coordination with China and the US in engaging all other significant powers.

The Evidence

1. According to Xie Zhenghua, Laurent Fabius, and other key players of the COP21, the eventual Paris Agreement is essentially a combination of the two US-China Agreements (2014, 2015) and the China-France Agreement of November 2014. The process of the Paris conference itself was critical; yet, that process mostly gravitated toward the median position shaped by US-China and France-China agreements. Reflecting upon the Paris Agreement a year later, Laurent Fabius, the former Chair of the COP21 and former Foreign Minister said: "having some agreements on paper between the US and China was key (…) It was much better than having statements individually from the US and China"[24]. Likewise, Canada's environment minister and chief negotiator, Catherine McKenna remarked: "the US-China agreement was very helpful: once China was there, it mattered, especially together with the US"[25]. Xie Zhengua noted: "In October 2014, when President Obama visited China, the two countries decided to issue a joint statement, which:
    - Identified the key principles of the agreement that will be followed at COP21: CBDR, equitability, and respect for capacities, in the light of different national circumstances;
    - Announced China's INDC targets and established a

[24] Ibid.

[25] Author's interview with Minister Catherine McKenna on 9 November 2016 in Ottawa.

bottom-up and autonomous model that is different from Kyoto;

- Identified the finance issue. The US is willing to commit, and China will initiate the South-South collaboration. The biggest developed country and the biggest developing country are willing to collaborate and identified their responsibilities. This has shown the differentiation, and solved the issue of whether to keep the CBDR"[26].

"The second Sino-US joint statement during President Xi's visit to the US (Sept 2015) has, from the political and policy level, found a Sino-US solution for the differences in Paris, namely, the problem of binding, technology, and transparency. It helped to find the key to Paris"[27].

"The Sino-French agreement also made key contributions. The French president visited China before COP21 and exchanged thoroughly with Xi on COP21. In addition to re-state the content in Sino-US statement, the visit solved the problem of sustainability of the agreement. It suggested the 5-year global stocktake, and eventually sketched the long-term target set by the agreement"[28].

2. At critical comments during the COP21, China, the US, and France (along with group leaders) came together and solved issues. The last hour on the last morning saw Xie, Kerry, Fabius cooperating closely (e.g. Fabius asking Xie to go talk to Nicaragua etc.). Canada's Minister McKenna notes: "China was actually good and helpful. China was very helpful in bringing along countries that they had influence on"[29]. For Laurent Fabius, "Xie

[26] Personal interview with Minister Xie Zhenghua, cit.
[27] Ibid.
[28] Ibid.
[29] Author's interview with Minister Catherine McKenna on 9 November 2016

was really decisive"[30]. As for Xi himself, he recalls: "I met every day with Ban, Figueres, Fabius, and heads of groups to work on the differences. Later, we worked on the use of terms for certain articles several times. In the end, when some countries found problems with the agreement, I worked with these countries repeatedly"[31].

3. Together, China and France in particular combined privileged access to both developing and developed world and could work effectively as joint mediators during the COP21 and in events leading to the COP21.
4. The US and China then led the way toward signature of the Paris Agreement (April 2016) and ratification (September 2016, pre-G20 agreement).

Implications

The fact that great power politics had such a key role in the crafting of the Paris Agreement and that the US-China agreements were so important at the heart of this agreement has several key implications.

1. Seriously addressing climate change requires a fundamental reshaping of domestic political economies and the incentive structure in the international political economy. Thus, it can only successfully be addressed as part of a holistic approach to global economic governance and incentives for domestic political economies across diverse political systems.
2. Progress with climate change must start as part of high-level strategic economic dialogues among large powers. If these building blocks are not in place, great powers defect, and momentum is lost. In terms of global governance, it is the combination of successful

in Ottawa.

[30] Author's interview with Minister Laurent Fabius, Chair of the French Constitutional Court, Paris, 14 December 2016.

[31] Personal interview with Minister Xie Zhenghua, cit.

high power strategic politics, along with a deliberative process that embeds other players, which can lead to progress.

3. The commitment to a new pathway is more entrenched in Chinese domestic trajectory (where there is a solid consensus) than in the US (where intense partisanship poisons the well). In 2018, it is China (and not the UN) that is driving high politics of climate and putting constraints on Donald Trump.

Concrete implementation of commitments made by China

The Chinese commitment to serious climate action can be traced through key political decisions and milestones and key implementation policies. The key milestones include the following steps.

November 2012 – 18th Party Congress

As Xie himself recalls, the 18th Party Congress in November 2012 marks the key turning point toward rapid action on climate change.

> It is at the 18th National Congress of the Communist Party of China that China formed the green, low-carbon, circular development strategy, although before there has been some work on it. The 18th Congress is a milestone as it was elevated to a strategic level. Also, as we set the peak year and NDC target, it also helped leverage domestic reforms. When Chinese people set the goal, we will make it happen. We have to follow green and low carbon economy to realize the target. The roadmap is clear. We will implement it through our five-year plan[32].

[32] Personal interview with Minister Xie Zhenghua, cit.

High-level decisions in fall 2014

> In 2014, the Central Party Committee and State Council decided that, in response to climate change, China will reach its peak of CO2 emission in 2030 and strive to achieve it as soon as possible, reduce CO2 per unit of GDP by 60-65% over the 2005 level, raise the share of non-fossil fuels in primary energy consumption to about 20% and increase forest stock by around 4.5 billion cubic meters over 2005[33].

This decision, apparently pushed by Xi Jinping personally over the objections of key economic ministries, laid the foundation for the successful US-China agreement on the margins of the APEC Summit in November 2014.

March 2016 – The five-year plan

The result of years of policy evaluation, coordination, and consultation, the new five-year plan carries the seeds of a major transformation in the Chinese economic model, should it be fully implemented. Its key priorities are innovation (including the shift toward digital economy, big data, and automation), green development, social change, and internationalisation. It does include a continued focus on infrastructure, including high-speed trains. A key target of the five-year plan is the following: China plans to develop 30,000 km of additional high-speed rail by 2020, which would make China the number one country in the world in terms of high-speed rail. New lines include Beijing-Kunming and Chongqing-Xiamen to pick just two.

