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China and Asia-Pacific in the World Economy: Trends and Opportunities for Peru

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About this initiative

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Note

This document has been the basis of three forthcoming publications. The first one is entitled “The Chinese Economy in the Context of Globalization: Trends and Opportunities for Peru”, which is a chapter of the book “Striving for Comprehensive Development: 19 Studies for the Bicentennial of Peru” (En Búsqueda de un Desarrollo Integral: 19 Ensayos en torno al Perú del Bicentenario) edited by the Research Center of the Universidad del Pacífico (Centro de Investigación de la Universidad del Pacífico – CIUP). Said chapter is a synthesis of the first section of this working paper.

The second forthcoming publication is entitled “Asia-Pacific in the World Economy: Trends and Opportunities for Peru”, which is composed of subsections 2.1 to 2.3 of the present working paper. That paper was presented at the APEC Study Center Consortium Conference (ASCCC) organized by the Institute of Malaysian and International Studies (IKMAS), Universiti Kebangsaan Malaysia, held on September 23, 2020 and it will be part of the documents published as a result of said event.

The third forthcoming publication is also entitled “The Chinese Economy in the Context of Globalization: Trends and Opportunities for Peru”, Trends and Opportunities for Peru” and it is comprised of the full-version of this Working Paper’s first section. This third paper was presented at the 9th China-Latin America High-Level Forum organized by the Universidad de Santiago de Chile, which was held on October 27 and 29, 2020. Likewise, it will be part of the documents published as a result of this event.

This study has benefited from the valuable contributions from two research assistants, the economists **Gabriel Arrieta** and **Favio Leiva**. They are, respectively, research affiliate and assistant to the director of the Center for China and Asia-Pacific Studies of Universidad del Pacífico. The author acknowledges and expresses her sincere gratitude for their support. Furthermore, the author would like to thank **Leolino Dourado**, who also is a research affiliate at this center, for his comments on this research and his collaboration on the translation into English of the study, from its original version in Spanish, and the final edition of this document.

This research finished in June 2020, but some pieces of data were updated to October or November 2020. However, there has not been a systematic update of the entire document.

About the author

Rosario Santa Gadea is the director of the Center for China and Asia-Pacific Studies at Universidad del Pacífico, Peru. She holds a doctor’s and a master’s degree in International Economics from Université de Paris Ouest Nanterre La Défense (France) and a bachelor’s degree in Economics from Universidad del Pacífico (Peru). She has been a fellow at the Weatherhead Center for International Affairs of Harvard University (USA) and a visiting research fellow at the Shanghai Institutes for International Studies (China). Dr. Santa Gadea has worked as an advisor to Peruvian ministers of Foreign Affairs, Defense, Economics and Presidency of the Council of Ministers, national coordinator of Peru at the Initiative for the Integration of Regional Infrastructure of South America, executive secretary of the Peruvian Center for International Studies, coordinator of the Institute for European-Latin American Relations (Madrid), official at the General Secretariat of the Andean Community, ad consultant for the Inter-American Development Bank, among other positions. Her research work includes books, articles, chapters, and working papers published in Latin America, China, the United States and Europe. She specializes in international trade and investment, comparative economic development, connectivity and regional integration. Currently, her research is focused on the Belt and Road Initiative, China-Latin America economic relations, Asia-Pacific in the globalized world economy and opportunities for Peru.

CHINA AND ASIA-PACIFIC IN THE WORLD ECONOMY:

TRENDS AND OPPORTUNITIES FOR PERU

Dr. Rosario Santa Gadea

Abstract

In 2021, Peru celebrates the bicentennial of its independence and also the 50th anniversary of the establishment of diplomatic relations with the People's Republic of China. Therefore, it is a timely occasion to reflect about what the agenda for Peru-China relations in the next decades should be, as well as to identify the Peruvian priorities in Asia-Pacific. Both questions are interconnected due to the central role of China in the context of the Peruvian insertion in that region. To contribute to this strategic planning, this study seeks to provide insights on the transformation of the Chinese economy and the trends for its future, as well as its international economic strategy. Furthermore, it also offers a comparative analysis between Peru and the economies of Asia and Oceania in the Pacific basin which are members of APEC, based on various indicators of competitiveness and productivity. This comparison aims at providing insights to enrich the bilateral agenda of Peru with China and Asia-Pacific in a way that contributes to structural changes in Peru. Finally, this study explores how China and Asia-Pacific are considered in the Peruvian national strategic planning. It shows an important weakness: the lack of a clearly defined vision for the country's insertion in the global economy, an issue which is reflected into the Peruvian economic projection towards China and Asia-Pacific. Therefore, it is necessary to define this vision for the country's insertion in the global economy and measures to realize it. For that purpose, the conclusions and recommendations from this study could be useful in regards to China and Asia-Pacific economies.

Keywords: economic transformation of China; Belt and Road Initiative; comparative analysis of Peru with Asia-Pacific economies; China and Asia-Pacific in the Peruvian national strategic planning; China and the United States and the world technological leadership

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Introduction

Forty years of economic reforms and opening-up in the People's Republic of China (hereinafter China) brought forth several important results for this economy and greatly strengthened its role in the world economy. It is important to explore this process of transformation of China, as it shows trends for the future. The first of them concerns the Chinese goal of further upgrading its role in the global economy, from “the world's factory” to a technological and innovation powerhouse. The second trend is the annual growth rate slowdown, which would constitute the so-called “new normal” for the Chinese economy. The third one refers to China's deeper economic integration with developing countries, not only in Asia, but also in Africa and Latin America, through the Belt and Road Initiative. Notably, one of the fundamental pillars of this initiative is connectivity, which is based on economic corridors that encompass various components, such as: production delocalization, investment in infrastructure, trade facilitation, among others.