Also essential in the new plan is the focus on green development and energy transition. China is now taking a serious turn toward renewable energy and seeking to leapfrog existing carbon-intensive technologies. This is a major takeaway from the new plan. Key targets include:

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[33] Ibid.

- encouraging initiatives that support "carbon-peaking";
- developing pilot projects with near-zero emissions;
- seeking a green transformation of manufacturing and focus on recycling;
- reducing agricultural pollution;
- ensuring 80% of days with low or moderate pollution by 2020 in urban centres;
- reducing resource consumption per unit of GDP: water 23%, energy 15%, CO2; emission 18% by 2020;
- increasing forest coverage to 23.04%.
- replacing coal and other carbon sources; systematically develop wind, solar, water, biomass, geothermal, and nuclear energy;
- investing in energy storage;
- encouraging more sustainable urban lifestyle (as part of the new urbanisation plans).

November 2017 – 19th Party Congress

In his long work report at the 19th Party Congress, Xi Jinping made the clearest and most powerful commitments yet to serious action on climate change and other environmental policies. Xi declared:

> We have devoted serious energy to ecological conservation. As a result, the entire Party and the whole country have become more purposeful and active in pursuing green development, and there has been a clear shift away from the tendency to neglect ecological and environmental protection. Efforts to develop a system for building an ecological civilisation have been accelerated (4). The modernisation that we pursue is one characterised by harmonious coexistence between man and nature (…). We will step up efforts to establish a legal and policy framework that promotes green production and consumption and promote a sound economic structure that facilitates green, low-carbon, and circular development. We will create a market-based system for green technology innovation, develop green finance, and spur the development of energy-saving and environmental protection industries as well as clean production and clean energy

> industries. We will promote a revolution in energy production and consumption, and build an energy sector that is clean, low-carbon, safe, and efficient (45).

March 2018: Twin parliamentary sessions and further commitment to "ecological civilisation"

In March 2018, China's National People's Congress approved a top-level reorganisation of government focused on solving major policy issues, including environmental problems. A super environmental ministry was created, and a new ministry of natural resources was empowered to protect biodiversity. The goal of an "ecological civilisation" has also been enshrined in the Constitution.

Conclusion

Following the painful experience of the failure of the COP15 in Copenhagen in 2009 and especially after 2012, China has pivoted toward a serious and proactive stance on climate change and later played a key role in the Paris agreement negotiations. The Chinese position is driven by a combination of strategic concerns in international relations and a strategic industrial bet on the green economy for its own development. Climate governance has become a key area where China has been able to play a larger role in global governance, in part because it is a new domain that befits a late developer and later comer such as China.

6. China's New Energy Sourcing: Disrupting and Competing or Improving Global Energy Security?

Fabio Indeo

The achievement of energy security has become one of the most important and strategic targets of the national states, emerging as a key component of their foreign and energy policies, especially for its impact on economic growth as well as for its influence in ensuring domestic political stability. Commonly, energy security is defined as "the uninterrupted availability of reliable energy supplies at affordable prices"[1]: this concept primarily reflects the perspectives of energy consumers countries, but it is also important within the perspective of supplier countries. For them, energy security also means the "guarantee of reliable revenues from their final markets" because very often supplier countries are strongly dependent on high revenues of the energy exports[2].

Consequently, a prolonged interruption of the energy flows to the markets represents a serious threat for the energy security status of both producers and consumers actors, emphasising their potential condition of vulnerability should they not successfully implement a strategy of geographic diversification of supply routes (import and export) as well as a diversification of the energy sources used within the national energy mix to produce electricity.

We can identify three main threats that could affect the global degree of energy security provoking a disruption of the energy flows:

[1] International Energy Agency (IEA), *Energy Security*, 2018.

[2] D. Yergin, "Ensuring Energy Security", *Foreign Affairs*, vol. 85, no. 2 , 2006, pp. 69-82.

- natural causes and technical accidents;
- economic and political tensions among countries;
- terrorism and piracy (in the latter case, concerning maritime energy routes).

Emerging conflicts and worsening relations among states could provoke disruption in the energy supplies since oil and gas supplies are mostly delivered through overland pipelines or along maritime routes. The main vulnerability of the overland pipelines linking energy producers and the markets is represented by the transit in a third country, mainly in the case of disputes involving the energy supplier and the transit country, with negative effects for both energy producers and markets.

Moreover, considering the strategic relevance of energy in the global scenario, energy infrastructures have become an attractive target for terrorist attacks, mainly in the producer countries, in order to provoke sudden disruptions in the energy flows and serious economic damages[3].

This chapter analyses China's strategies and initiatives aimed at preserving energy security. Even if China is one of the world's largest energy consumers and is heavily dependent on oil and gas imports, national authorities have planned and undertaken a successful strategy of geographic diversification of hydrocarbon imports that will have a significant impact also on global energy security.

China's energy security: threats and challenges

Currently, China is the largest global energy consumer and the world's largest crude oil importer at 8.4 million barrels of oil per day (Mbpd)[4]. However, the combination of limited domestic

[3] M.C. Libicki, P. Chalk, and M. Sisson, *Exploring Terrorist Targeting Preferences,* Rand Corporation, Santa Monica, 2007, pp. 58-59.

[4] US Energy Information Administration, China surpassed the United States as the world's largest crude oil importer in 2017, 5 February 2018.

energy resources and growing energy consumption exposes China to a condition of dangerous vulnerability in terms of energy security, due to the unbalanced dependence on oil and gas imports. According to the *World Energy Outlook 2017* elaborated by the International Energy Agency (IEA), following the continued increases in demand for transport fuels, China will become the world's largest oil consumer by 2030, taking over from the United States, but declining domestic oil production will push China to increase its oil imports from current 8.4 Mbpd to 13 Mbpd by 2040[5]. China's dependence on oil imports will account for 80% in 2040 – nearly 30% of all internationally traded oil[6] – representing a serious vulnerability for China's energy security that needs to be addressed.