China already is the main trading partner of Peru—having displaced the United States from that position—and it is also an increasingly important partner in terms of investments. However, Peru-China economic relations still follow a very traditional pattern. In trade, Peru exports predominantly raw materials and, in investments, the Chinese have focused largely on extractive sectors. To a certain extent, this pattern is moving towards greater diversification, but it is necessary to establish a long-term strategy aimed at transforming these relations into a driver that contributes to structural changes in Peru and an improved economic insertion in the Pacific Basin. To do so, Peru should harness the opportunities provided by the new trends and the international economic strategy of the Chinese economy.

Furthermore, it is advisable to reflect on and define the main focus of the Peruvian efforts regarding its insertion in the Pacific basin. To that end, helpful insights can be drawn from a comparative analysis between Peru and the 16 economies of Asia and Oceania in the Pacific basin which are members of the Asia-Pacific Economic Cooperation (APEC) based on some economic indicators, such as per capita income, competitiveness, logistic costs, trade openness, productivity, among others. It is common practice to compare Peru with the rest of Latin American, but doing so with respect to Asian economies reveals how Peru lags behind Asia-Pacific economies.

Peru has the important challenge of increasing competitiveness and productivity. That priority should also be reflected in the Peruvian agenda with the economies “on the other side” of the Pacific basin so that the engagement with those economies contribute not only to sustaining economic growth, but also to promoting economic and social development.

To explore these topics, this working paper has been structured in two sections. In the first one, it addresses the transformation, internationalization and future trends of the Chinese economy and the implications for Peru. This section is aimed at attaining a deeper understanding of the Chinese development and structural transformation in recent decades. For that purpose, it analyzes the drivers and trends of economic growth and changes in the productive and social structure (subsection 1.1). It also examines the patterns followed by the internationalization of the Chinese economy regarding trade and investment (subsection 1.2).

The formulation of systematic policies, national plans and long-term goals are a permanent institutional component of China, so it is essential to have a grasp of them in order to understand the course of the Chinese transformation (subsection 1.3). An analysis of the Belt and Road Initiative complements this reflection (subsection 1.4). Due to its special relevance for developing countries, this initiative presents a framework that

Peru can use to address the recommendations offered by this study in order to enrich its relations with China, especially considering the role that the country could play in transpacific connectivity. Finally, to put the present analysis in context, it looks into the current state of affairs on the global stage, which is marked by tensions between the two leading economies, the United States and China (subsection 1.5).

The second section of this research analyzes the challenges for the Peruvian economic insertion in the Pacific basin. This region stands out for its economic experiences and dynamism, which contributes significantly to economic growth globally. Various experts consider the 21st century as the “Pacific Century”, as countries like China would reach the levels of economic development necessary to become fully developed economies. This section is divided into an exploration of the importance and dynamism of Asia-Pacific economies (subsection 2.1), a panorama of Peru–Asia-Pacific commercial relations and pending challenges (subsection 2.2), and a comparative analysis of Peru with respect to the economies in this region (subsection 2.3). This panorama shows that there are interesting references in Asia and Oceania with which Peru should explore lessons learned that could contribute to its own development process, especially considering that the Peruvian economy lags significantly behind this group.

Finally, the study examines China and Asia-Pacific in the Peruvian national plans, analyzing to what extent national visions and plans pay attention to this region (subsection 2.4). To this end, firstly, it explores how the international economic insertion of Peru is considered in national strategic planning at a more general level. Secondly, it identifies any references to China and Asia-Pacific in that framework. The analysis shows that Peru has an important weakness, which is the lack of a clearly defined vision for the country’s insertion in the global economy, an issue which is also reflected in the Peruvian economic projection towards China and Asia-Pacific. Hopefully, the insights offered by this study can contribute to addressing this pending task.

The present research includes an extensive bibliographic and statistical study that has been possible thanks to the valuable contribution of two research assistants. Gabriel Arrieta, economist from Pontificia Universidad Católica del Peru. He currently is a research affiliate at the Center for China and Asia-Pacific Studies and has been assistant to the Economics, Business and International Relations Area of the Research Center of the Universidad del Pacífico (Centro de Investigación de la Universidad del Pacífico, CIUP). And Favio Leiva, who holds a master’s degree in International Economic Development from the University of Nagoya (Japan) and a bachelor’s degree in Economics from Universidad del Pacífico. He is currently assistant to the director of the Center for China and Asia-Pacific Studies. The author acknowledges and expresses her sincere gratitude for their support. The author also would like to thank Leolino Dourado for his valuable comments on this research and his collaboration on the translation of the study, from its original version in Spanish, and the final edition of this document. He holds a master's degree in International Relations from Peking University, currently is a research affiliate and former assistant to the director of the Center for China Studies and Asia-Pacific at Universidad del Pacífico.

Furthermore, this research benefited from meetings held with experts to discuss the approach and some of the recommendations of this study. In this regard, the author would like to express her sincere gratitude to Ambassador Allan Wagner Tizón, director of the Diplomatic Academy of Peru, former minister of Foreign Affairs and former president of the APEC Vision Group (AVG). He offered valuable commentary on this research in the conference “Bicentennial Project of Peru: Contributions for its Development” organized by CIUP on May 28 and 29, 2020. Subsection 1.5 of this document incorporates the full version of said commentary. It is also worth highlighting the meetings held with Dr. Javier Abugattás, president of the Board of Directors of the

National Center for Strategic Planning of Peru (Centro Nacional de Planeamiento Estratégico – CEPLAN) and with Ambassador Elard Escala, then director general for Asia and Oceania of the Ministry of Foreign Affairs of Peru (Ministerio de Relaciones Exteriores del Peru – MRE). A special thank you to them for the information and guidance offered.

Finally, the author would like to acknowledge and express her appreciation to Professor Zhang Jun, dean of the School of Economics and director of the China Center for Economic Studies att Fudan University. He was the keynote speaker at the annual international symposium organized by the Center for China and Asia-Pacific Studies at Universidad del Pacífico, which was held on August 20, 2019 at the university campus. Professor Zhang delivered a presentation on “The Transformation of the Chinese Economy: Four Decades of Reforms and Internationalization. What's next?”. His insightful presentation has contributed greatly to guide the work carried out in this study, as it helped identify the main characteristics of the transformation of the Chinese economy.

It should be noted that the interpretations contained in this working paper, as well as any errors that may exist, are the sole responsibility of the author.

Section 1.
Transformation and internationalization of the Chinese economy, future trends and implications for Peru

1.1. The transformation of the Chinese economy after four decades of high growth

China holds the position of second or even first economy in the world in terms of Gross Domestic Product (GDP), depending on the method used to measure it. Based on GDP in current dollars, China is the second economy since 2010 (World Bank, 2020b). However, in terms of GDP in purchasing power parity (PPP) in constant 2011 dollars, China has been the leading world economy since 2014 (Hawksworth et al. 2017).

According to various growth theories (Solow, 1956), there are three major drivers of GDP growth: 1) employment growth, 2) GDP per capita growth, and 3) Total Factor Productivity (TFP) growth. Other approaches correlate growth to rural-urban migration and the structural change from agriculture to industry (Lewis, 1954; Todaro, 1969). In this subsection, this study analyzes the transformation of the Chinese economy concerning these variables.

Capital and savings accumulation as drivers of growth

After the economic reforms introduced in 1978 (Chow, 2004; Zhang, 2018), the Chinese annual economic growth rate became substantially higher than the world average in the period 1978-2018 (9.4% and 2.9%, respectively) and growth volatility decreased. From another perspective, the Chinese share in the world GDP grew from 1.1% in 1960 to 13.1% in 2018 (in constant 2010 dollars), as shown in Figure 1. Naturally, this period of sustained growth contributed to a substantial increase of the GDP per capita and life expectancy. The country also upheld high levels of investments and savings as a percentage of the GDP (Ang, 2009; Curtis et al., 2011; Yao et al., 2011; Zhang, 2019).

A strategy based on high levels of investments necessarily results in increased savings, which can be external or internal. In the case of China, it was internal savings (Zhang, 2019), mainly from companies and individuals, rather than from the government.

Companies, in particular, benefited from low interest rates and tax breaks to promote investments, which contributed to productivity growth.

However, it should be noted that these high rates of savings are not sustainable in the very long term (Barro, 2016). Regarding China, Figure 2 shows that the share of investments in the GDP has been decreasing, as the growth model is changing towards one that is based more on domestic consumption (which will be analyzed later in this section).

Productivity growth and production structural change

The Chinese GDP per capita has grown steadily at an annual rate of 3.2% between 1960 and 1978, and at an average of 8.4% after that period (National Bureau of Statistics of China, 2019a; World Bank, 2020b). Such growth rates are higher than the United States and the world averages, which has been progressively reducing the gap between China and United States, at the same time as it has been pushing the giant Asian up in the world ranking on GDP per capita (Zhang, 2019). Figure 3 shows an extremely high correlation between GDP per capita growth rates and the average productivity per worker.

It should also be noted that, according to the information provided by Feenstra et al. (2015), based on Penn World Tables, China experienced a decreasing or stagnant TFP growth rate until the economic reforms and opening-up policy were introduced in 1978. They represented a turning point for productivity levels, as it went on a rising trend afterwards (see Figure 4). Such growth is directly linked to structural changes in China, which can be seen in the following developments: 1) rural-urban migration, 2) increased GDP of the manufacturing and services sector, and 3) employment growth in these sectors.

Prior to the reforms promoted by Deng Xiaoping, the agriculture sector's relative contribution to the GDP was already declining and manufacturing was rising. However, after the reforms, the share of agriculture fell considerably, while manufacturing remained relatively constant at around 46% of the GDP (see Figure 5). As for the services sector's share, it began to grow substantially after the financial crisis of 2008 (Zhao & Tang, 2015).

Considering this development and the most recent trends, Figure 5 suggests that the GDP of the services sector would settle at around 52% of the total, whereas manufacturing would remain close to 40% and agriculture would drop to 8%.

Rural-urban migration and the evolution of employment

Urban growth is a challenging process observed in all developing countries. China managed and planned well this process, including the necessary investments in infrastructure to promote connectivity between urban centers, which contributed to the proper integration of migrant workers into productive jobs, while also limiting the number of low-productivity employment. China's urban population has grown steadily vis-à-vis the rural population, as observed in Figure 6. The former demographic group represented about 12.5% of the population in 1952, compared to almost 60% in 2018. The turning point occurred in 1978 (World Bank, 2020b), coinciding with the economic reforms introduced in that year (Zhang, 2018 and 2019).

The urban population growth increased productivity. The current challenge for China is to implement policies aimed at adjusting the population distribution in urban areas (Shen et al., 2019). Relatedly, the Chinese population growth rate has been constantly decreasing for decades. On the one hand, according to Barro (2016), it has been

contributing to raising the GDP per capita growth rate. However, on the other hand, this trend also poses challenges, as low fertility leads to an aging society, which puts pressure on the pension and welfare systems (Campbell, 2019).

From another perspective, foreign direct investment (FDI) has also been playing a very important role in increasing productivity as a result of know-how transfer, among other factors. It has also contributed to creating thousands of jobs for the population that migrated from the countryside to the city. Figure 7 shows the evolution of employment by sectors in China.

Currently, one fifth of the economically active population works in agriculture and lives in rural areas, which suggests that there would still be room for modernization and structural change in the country (Zhang, 2019). Along these lines, Wei and Kwan (2018) indicated that there is still room for such changes in various Chinese provinces. This would help realize China's growth potential for decades to come.

Poverty reduction and inequality rise

A high-growth strategy that properly manages urban-rural migration contributes to reducing poverty (Ravallion, 2011). Data from the World Bank (2020a) shows that poverty levels in China have decreased dramatically, from 99.1% in 1981 to 5.4% in 2016. Extreme poverty specifically has dropped from 88.3% in 1981 to 0.5% in 2015 (see Figure 8).