The combination of limited domestic energy resources and growing energy consumption exposes China to a condition of dangerous vulnerability in terms of energy security, due to the unbalanced dependence on oil and gas imports.

In April 2017, Chinese authorities publicly released a strategic paper on *Energy Supply and Consumption Revolution Strategy (2016-2030)*, which sets out the main overall targets and strategies of Chinese energy sector for 2030: the improvement of energy efficiency, the use of renewable and non-fossil fuels to meet the growing energy demand, the reduction of the total energy consumption share of coal are some of the main strategic targets in order to adhere to the principles of the Paris Agreement and to shift toward a cleaner energy system, alleviating high pollution deriving from the country's heavy coal use[7].

China is wisely working to diversify its energy mix, increasing the use of solar power and other renewable sources as well as

[5] International Energy Agency (IEA), *World Energy Outlook 2017*, November 2017.

[6] Ibid; M. Lelyveld, "China's Oil Import Dependence Climbs as Output Falls", *Radio Free Asia*, 4 December 2017.

[7] National Deevelopment and Reform Commission, *Energy Supply and Consumption Revolution Strategy (2016-2030)*, July 2017.

natural gas to produce electricity through the progressive substitution of the coal-fired power plants with plants fuelled by natural gas (and also solar power). The commitment of Beijing to a much cleaner energy mix should reduce the share of coal to 45% (it was 65% in 2015).

In spite of the rising domestic production of natural gas, mainly driven by the contribution of unconventional gas (shale gas and coalbed methane), China will need additional volumes of natural gas to implement this "energy revolution strategy": natural gas demand will rise to over 600 billion cubic metres (bcm) by 2040 and the share of gas in China's primary energy mix will rise from under 6% to over 12% during the same period[8]. Consequently, in the medium term, China must increase fourfold its imports of natural gas which will reach 280 bcm per year by 2040 – 150 bcm via pipeline and 130 bcm via LNG[9].

The vulnerability of Chinese energy security – the "availability of regular energy supply, without interruptions" – is worsened by the strong reliance on maritime energy routes as the main supply corridors: in fact, more than 75% of Chinese oil imports are delivered through maritime corridors.

The vulnerability of Chinese energy security – the "availability of regular energy supply, without interruptions" – is worsened by the strong reliance on maritime energy routes as the main supply corridors: in fact, more than 75% of Chinese oil imports are delivered through maritime corridors. Chinese authorities have undertaken a strategy to diversify import routes, focused on:

- the development of overland oil and gas pipelines to reduce the dependence on maritime energy routes of imports;
- the protection of the Sea Lanes of Communication (SLOC) along the Indian Ocean, in order to eradicate

[8] International Energy Agency, *World Energy Outlook 2017*, *China*, 14 November 2017.

[9] Ibid.

threats that may provoke disruptions to the regular energy flows;
- the implementation of alternative energy routes to avoid transiting along the Strait of Malacca's energy chokepoint;
- energy partnerships with new oil and gas suppliers (Australia and United States).

Overland energy pipelines: new routes to meet Dragon's oil and gas "thirst"

The promotion of overland oil and gas pipelines fuelled by regional suppliers has undoubtedly enhanced Chinese energy security, because aimed at reducing its reliance on maritime energy routes gradually.

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The Myanmar-China energy corridor has been planned to carry on oil imports coming from the Middle East and Africa as well as hydrocarbons from Myanmar. In 2013, China completed the 2,520-kilometer natural gas pipeline with a capacity of 12 bcm of gas per year, which ships natural gas from the Shwe gas fields, enters China at Ruili in Yunnan province, and ends at Guigang in the Guangxi Zhuang autonomous region. The parallel oil pipeline – with a capacity of 480,000 barrels of oil per day – became operational in April 2017, delivering Middle East and African crude oil from Myanmar's Arakan coast to China's Southwestern Yunnan province[10].

The implementation of the Myanmar-China pipelines clearly represents a visible success of the Chinese strategy of diversification, as the only alternative project – concretely on stream

[10] "Myanmar pipeline gives China faster supply of oil from Middle East", *South China Morning Post*, 12 April 2017.

– allowing China to bypass the Strait of Malacca and divert oil imports towards an overland South-North corridor: moreover, these pipelines strongly enhance national energy security by connecting Myanmar and China directly without crossing any transit country. However, frequent clashes between ethnic militias and the national army in Myanmar's Northern Kachin state, which borders China, negatively affect the security of supply, highlighting the potential vulnerability of this energy corridor[11].

The energy cooperation with Central Asian oil and gas suppliers has strongly contributed to strengthening China's energy security, through the realisation of overland pipelines which allow Beijing to diversify its import routes. Kazakhstan – which holds the twelfth largest oil reserves in the world – and Turkmenistan – which holds the worlds fourth-largest natural gas reserves – have become Beijing's strategic energy partners.

With a nominal capacity of 400,000 barrels of oil per day the Atyrau-Alashankou oil pipeline – directly linking oil-rich Caspian fields with Chinese markets through the energy gateway represented by the Xinjiang region – appears as the most successful result of the Sino-Kazakh energy cooperation: as it is the case with the pipelines from Myanmar to China, the shared border between Kazakhstan and China increases the strategic relevance of this energy corridor avoiding the risk of supply disruption that ties China to the goodwill of a transit country. The Chinese government – through the China National Petroleum Company – invested billions of dollars in Kazakhstan's energy sector to exploit promising oil fields (CNPC holds production licenses for the Zhanazhol and Kenkiyak oil fields in Western Kazakhstan) and to commit their production to feed pipelines supplying China. Moreover, CNPC's investment to purchase a 8.3% stake in the Kashagan offshore giant oil field – which holds 13 billion barrels of estimated oil reserves – confirms

[11] D. Yonghong, "Rivalry and Cooperation:a New 'Great Game'" in Myanmar", *Asia Paper*, Institute for Security and Development Policy, December 2014, pp. 9, 17-19.