According to the most recent estimates from China, poverty would represent only 1.7% of the total rural population in 2018 (National Bureau of Statistics of China, 2019b)[1]. It should be observed that the methodology adopted is not necessarily comparable to that of the World Bank. Naturally, these achievements are analyzed in various publications and constitute one of the most remarkable results from the economic growth and structural changes carried out in China. However, it is important to note that a strategy dedicated to fighting poverty was also at play, including several specific programs targeting rural areas (Liu et al., 2020).

Notwithstanding, some analysts consider that China went “from equality of deprivation to disparity of prosperity” (Wan et al., 2018). The various estimates of inequality show that it has grown from the time reforms were introduced up to the international financial crisis of 2008, remaining stable since then[2]. The highest level of inequality seems to be between rural and urban areas, rather than within those groups.

China’s new normal and the change of driver of economic growth

High levels of savings and investments in China resulted in overcapacity, which generated an oversupply that needs to be absorbed by foreign markets (Amighini, 2016). Furthermore, the 40 years of rapid dynamism led to an increase in labor costs, which contributed to lowering growth rates (Zhang, 2019). Accordingly, China has moved towards a new growth model based more on domestic demand, instead of continuing to depend mainly on the international market, which entails reducing the overinvestment that has historically been occurring in the country (Schnabl, 2019). This model would

[1] The source consulted does not include data on poverty with respect to urban population.

[2] The GINI coefficient measures the level of inequality in a country. A Gini index of 0 represents perfect equality, while an index of 1 implies perfect inequality. In the case of China, some of the existing estimates include: around 0.55 (Piketty et al., 2019), between 0.4473 and 0.394, depending on whether adjustments are made or not (Ravallion & Chen, 2007) and 0.437 (World Bank, 2020a).

count with a growing middle-class that can sustain long-term consumption (World Economic Forum, 2018).

Under the current “new normal” phase, growth rates are expected to remain at around 6.5%, according to the Chinese five-year plans (see subsection 1.3). Figure 1 indicates that annual growth rates fell below 10% in the period after 2010, reaching 6.6% in 2018. Most recently, it is estimated that the country grew 6.1% in 2019 (National Bureau of Statistics of China, 2020), which is within the expected range.

Undoubtedly, China represents an interesting case to be studied due to the experiences and lessons that can be learned from its transformation process. Its strength is based on, among other factors, being the economy that has had the highest productivity growth in Asia-Pacific since 1990 (see Table 1). Looking ahead, it is projected that China will be the world’s leading economy by 2050. The most significant changes would happen in the composition of the top five biggest economies. According to Hawksworth et al. (2017), China, India, the United States, Indonesia and Brazil, in that order, would compose the top five by 2050 (in terms of GDP PPP constant 2011 dollars).

1.2. The internationalization of the Chinese economy: trade and investment liberalization

In the past four decades, China went on from being an economy practically in autarky and lagging behind to reaching important levels of openness, as observed in the increased level of trade and foreign direct investments (both inward and outward).

World’s leading exporter and a top destination and source of FDI

China has become the world's leading exporting economy. In fact, its share in global exports has grown steadily over the last twenty years, propelling the country to surpass the United States in 2006 and the European Union in 2014 (EU). In 2018, China accounted for 12.3% of world exports, while the EU and the United States reached 11.4% and 7.0% respectively. The share attained by the Chinese represented a three-fold increase in relation to that of 2001 (see Figure 9).

The process of transformation of the Chinese economy involved a growing participation in global networks for the production of goods. Indeed, China acquired the central role of the “world’s factory” and is considered one of the few developing countries to be deeply integrated into global value chains (World Bank et al, 2017).

Nonetheless, in addition to labor-intensive activities, which were considered as China's main comparative advantage in the past decades, the country has increased its industrial capacity to produce and export high-technology goods, moving up the global value chains. To do so, it has delocalized part of its productive capacity to other countries, boosted connectivity and innovation, and introduced improvements in production processes to reduce costs (World Bank et al., 2017, pp. 65, 133).

Regarding inward FDI, China accumulated a stock of US$ 1.1 billion in 1980, which made the country only the 46th most important destination of foreign investments worldwide. By 2000, the same stock reached US$ 193.1 billion, placing China in the 8th position in the world ranking. Finally, by 2018, the stock of FDI in China reached US$ 1,6 trillion, effectively putting the country among the top five destinations of foreign investments (see Table 2). Another fact to consider is that China is the main destination of investments in manufacturing in the Asia-Pacific region (APEC, 2016).

The evolution of Chinese outward direct investments presents a similar picture. In 1981, the Chinese stock of FDI overseas only reached about US$ 40 million, ranking 46th in the world. By 2000, that stock rose to $ 27.8 billion, corresponding to the 22nd position worldwide. Finally, China reached position number 3, after the United States and the Netherlands, with a stock of US $ 1,9 trillion in 2018 (see Table 3).

In any case, it is important note that data on FDI can present certain distortions. A study published by the International Monetary Fund indicates that 40% of the world's FDI could be considered "phantom investments", that is, investments in "empty corporate shells" located in tax havens that only work as intermediaries. Some of the most important financial centers where this process occur includes the Netherlands and Hong Kong (Damgaard, Elkjaer, & Johannesen, 2019, pp. 26-27). In the case of China, the reported data is distorted by the so-called "round trip investment", which refers to Chinese investments in tax havens (especially Hong Kong) that later return as inward FDI in order to take advantage of lower taxes and other benefits (OECD, 2011, p. 185; Xiao, 2004, p. 11). This "round trip investment" would have reached a quarter of the stock of FDI in China by 2017 (Damgaard, Elkjaer, & Johannesen, 2019, p. 18).