Beijing's strategic orientation to increase imports from this Central Asian republic[12]. In the gas sector, China supported the realisation of the Beyneu-Bozoi-Shymkent gas pipeline (with a capacity of 10 bcm/year), which is connected to the China-Central Asia Gas Pipeline (CAGP)[13]: Kazakh and Uzbek gas exports shipped through the CAGP represent for Beijing another successful attempt to promote overland pipelines.

At present, Turkmenistan is the main gas supplier for China, covering more than 45% of total gas imports – nearly 30 bcm of natural gas – through the China-Central Asia Gas Pipeline. After the completion of the fourth branch (line D, which will cross Kyrgyzstan and Tajikistan) the CAGP will reach a nominal capacity of 85 bcm/year expanding Turkmenistan's gas exports to 65 bcm/year. Given the availability of huge gas reserves and the possibility to realise overland pipelines to import growing volumes of natural gas, China invested more than 12 billion dollars to develop the Bagtyyarlyk gas field (which holds 1.2 trillion cubic metres, tcm, of estimated gas reserves) and especially the giant Galkynysh gas field (which should contain reserves from 13.1 to 21.2 tcm), consolidating its presence and energy partnership with this Central Asian country which will ensure abundant gas supplies for the next decades[14].

In terms of energy security, Turkmen gas is one of the best options for China to diversify its import routes: however, the transit along other Central Asian countries (the existent line A, B, and C cross Uzbekistan and Kazakhstan before reaching China while Line D will run through the territories of Uzbekistan, Tajikistan, and Kyrgyzstan) and the lack of a direct

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[12] F. Indeo, "A comprehensive strategy to strengthen China's relations with Central Asia", in A. Amighini (Ed.), *Belt and Road: A Game Changer*, Epoké-ISPI, Milano, 2017, pp. 44-45.

[13] A. Cooley, *The Emerging Political Economy of OBOR. The Challenges of Promoting Connectivity in Central Asia and Beyond,* CSIS, Center for Strategic and International Studies, Washington, 2016, p. 4.

[14] A. Bohr, *Turkmenistan: Power, Politics and Petro-Authoritarianism*, The Royal Institute of International Affairs, London, 2016, pp. 76-77; F. Indeo (2017), pp. 45-47.

connection highlights a condition of vulnerability of the CAGP, which could suffer from sudden disruptions of flows, also worsened by the fact that this pipeline currently meets about half of Chinese total gas imports and nearly 90% of gas imported through overland pipelines. The delay in the realisation of Line D – due to political discussions among involved countries about investments and routes – has potentially deprived China of the chance of taking advantage of additional volumes of gas (nominally 25-30 bcm) which could balance the dependence on LNG imports through maritime routes.

The energy partnership with Russia expresses the convergence of geopolitical and strategic interests and appears profitable for both actors. Given the geographical proximity and the long shared border, the development of oil and gas pipelines from the rich reserves located in the Siberian and East Russian fields directly to China will strengthen Beijing's energy security granting massive and regular energy flows. The economic sanctions that have affected Russia after the Ukrainian crisis and the annexation of Crimea have pushed Moscow to reorient its energy policy toward the Eastern market, to reduce the unbalanced dependence on the EU market concerning gas exports.

The growing energy-thirst of China can be abundantly satisfied by the huge availability of Russia's oil and gas reserves: as a matter of fact, Russia is one of the main producer and exporter of oil and natural gas (holding the second-largest gas reserves in the world)[15]. Since 2016, Russia has become the main oil supplier for China, surpassing Saudi Arabia as China's largest source of foreign crude oil: through oil tankers and pipelines, Russia is able to export 1.2 mbpd to China, accounting for 14% of Chinese total oil imports[16].

The Eastern Siberia Pacific Ocean (ESPO) pipeline is the main oil transport artery, operating since 2009: the current

[15] US Energy Information Administration, *Russia. Country Analysis Brief*, 31 October 2017.

[16] US Energy Information Administration, China surpassed the United States as the world's largest crude oil importer in 2017, 5 February 2018.

transport capacity of 1.6 Mbpd will be further enhanced to 2.6 Mbpd by 2020, meeting the oil needs of China and other Asian economies (Japan and South Korea). The Kozmino port on the Russian Pacific coast is the export terminal through which China could enhance its oil imports from Russia, which will be delivered by a different and profitable sea route, geographically closer to the Chinese refineries of the Eastern cost and without crossing geopolitical chokepoints like the Strait of Malacca. Moreover, China benefits from an exclusive oil pipeline, the Skovorodino-Daqing, which is a spur of the ESPO pipeline with a current capacity of 600,000 barrels of oil per day[17].

Following the gas deal signed in May 2014 in Shanghai, China has further improved the energy cooperation with its neighbour and border supplier: through the planned realisation of the "Power of Siberia" gas pipeline, China will receive 38 bcm/year of Russian gas by 2020, exploiting untapped fields in Eastern Siberia[18]. Furthermore, the Sino-Russian Memorandum of Understanding to realise the Altai gas pipelines in November 2014 represented another relevant and strategic step in this profitable energy cooperation: by the end of 2015, both parties should conclude this deal to implement the "Western energy route", delivering 30 bcm of Russian gas per year, from the Western Siberia's fields to Xinjiang[19].

Evaluating the impact of the overland oil and gas pipelines on the Chinese energy security, we can observe that the combined nominal capacity of three overland oil pipelines (from Kazakhstan, Russia, and Myanmar) will allow China to import 1,480 million barrel of oil per day, covering 17.6% of current oil imports.