Despite these observations, it is clear that China is playing an increasingly important role in regards to investments. Both tables put in evidence the remarkable evolution of China as a destination and a source of foreign investments, which placed the country among the top world economies in terms of inward and outward FDI.

Special economic zones to attract investments and process exports

Aiming at modernizing the economy, the reform process introduced by Deng Xiaoping focused on global markets as one of its centerpieces (Naughton, 1993), which resulted in increased exports and inward foreign investments (Zhu, 2018). One of its main specific policies was the establishment of a Special Economic Zone (SEZ) in Shenzhen (in the southern province of Guangdong), which was considered as the great "window to the outside" (Yuan et al., 2010). Bureaucratic and fiscal restrictions were relaxed in SEZs (in Shenzhen and elsewhere) to provide a preferential treatment in relation to the rest of the country (Jenkins, 2019, pp. 16-17).

Four SEZs were created initially (Shenzhen, Zhuhai, and Shantou in Guangdong province, and Xiamen in Fujian province), which became the main initiatives to attract FDI (Jenkins, 2019; Stoltenberg, 1984). These especial zones, which enjoyed preferential conditions and the provision of public facilities, aimed mainly at "attracting foreign investors to establish companies especially focused on exporting their final goods to the rest of the world", thus stimulating economic growth (Xu, 1981). Another important purpose of SEZs was to foster technology transfer from the companies established in such areas (Leong, 2013).

The creation of the first four SEZs is in line with the export-oriented processing zones model, which was successful because of, among other factors, adequate logistical and customs infrastructure. These conditions were key to its development and helped boost China's participation in various global value chains (World Bank et al., 2017 p. 6). The success of these first SEZs led to the creation of thousands of other manufacturing centers and industrial clusters throughout the country, which also became important global production centers (Zhang, 2019).

According to UNCTAD (2019), there are five categories of SEZs: "(i) Economic and technological development zone; (ii) High-tech industrial development zone; (iii) Special customs zone; (iv) Border/cross-border economic cooperation zone; and (v) Other types". Based on this definition, China currently has 2,543 economic zones, accounting for more

than half of the SEZs worldwide. The provinces of Guangdong and Fujian (where the first four SEZs were established) accounted for 32.1% of Chinese exports in 2017, featuring Guangdong as the main exporting region of the country (National Bureau of Statistics of China, 2020), all of which is indicative of the key role played by SEZs in China as a tool to attract investment and encourage exports.

China in the World Trade Organization and the Going Out strategy

China's entry into the World Trade Organization (WTO) in December 2001 is considered one of the main milestones in its process of economic opening-up. The accession entailed making various concessions at the multilateral level and internal reforms to guarantee a higher level of liberalization. In China, it accelerated the implementation of reforms conducive to economic growth and helped consolidate the process of turning the country into the "world's factory" (Yuan, 2014). At the same time, greater economic openness contributed to its trading partners becoming more integrated with the Chinese economy, which had been isolated by significant tariff and non-tariff barriers.

According to Adhikari and Yang (2002), joining the WTO benefited not only China, but also its trading partners. Along these lines, Wakasugi and Zhang (2016) pointed out that China's accession to the WTO and the economic reforms arising thereafter had a positive effect on the productivity of exporting companies, both those with foreign and domestic capital.

In 2016, during a speech at the World Economic Forum Summit, President Xi conveyed China's vision for the world economy, which is to "remain committed to developing global free trade and investment, promote trade and investment liberalization and facilitation through opening-up and say no to protectionism" (Xi, 2017a). The importance of this vision is even greater than that of accession to the WTO in 2001, since China is currently one of the main players in the world economy. Indeed, it contrasts with other positions, particularly that of United States in recent years, as it shows an attitude oriented towards economic globalization.

Trade agreements

One of the main policies associated with the current path of trade liberalization is the negotiation of trade agreements with different countries. Currently, China has 16 trade agreements in force and more than 10 agreements under negotiation (MOFCOM, 2020). However, it should be noted that these trade agreements only cover 23.3% of Chinese exports (International Trade Center, 2020), which means that negotiations with larger and more significant trading partners are still pending, such as with the United States, Japan, India, among others.

At the regional level, China completed the negotiations of the Regional Comprehensive Economic Partnership (RCEP)[3], which is considered one of the two "building blocks" for the construction of the Free Trade Area of the Asia Pacific (FTAAP) along with the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)[4], also known as the TPP-11.

[3] In November 2019, the 15 countries negotiating the RCEP reached an agreement: 10 members from ASEAN (Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam), Australia, China, Japan, New Zealand and Rep. of Korea. At the same time, India decided to withdraw from the negotiations. The RCEP was finally signed by the aforementioned 15 countries on November 13, 2020.

[4] Composed of 11 countries: Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam. Note that 6 of these countries also take part in the RCEP (Australia,

Additionally, China is making efforts to upgrade its existing trade agreements, aiming to generate more comprehensive ones, featuring greater liberalization and deeper cooperation with its trading partners. Upgraded agreements were successfully negotiated and are already in force with the Association of Southeast Asian Nations (ASEAN), Chile, Singapore, and Pakistan. Meanwhile, upgrades are under negotiation with Peru, the Republic of Korea and New Zealand.

Going Out strategy

China's accession to the WTO concurs with the first years of one of the most ambitious initiatives of the Chinese government: Going Out strategy 1.0, introduced in 1999. On the on hand, it is aimed at increasing Chinese companies' investments overseas in order to expand the market for their products (Oficina General del Consejo de Estado – República Popular China, 2006). While, on the other hand, it sought to secure access and availability of natural resources necessary to continue and expand national industrial production. That helps explain the internationalization of companies such as China Petroleum Corporation (CNPC), China Petroleum & Chemical Corporation (Sinopec) and Aluminum Corporation of China (Chinalco), among others (China Policy, 2017).