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[17] E. Fischer, *Completion of the ESPO oil pipeline connects Siberia to the Pacific Ocean*, OSW, 9 January 2013; US Energy Information Administration (2017).

[18] D. Bochkarev, *China-Russia Gas Deal is More Practical than Political*, East West Institute, Occasional Paper, 3 June 2014; W. Powell, "Gazprom to supply China by pipeline in December 2019", *Natural Gas World*, 5 July 2017.

[19] J. Henderson, *The Commercial and Political Logic for the Altai Pipeline*, Oxford Institute for Energy Studies, December 2014, p. 8.

Considering that China should import 280 bcm of natural gas by 2040 (according to IEA projections), imports from Russia will account for almost one fourth of Chinese total imports in 2040, when the combined nominal capacity of the overland pipeline routes (CAGP, Myanmar, and Russia) – which will account for 165 bcm – could cover 68% of Chinese total imports, partially downplaying the relevance of LNG imports and lessening the condition of vulnerability linked to the chokepoint energy transit[20].

The massive investments to develop oil and gas fields and to build pipelines to export them to China has allowed Beijing to pay reduced prices for these energy imports: this is evident especially in Central Asia.

The massive investments to develop oil and gas fields and to build pipelines to export them to China has allowed Beijing to pay reduced prices for these energy imports: this is evident especially in Central Asia where China granted billions of dollars to realise energy infrastructures. In Turkmenistan − the main China's gas supplier − revenues from China are used to repay the multibillion loans granted by China to develop the national energy sector and Beijing paid $185 per 1,000 cubic meters of Turkmen gas, while the average price that Beijing pays for other gas imports (i.e. from Australia) is $225[21].

The protection of the Sea Lines of Communication (SLOC) and new maritime routes

The current high dependence on energy import delivered through maritime routes has forced China to deploy policies and strategies to protect the Sea Lines of Communication

[20] F. Indeo, *Energy Security in North East Asia: the Vulnerability of Maritime Energy Routes and Strategies of Diversification*, EGS Working Paper, no. 5, 2015, p. 20.

[21] China Figures Reveal Cheapness of Turkmenistan Gas, Eurasianet, 31 October 2016, https://eurasianet.org/s/china-figures-reveal-cheapness-of-turkmenistan-gas

(SLOC) in the Indian Ocean in order to contain threats that could disrupt the regular energy flows.

As a matter of fact, China's energy security is threatened by the fact that over 75% of oil imports are delivered through maritime routes crossing the Strait of Malacca, located between the east coast of the Indonesian island of Sumatra and the west coast of peninsular Malaysia. The Middle East and Africa are the largest sources of China's crude oil imports, respectively covering 52% and 23% of total Chinese imports, while Qatar is second largest LNG supplier for China (6 bcm/year) after Australia[22].

China fears the devastating effects of a potential blockage of the maritime energy transit routes through the Strait of Malacca – imposed by the United States Navy, which maintains its naval supremacy – in case of military tensions in the Indian Ocean[23]. China's "Maritime Silk Road" strategy (within the wider Belt and Road Initiative) has represented a geopolitical update of the so-called "String of Pearls" strategy[24], based on the creation of commercial and energy outposts as strategic bases stretching from the Middle East to Southern China in order to protect its energy interests as well as "broader security objectives". China has developed diplomatic and commercial ties with several countries located within its SLOC (Pakistan, Sri Lanka, Bangladesh, Myanmar, and Thailand), obtaining strategic facilities such as the access to ports and airfields as well as enhancing its military-naval presence along the Sea Lines of Communication to prevent piracy and terrorist threats. The recent establishment of the Chinese military base in Djibouti is a direct consequence of the need to protect the SLOC, by monitoring another maritime chokepoint (the Bab-el-Mandeb

[22] US Energy Information Administration, *China*, 14 May 2015.

[23] S. Tata, "Deconstructing China's Energy Security Strategy", *The Diplomat*, 14 January 2017; M. Lanteigne, "China's maritime security and the Malacca dilemma", *Asian Security*, vol. 4, no. 2, 2008, pp. 143-161.

[24] S. Tiezzi, "The Maritime Silk Road Vs. The String of Pearls", *The Diplomat*, 13 February 2014.

Strait) in the Horn of Africa, which is a crucial transit route for Sudan's oil exports (another relevant oil supplier for China).

Protecting the SLOC must be conceived as a component of the diversification's strategy aimed at solving the "Malacca dilemma", developing alternative overland energy pathways which should divert oil (and gas) imports away from the Strait of Malacca, in order to bypass this chokepoint.[25] Myanmar's pipeline network system is a prime example of this geopolitical orientation. Furthermore, the project to build an overland pipeline from the Gwadar port (Pakistan) to Xinjiang and then to Shanghai will also help China in its diversification attempt. Beijing's authorities invested over US$1.2 billion to develop a deepwater port in Gwadar – one of the "pearl" of the Chinese strategy – with the official intent to use this Pakistani port as an energy transport hub, thanks to its close proximity to the Strait of Hormuz and to the oil import routes coming from the Middle East. Generally, China has pledged to invest more than US$60 billion in the realisation of the wider China-Pakistan Economic Corridor, which also includes oil (and gas) pipelines expected to ship 20% of the current oil imports from the Middle East (approximately 840,000 barrels of oil per day)[26].

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[25] F. Indeo, "The Vulnerability of Maritime Energy Routes and Chinese Energy Security: Hormuz and Malacca Chokepoints Dilemmas", in A. Beltran (Ed.), *Oil Routes*, Peter Lang Editions, Bruxelles, 2016, pp. 312-314; C. Lin, *The New Silk Road: China's Energy Strategy in the Greater Middle East*, Policy Focus, no. 109, The Washington Institute for Near East Policy, April 2011.

[26] S. Ramachandran, "CPEC: 'Iron Brothers', Unequal Partners", *China Brief*, vol. 18, no. 1, 12 January 2018.