Nonetheless, this plan had numerous limitations due to certain weaknesses of the companies at that moment, as they still did not have the necessary experience to go global. Moreover, there were problems of competitiveness, technology and limited development of the distribution network at the international level (Oficina General del Consejo de Estado – República Popular China, 2006).

The Going Out strategy 1.0 should be considered as a first exploratory attempt of promoting investments overseas, which marks a change in China's investment paradigm. Between 1978 and the late 1990s, China favored the attraction of investments to its territory, then it went on to also invest overseas, a process which was expanded since the beginning of Xi's administration under the Going Out strategy 2.0 (introduced in 2013). This strategy has a more ambitious vision and differs from the first version, as the Chinese companies are more integrated into the world economy, having more experience to invest in other countries and compete in various markets.

According to China Policy (2017), the technological characteristics and expertise that Chinese companies have acquired, in addition to their financial capacity, enable them to harness investment opportunities across the globe, particularly in sectors like construction, manufacturing and energy in developing countries. Furthermore, the newly created Asian Infrastructure Investment Bank (AIIB), an initiative promoted by China, will be another important driver of this strategy, as investments in infrastructure will contribute to exporting Chinese know-how and technology (Yeo, 2018).

Figure 10 illustrates the importance of China both as a destination and source of foreign investments. Interestingly, it shows that the Chinese economy reached a position of net investor in 2015, as the outflows of FDI surpassed the inflows for the first time in its history (US$ 147.7 compared to US$ 135.6, respectively). However, the change reversed in 2018, as inflows surpassed outflows. UNCTAD (2020b) projected that China received US$ 140 billion of FDI in 2019, but there are no estimates for Chinese investment outflows.

It is necessary to continue observing the evolution of such investments in order to ascertain if Chinas will consolidate a position of net investor overseas. Certainly, the

Brunei Darussalam, Japan, Malaysia, New Zealand, and Vietnam). CPTPP is built upon the Trans-Pacific Partnership (TPP), which also included the United States, country that withdrew from the agreement in 2017.

development of the Belt and Road Initiative will favor this trend, seeing as it entails financing and investments in infrastructure, as well as the establishment of Chinese companies in industrial parks in developing countries (see subsection 1.4).

1.3. Chinese economy towards 2050: vision and goals

The Chinese government's ability to design systematic policies, national plans and long-term goals is a permanent institutional component of China. In that regard, it is important to explore three significant milestones: Made in China 2025, a plan adopted in 2015; the 13th Five-Year Plan (2016-2020), and the long-term vision presented in the last congresses of the Chinese Communist Party (CCP). These initiatives seek to contribute to China's rise as the world's leading economy.

Made in China 2025

Introduced by Prime Minister Li Keqiang in 2015, this plan is aimed at developing and strengthening ten selected sectors that will allow China to take the technological leap towards high value-added productions. These are “new information technology, numerical control tools, aerospace equipment, high-tech ships, railway equipment, energy saving, new materials, medical devices, agricultural machinery and power equipment” (State Council – Guo Fa, 2015).

This plan is the first step in a roughly thirty-year global program that intends to turn China into a manufacturing powerhouse. It will be developed in three phases: (i) by 2025, the gap with other countries should be reduced through greater innovation, productivity, and integration of ICTs in the industrialization process; (ii) by 2035, China will seek to strengthen competitiveness and become a leader in several innovation industries, and finally, (iii) by 2049, the country should lead innovation worldwide and surpass the main economic powers (State Council - Guo Fa, 2015).

Specifically, it is about ensuring that the production of key technologies and advanced equipment do not depend on the provision of inputs by other countries, as well as about improving the quality of Chinese exports, and increasing the efficiency of production processes and use of resources. Four keywords reveal the meaning of this initiative and constitute priorities of the Chinese government in relation to manufacturing, namely: innovation, quality, efficiency and financing.

First, innovation is seen as the main driver to improve productivity in the Chinese manufacturing sector, thereafter, boosting economic growth. It seeks to develop a chain of innovation including companies of all sizes, strengthen research in key technologies, improve education, increase patent registration and enhance the standards for intellectual property protection (State Council - Guo Fa, 2015).

Currently, the Innovation Index of the World Intellectual Property Organization (WIPO)[5] places China in the 14th position out of 129 countries, leaving the Chinese behind the majority of developed countries, including Switzerland, Sweden, the United States, Germany and Singapore. Therefore, China is faced with the challenge of reaching the forefront among innovative countries. This index suggests that the country should overcome deficiencies in terms of regulatory framework and in the development and trade of ICT-related services (Cornell University, INSEAD, & World Intellectual Property Organization, 2019).

[5] This index considers seven pillars: (i) Institutions, (ii) Human capital and research; (iii) Infrastructure, (iv) Market sophistication; (v) Business sophistication; (vi) Knowledge and technology outputs; and (vii) Creative outputs.

Indeed, the Made in China 2025 plan focuses on these two weaknesses, since it contemplates a tax reform to promote the modern manufacturing industry. It also seeks to foster greater integration between information technology, Internet, industrialization and the development of the new generation of 5G-related ICT, among others (State Council - Guo Fa, 2015).

Second, concerning the objective of increasing the quality of Chinese manufacturing products and achieving worldwide recognition for their high-standards, companies must use better inputs in production lines in order to change the perception of consumers in relation to the quality of their products. The plan envisions the construction of "high-quality brands", especially in industries like automobiles, high value-added machinery, railway systems and technical equipment (State Council - Guo Fa, 2015).

Third, productive efficiency in high-technology sectors is key to increasing companies' competitiveness level. The plan includes measures to adjust the structure and productive capacity in some high-technology sectors, reducing the overcapacity of companies and seeking to increase collaborations between large, medium and small firms within the production chain (State Council - Guo Fa, 2015). Forth, regarding financing, the Export-Import Bank of China (Eximbank) and the National Development Bank of China would offer loans with low interest rates. In addition, medium and small companies could be eligible to receive subsidies (Institute for Security & Development Policy, 2018).