Furthermore, the implementation of alternative maritime routes for energy imports has become strategically relevant in the Chinese energy policy.

The proposal to dig a canal across Thailand's Isthmus of Kra – linking the South China Sea to the Indian Ocean – could be one of the most successful option (US$28 billion of estimated costs), allowing Chinese energy imports to bypass the Strait of Malacca and to reduce the dependence on this chokepoint by exploiting a geographically closer maritime corridor[27].

Moreover, the idea to exploit the Arctic route as a new alternative corridor has gained importance following the release of the white paper titled China's Arctic Policy in January 2018. This paper states that "the utilisation of sea routes and exploration and development of the resources in the Arctic may have a huge impact on the energy strategy and economic development of China which is a major trading nation and energy consumer in the world"[28]. The Arctic sea route will be profitable for China, reducing shipping times compared to the route crossing the Strait of Malacca and the Indian Ocean, and also solving the vulnerability linked to the chokepoint transit. Chinese investments to develop the Yamal LNG project in the Russian Arctic aim at exploiting the opportunity to increase natural gas imports from a new maritime route which bypasses the Strait of Malacca: the Chinese company CNPC holds 30% shares in the international consortium led by the Russian Novatek (50% of shares) – which also includes French Total – to develop this huge gas field (926 bcm of estimated natural gas reserves) realising a LNG plant in the Sabetta port to export 27 bcm of natural gas per year[29].

Another interesting option is the development of energy relations in the Asia-Pacific region: Australia has become one of

[27] R. Menon, "Thailand's Kra Canal: China's Way Around the Malacca Strait", *The Diplomat*, 6 April 2018.

[28] The State Council Information Office of the People's Republic of China, *China's Arctic Policy*, January 2018, p. 3.

[29] "Yamal LNG", Official wesbite.

China's main strategic energy partners thanks to its geographic position in the Pacific Ocean, which allows gas supply to reach Chinese LNG facilities in the East coast without crossing maritime chokepoints. At present, Australia is the main LNG supplier for China, exporting more than 15 bcm of natural gas per year, and in the future this energy partnership will be further strengthened: following the implementation of several new LNG projects, Australia will become the main LNG producer and exporter by 2020, overtaking Qatar, mainly by exploiting its sizeable and untapped unconventional gas resources in the form of coalbed methane and shale gas[30].

China's energy race and global energy security

The impact of the Chinese strategy in global energy security must be evaluated considering the deep interdependence that characterises the relations between energy supplier and energy consumer countries and their shared aim to achieve energy security.

China's energy thirst and its active engagement to ensure growing oil and gas imports will collide with the same goal that other Asian countries aim to achieve: according to the projections of the main international think tanks, in the next decades countries like India, Japan, and South Korea will need to grab additional volumes of oil and gas to enhance their energy security, mainly because they share a similar domestic energy scenario with China, characterised by rising consumptions, the lack of endogenous reserves, and high dependence on imports, mostly delivered through maritime routes.

Given their geographic location, maritime routes are the main supply corridors for South Korea and Japan, which cannot develop overland oil and gas pipelines to import hydrocarbons from abroad. Japan is the third largest oil consumer in the world (South Korea is the fifth) while Japan and South Korea

[30] F. Indeo (2015), pp. 26-27.

respectively are the first and the third world's largest importer of LNG. India is third-largest energy consumer in the world after China and the United States, and it is strongly dependent on oil and gas imports (the fourth largest LNG importer in the world), mainly delivered along maritime routes not having transnational pipelines to import oil and gas[31].

It appears highly probable that China and other Asian countries will be engaged in a geopolitical competition to grant themselves oil and gas imports from the same oil-producing regions: the Middle East, Africa, and Australia. In the case of the Middle East – which hosts the main global oil suppliers such as Saudi Arabia, Iran, the United Arab Emirates, and Kuwait, and the world's largest LNG exporter, Qatar – we can observe that the dependence of South Korea and Japan on oil imports from the Middle East respectively account for 87% and 82%, while India and China respectively depend on 60% and 56% of their oil imports from the Middle East region[32].

Consequently, we can clearly observe that the security of the Sea Lines of Communication is not an exclusive goal of China but is a shared goal of India and other East Asian countries which aim at preserving their energy security status of energy consumers, "the uninterrupted availability of reliable energy supplies at affordable prices". A sudden disruption of the energy transit through this maritime corridor represents a serious geopolitical threat, which could provoke heavy

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[31] US Energy Information Administration, *Japan. Country Analysis Brief*, Last Updated 2 February 2017; US Energy Information Administration, *India. Country Analysis Brief*, Last Updated 14 June 2016; US Energy Information Administration, *South Korea. Country Analysis Brief*, Last Updated 19 January 2017.
[32] Ibid.

economic and financial losses for Asian countries, also affecting their energy security. As a matter of fact, following the potential blockage of the Strait of Malacca, oil and LNG tankers should be rerouted around the Indonesian archipelago, with additional shipping costs and rising energy prices.

Given the dependence on oil imports coming from the Middle East, the security of the Hormuz chokepoint is a strategic goal for both energy markets and regional producers to avoid disruptions of supplies. One of the main unsolved problem linked to energy chokepoints is the lack of alternative routes to bypass them in case of sudden interruption – provoked by factors such as political instability, terrorism, or geopolitical competition among involved states –, a potential threat which could negatively affect not only Asian energy security, but the world energy scenario with significant impact on oil and gas prices. Concerning Hormuz, EIA estimates that 18.5 million barrels of oil cross this chokepoint daily, and more than 85% is delivered to Asian markets[33]. At present, there are only two concrete alternatives to bypass this strait – the Petroline pipeline, which allows Saudi Arabia to deliver 25% of its total oil exports to the Red Sea, bypassing Hormuz, and the Abu Dhabi Crude Oil Pipeline to the Gulf of Oman – but the limited transport capacity of these routes (able to nominally divert only one third of the Middle East total oil exports from the Hormuz transit) could lead to a dangerous geopolitical vulnerability for the energy market in case of blockage of this strategic energy bottleneck[34].

Therefore, the Chinese naval presence in the Indian Ocean in order to preserve security along the Sea Lines of Communication has a positive impact for all Asian economies that strongly depend on these maritime routes for their energy imports, contributing to enhance regional and global energy security. Moreover, when it comes to the "guarantee of reliable revenues

[33] US Energy Information Administration, *World Oil Transit Chokepoints*, Last Updated 25 July 2017, pp. 4-6.
[34] Ibid.

from their final markets" – Middle Eastern and other global energy suppliers are worried about the security of the SLOCs and will benefit from Chinese efforts to provide security of supplies along the maritime routes.

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However, some countries regard the Chinese initiatives with suspicion: India especially fears China's rising naval presence in the Indian Ocean, traditionally considered under its geopolitical influence, also spreading concerns on the future potential transformation of several commercial ports (especially Hambantota in Sri Lanka, Gwadar in Pakistan, and Sittwe in Myanmar) in military bases – as it was recently the case with Djibouti – to contain Indian influence in the Indian Ocean[35]. At the same time, the rationale for the Chinese military base in Djibouti is the necessity to provide security for Chinese oil tankers crossing the Bab-el-Mandeb, threatened by Somali piracy and by political instability in Yemen: the case of the hijacked Sirius Star oil tanker in 2008 concretely shows that this energy route could be dangerous.

In order to demonstrate how the balance of the relations between suppliers and markets influences the global energy security's architecture, we can analyse the effects in the global energy scenario linked to the success of the shale revolution in the United States, which have become oil and gas exporters.

One of the main results has been to reduce the relevance of the energy exports from the Middle East to the United States and potentially to the EU markets, highlighting a condition of vulnerability of these energy suppliers: however, the projections about the rising energy demand from China and other Asian

[35] J. Fei, "China's Overseas Military Base in Djibouti: Features, Motivations, and Policy Implications", *China Brief,* vol. 17, no. 17, 22 December 2017; C. Lin (2011), p. 11.

countries will allow Middle Eastern oil and gas producers to further reorient and increase their export to East Asia, enhancing reciprocally profitable energy partnerships with Asian countries and sharing the same targets (to avoid the disruption of supply, to preserve the security of maritime corridors of export) in order to safeguard their energy security.

Furthermore, oil and gas imports from the US have progressively represented a feasible option for the Asian markets, in terms of diversification of suppliers, also allowing them to obtain energy from a geographically alternative route. Moreover, US oil and LNG tankers don't have to cross any sensitive maritime chokepoint (with the partial exclusion of Panama if these come from the US East coast) further enhancing their energy security's strategy.

China and other Asian energy importer economies have identified in the price another attractive issue of the US oil and gas, which is cheaper compared to exports from elsewhere, also thanks to the expansion of the Panama Canal in 2016 which reduced shipping times and prices of US energy exports to Asia.

In addition to US gas imports to Japan and South Korea, the energy cooperation between China and the United States appears strategically significant. Even if the US exported less than 3 bcm of gas to China in 2017, the opening of this energy cooperation will ensure another route to enhance energy security which will be further implemented considering the agreements to expand US LNG exports to China: in February 2018, Cheniere Energy and the China National Petroleum Corporation signed two long-term contracts for LNG from Sabine Pass and new LNG facility under construction in Texas[36].

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[36] Xinhua, "U.S. energy firm announces LNG export deals with China", Xinhuanet.com, 10 February 2018.

the US oil and gas, which is cheaper compared to exports from elsewhere, also thanks to the expansion of the Panama Canal in 2016 which reduced shipping times and prices of US energy exports to Asia: U.S. crude is currently some US$4 per barrel cheaper than Brent, off which most other crudes are priced[37].

Conclusion

Given the dangerous condition of vulnerability and the potential threats to its energy security, China has wisely undertaken a strategy to geographically diversify its oil and gas imports, trying to address its unbalanced dependence on energy imports delivered through maritime routes.

The strength of the Chinese energy strategy lies in the combination of overland and maritime routes, which allows Beijing to boost its energy security through new energy partnerships with countries with the world's largest oil and gas reserves (Russia, Qatar, Turkmenistan, Australia, and the United States), while attempting to lessen the influence of traditional energy partners such as Middle East oil producers.

The current energy scenario is characterised by an unprecedented era of abundant supply and lower prices, which are positive straights for importer countries like China and East Asian countries which can benefit of additional volumes of oil and gas at reduced prices.

The inclusion of the energy dimension within the wider framework of the Belt and Road Initiative – the ambitious geo-economic and geopolitical project led by Beijing – strongly highlights how the achievement of energy security represents one of the most important goals in Beijing's foreign policy. The Chinese naval presence in the Indian Ocean is linked to the necessary protection of the Sea Lines of Communication, key energy and economic arteries,

[37] CNBC, "How soaring US oil exports to China are transforming the global oil game", 9 February 2018.

and also coincides with the coherent implementation of the "Maritime Silk Road", perceived by some regional and international actors (India, the United States, and Japan) as a geopolitical initiative with a potential military dimension. Preserving security along the SLOC, China positively contributes to strengthening global energy security, hugely benefitting both supplier countries and nations dependent on energy imports which should cooperate to the achievement of this shared aim.

The current energy scenario is characterised by an unprecedented era of abundant supply and lower prices, which are positive straights for importer countries like China and East Asian countries which can benefit of additional volumes of oil and gas at reduced prices. However, even if these strategies could concretely support China's attempts to enhance national energy security, by avoiding the negative impact of sudden energy disruptions, the combination between the expected growth in energy demand and the distortions in the domestic energy scenario – high dependence on energy imports, insufficient endogenous production – could frustrate or downplay some of these positive effects.