The 13th Five-Year Plan

A distinctive characteristic of Chinese plans is the ambition of the objectives set. With that in mind, it is important to analyze the five-year plans guiding China, as they can provide insights on how other countries can adjust their strategy of engagement with China in order to harness opportunities opened with such plans.

The 13th Five-Year Plan further develops the guidelines for structural changes that were initially adopted in the 12th Plan. That is, the shift from an export- and FDI-oriented economic model to a consumption-driven economy based on the rise of a broad middle-class with a growing purchasing power (World Economic Forum, 2018, p. 9).

This structural change does not entail neglecting other drivers that propelled the Chinese economy in past decades. On the contrary, the country seeks to modernize productive sectors in order to realize their full potential, as well as create conditions for companies to compete, develop rural areas and guide exporting companies to higher value-added and higher technological content activities in both goods and services (NDRC, 2016).

This is the Chinese strategy to continue to sustain a medium-high economic growth rate of around 6.5%. Furthermore, the plan is aimed at improving the standard of living of the population through increased consumption, urbanization and greater access to high-quality public services. At the same time, it is geared toward enhancing environmental protection, as well as modernizing the Chinese administration and institutions.

The 13th Five-Year Plan provides institutional support to the objectives outlined in the Made in China 2025 plan, since it also considers innovation, and the improvements in productivity arising thereafter, as key for China to become a manufacturing powerhouse. In fact, it intends to boost China's capacity to develop homegrown innovation. To promote this new driver of growth, the Chinese economy needs to provide the necessary conditions for companies and individuals to develop their potential, including reforming intellectual property laws (WIPO, 2008).

Towards the 14th Five-Year Plan

The discussion on the 14th Five-Year Plan (2021-2025) has started gaining greater relevance and some analysts consider that it will be “the main legacy of the administration of President Xi Jinping”, consolidating China's vision of becoming the main world power (Delgado & Martínez, 2017, p. 12). From another perspective, Neuweg and Stern (2019) have argued that the 14th Plan will incorporate new dimensions—in relation to the past 40 years—to China’s vision for future development. In particular, the inclusion of the Sustainable Development Goals - SDGs (Asamblea General de las Naciones Unidas, 2015), which focuses mainly on social well-being and environmental protection.

Along these lines, for Baxter and Zhe (2019), this new plan will include the steps to carry out an energy transition towards lower carbon emissions. For his part, Prime Minister Li Keqiang stated that the goals should adhere to the people-centered principle and put them as the main beneficiary of the various reforms. Moreover, according to Prime Minister Li, China will continue to work on strengthening the process of industrial upgrade, developing the private sector, promoting investment in infrastructure, and improving competitiveness through innovation, while maintaining an open economy (Office of the State Council - the People's Republic of China, 2019).

The 2021-2025 period of the 14th Five-Year Plan is crucial, as it concurs with the target year of Made in China 2025 plan and, therefore, it should lay the foundations to continue with the necessary reforms to achieve the goals set. Thus, the five-year plans are an essential component of a mechanism aimed at facilitating the achievement of China’s goals.

Towards 2050: the two centenary goals

The 19th CCP Congress, held in October 2017, provided the Chinese president with the opportunity to present to the world the “Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era”. In this framework, it is considered that “the principal contradiction facing Chinese society has evolved. What [China] now faces is the contradiction between unbalanced and inadequate development and the people’s ever-growing needs for a better life” (Xi, 2017b). That is why various plans seek to distribute more efficiently the economic bonanza from recent decades, reducing the imbalance between regions, urban and rural areas, and industrial sectors. In addition, according to Han (2018), the need to promote further economic development calls for changing the model from “made in China” to “designed and/or created in China”.

In regards to goals, the CCP congresses have given rise to the so-called “two centenary goals” (Xi, 2017b), whose origins go back at least to the 15th Congress in 1997 (Jiang, 2002). The first of these centenary goals is to “finish building a moderately prosperous society in all respects” by 2021, year that marks the 100th anniversary of the CCP (Xi, 2017b). The second one is to make China “a fully developed and advanced nation by 2049”, when it is celebrated the 100th anniversary of the foundation of the People's Republic of China (Zhang, 2017).

At the 19th Congress, President Xi proposed two phases of fifteen years to meet the second goal. In the first phase, from 2020 to 2035, China should see that “socialist modernization is basically realized”. In the second phase, from 2035 to 2050, China should develop into a “great modern socialist country that is prosperous, strong, democratic, culturally advanced, harmonious, and beautiful”. By then, China will become the leading global power and the population will enjoy better living conditions (Xi, 2017b).

Concerning the economy, structural reforms on the supply side will be deepened. That is to say, reforms related to Made in China 2025 and the 13th Five-Year Plan, which includes improving manufacturing productivity, fomenting manufacturing sectors with higher technological content, and exploiting the full potential modern technology (e.g. Internet, big data, artificial intelligence, among others) In addition, China intends to take part only in middle to high segments of global value chains, which entails developing a more qualified local workforce (Xi, 2017b).

Furthermore, it stresses the importance of modernizing and improving the socialist market economy in China. To this end, property rights and the process of turning Chinese enterprises into world-class firms will play an important role. Along with this, high-quality public health and education should be provided to the Chinese people, thereafter closing a gap with developed countries. Finally, the Belt and Road Initiative is highlighted as a key driving force for the Chinese economy to become fully open (Xi, 2017b).

1.4. The Belt and Road Initiative: opportunities for Peru?[6]

In 2013, President Xi Jinping proposed for the first time the construction of the Silk Road Economic Belt and the 21st Century Maritime Silk Road (Belt and Road Initiative, for short), which is based on the historical routes used for trade between China, Central Asia, Europe and Africa. In March 2015, the National Development and Reform Commission, Ministry of Foreign Affairs, and Ministry of Commerce (NDRC, MFA, & MOFCOM, 2015) issued the policy paper "Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road".