Policy Recommendations for the EU

China's economic rise to the world stage represents one of the most significant breakthroughs in today's world economic and political affairs. While it has helped to foster world economic growth and integration, at the same time it is posing challenges to the current liberal international order.

China's economic development and integration in the world economy has helped secure a sustained global economic growth, especially since its entry into the World Trade Orzanization (WTO) in 2001. More recently, China's contribution to world economic development and growth has also manifested through the promotion of the Belt and Road Initiative (BRI), first announced in 2013, whose objective is twofold. First, it aims at creating new commercial routes between Asia and Europe: this should further enhance globalisation, by promoting connectivity between countries and regions. Second, the new infrastructural project allows the transfer of the overproduction capacity of the Chinese economy abroad, especially after the beginning of a "new normal" in 2013, which entailed a slowdown of economic growth targets.

However, China's economic growth and political assertiveness have also partly jeopardised the current international order, due to China's willingness to change the existing international institutional settings and the often-aggressive economic practices Beijing has carried out so far. The BRI, its positive economic impact notwithstanding, is also one of Beijing's additional means to challenge the current economic and trade institutions that govern state interactions. Most notably, through the BRI, China is advancing a framework for economic integration that is deeply based on bilateral agreements rather than multilateral

ones. Besides the BRI, other institutional projects have also been designed with the specific objective to challenge the existing world economic governance, such as the establishment of the Asian Investment Infrastructure Bank (AIIB), the BRICS' New Development Bank (NDB), and the Regional Comprehensive Economic Partnership trade agreement (RCEP).

At the same time, China's economic rise has resulted in heavily unbalanced relations between Beijing and other countries. Specifically, by protecting its market while relying on an export-led economy, China has managed to create economic and trade asymmetries with other countries, which are now dependent on China's resources and services for their own economic growth. Nowadays, BRI projects are making recipient countries more and more economically and financially dependent on China.

This ambivalent impact of China's rise – as an opportunity but also as a challenge to the global economic system – inspires the following major policy recommendations that the EU should consider for better coping with China as a new proactive global actor:

- **The EU should become a more attractive economic partner for both the developing and the developed world**. China has become the main trade and investment partner for many countries in the developing and developed world. Since 2015, the trend towards lower commodity prices (especially because of a contraction in China's growth as the world's largest importer) has contributed to further reducing the value of imports, and the trade surplus has risen further. This has given China an important leverage in international economic relations, to the extent that the country has become one of the main trade partners for a rising number of both developed and developing countries. This has undermined EU's economic and financial relations with those countries as well as its own attractiveness as a political-economic model. Therefore, **the EU should**

strengthen its external action activities towards the countries – especially in Southeast Asia and Central Asia – that are more likely to develop a strong dependence on economic relations with China.

- **The EU should safeguard its industrial and technological leadership**. China's rapid growth in the world economy results from its ability to acquire specialisations in new industries and precisely in new technology products (mainly electronic products). Besides China's widespread trade and economic practices (among which intellectual property rights disputes stand out as the most serious ones), which have often been a source of frictions with its major trade and investment partners, China is investing an enormous amount of resources in order to become the leader in a large number of high-tech industries. Made in China 2025 is the most evident manifestation of this trend. **The EU should cope with this technological transformation by promoting new technological development plans and at the same time should claim for effective cooperation with China in technical standard-setting with a view to reach mutual market access**.
- **The EU should become China's key partner on green revolution**. China is in the midst of a massive green revolution that is giving credence to its newfound climate leadership. The Middle Kingdom matters immensely to the future of Earth's climate and is, in fact, the essential player to be closely monitored, especially in a time when Chinese leadership is actively using climate policy to promote China's soft power, political reputation, and global image. This emphasises one crucial aspect: climate politics represents one of the major assets of Beijing's foreign policy. As a matter of fact, China's own approach to green revolution and climate policy increased its connections with both developing and developed countries. At the same time, these "green

revolution" policies have enhanced China's global stance as well as its growing role as a rising power. **Leveraging on the growing demand for its green technologies, the EU should build a long-term alliance with China on climate change by fostering technical cooperation with Chinese firms**.

- **The EU should encourage China to extend the market mechanism to a bigger share of the economy**. Notwithstanding China's reliance on markets as platforms to exchange goods and services, the Chinese industrial structure and regulatory state are not focused on increasing economic efficiency via greater competition, but extending state control over the broader economy. This creates barriers, inefficiencies, and asymmetries between China and other open economies. Beijing's way of dealing with economic regulations causes repercussions at the international level. In fact, a deep state control highlights how Beijing is actually promoting a system of globalisation that relies on might over adherence to the rule of law, negotiated agreements, and norms. Therefore, **the EU should find a common ground with China in order to encourage Beijing's government to adopt the necessary measures to extend the market mechanism to a much wider range of sectors, on a sector basis, so as to foster market economy treatment by sector**.
- **The EU should reaffirm its support to multilateralism *vis-à-vis* Chinese bilateralism**. China's approach to international relationships follows a strong revealed preference for bilateral agreements, despite Beijing's official position in favour of globalisation. This approach is motivated by the fact that bilateral relationships make it easier for China to implement its overall economic strategy, which relies on the political leverage of economic relations. Specifically, Chinese State Council has advocated the promotion of a "global network of

high-standard free-trade areas" based on China's periphery, which then should expand through the BRI and finally through the whole world. The BRI represents, therefore, the transmission belt between the periphery and the rest of the world. This new approach to international integration poses a serious threat to multilateralism. The EU would be able to protect itself from China's strategic diplomacy, which is making some EU Member States more and more dependent on China through a series of bilateral agreements (even if often informal ones, such as the 16+1 initiative) whose direct effect is undermining the cohesion and stability of the entire Union. Therefore, **the EU should promote the establishment of a full-fledged permanent policy dialogue to coordinate EU-China relations**, beyond yet encompassing the existing EU-China summit and the EU-China Connectivity Platform, and to deal with policy issues arising from potentially competing regional integration initiatives.

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