Following this, the 13th Five-Year Plan (March 2016) noted that, among other aspects, the Initiative would improve infrastructure and multimodal transportation networks in order to boost connectivity between sub-regions within Asia and between Asia, Europe and Asia would Africa. The development of strategic maritime hubs and industrial clusters around major ports would improve the operation of maritime routes (NDRC, 2016).

For its part, the 19th CCP Congress indicated that the Initiative will contribute to promoting balanced development in China and will foment openness as a result of the land and sea connections developed between east and west. Connectivity, conceived as a new platform for international cooperation, would contribute to creating new drivers for development (Niu, 2017).

Economic corridors and routes

This Initiative is not only about expanding trade, as the original historical routes, it is "a development program meant to boost trade and investment around two axes: the Silk Road Economic Belt, a series of overland corridors linking China with Europe via Central Asia and the Middle East, and the 21st Century Maritime Silk Road, a cluster of sea routes connecting coastal China to the Mediterranean via the Pacific and Indian Oceans, and along part of the African coastline" (Erthal & Gonzáles, 2018, p. 7).

To illustrate, Map 1 shows the main maritime and land routes of the Belt and Road Initiative. Meanwhile, Map 2 displays the economic corridors that would connect China with countries in its vicinity, namely: New Eurasian Land Bridge, China-Mongolia-Russia, China-Central Asia-West Asia, and China-Indochina. Additionally, the China-Pakistan

[6] This subsection builds upon previous publications from the author of this working paper (i.e. Santa Gadea, 2018a, 2018b, 2018c, 2018d, 2019a, 2019b, 2019c).

and China-Bangladesh-India-Myanmar economic corridors are also considered “closely related to the Belt and Road Initiative” (NDRC, MFA & MOFCOM, 2015).

This blueprint has evolved over time, as evidenced by the Joint Communiqué of the Leaders' Roundtable of the 2nd Belt and Road Forum for International Cooperation held in Beijing on April 25-27, 2019. The communiqué lists 35 initiatives in the annex “Economic corridors and other projects catalyzed and supported by connectivity”, which shows the significant expansion of the Belt and Road Initiative over the years (see Table 4).

It is envisioned that the economic corridors will be composed of railways, highways, infrastructure for maritime and air transportation, oil and gas pipelines, and aerospace integrated information network. These would comprise “the main targets of infrastructure connectivity” (Office of the Leading Group for the Belt and Road Initiative, 2017, p. 10). However, infrastructure is not the only building block of the economic corridors, other important components include industrial and technological parks, free trade zones, among others.

Internal and external rationale

Domestically, by promoting greater integration of China’s interior provinces with neighboring economies, the Initiative would contribute to reducing the economic development gap with coastal provinces (Cai, 2017). At the same time, it would also boost internal trade by reducing the above-average transportation costs within the country (Amighini, 2017).

Internationally, the access to new markets would be highly beneficial to China, not only due to the opportunity to increase trade, but also because it would help the country deal with productive overcapacity in transportation, infrastructure, steel, cement, among others (Amighini, 2017). What is more, such a vast program of economic integration could place China in a position of regional leadership. It is said that “its aim is to create a regional production chain, within which China would be a center of advanced manufacturing and innovation, and the standard setter”. (Cai, 2017, p. 5). From another perspective, the Initiative would be China's grand strategy to strengthen ties with neighboring countries and develop leadership capabilities at a global level (Niu, 2017).

A global initiative

The Belt and Road Initiative has progressively become a global initiative. Since it was introduced in 2013, the number of countries that have signed cooperation agreements with Beijing in this framework has grown enormously, reaching 144 as of October 20, 2020 (Office of the Leading Group for the Belt and Road Initiative, 2020). Interestingly, between 2018 and 2019, the Initiative jumped from 80 agreements to the current number.

Although originally the vast majority of countries in the Belt and Road Initiative were from Asia and Europe, the recent great expansion has been driven by the establishment of agreements with African countries in the framework of the Summit of the Forum on China-Africa Cooperation held in Beijing in September 2018. Before this summit, only 9 African countries were part of the Initiative, currently there are 44, which surpasses the 39 Asian countries. However, if Asia and Oceania are combined, they reach 50 agreements signed, therefore surpassing Africa (see Table 5).

As for Latin American and the Caribbean countries (LAC), Panama was the first to sign a cooperation agreement on the Initiative in November 2017. In January 2018, the Second Ministerial Meeting of the China-Community of Latin American and Caribbean

States (Comunidad de Estados Latinoamericanos y Caribeños – CELAC) Forum took place in Chile, where a special declaration was issued on the Initiative (CELAC-China Forum, 2018). Thereafter, throughout 2018, 15 LAC countries signed memorandums of understanding with China on the Belt and Road Initiative. As of October 20, 2020, 19 LAC countries have signed agreements on the Initiative (see Map 3).

On April 25, 2019, Peru and China signed the "Memorandum of Understanding on Cooperation in the Framework of the Initiative of the Silk Road Economic Belt and the 21st Century Maritime Silk Road" during the Second Belt and Road Forum for International Cooperation (Beijing, April 25-27, 2019). On this occasion, Peru was represented by its Minister of Foreign Trade and Tourism, Edgar Vásquez (MINCETUR, 2019a and 2019b). Therefore, Peru should deepen the analysis on this issue in order to define a strategy for its implementation.

Pillars of the economic corridors

As already mentioned, connectivity is considered a new platform for international cooperation and the routes proposed—on land and sea—make up economic corridors under construction to improve the connection between China and the rest of Asia and Europe, mainly. It is reasonable to assume that the concept of economic corridors would also be the basis of the connection to be established with regions newly incorporated into the Belt and Road Initiative. Hence, economic corridors are the key concept to understand the Initiative, which concerns not only infrastructure (transportation, energy and communications), but also production, including special economic zones and other instruments to facilitate the integration into global value chains.

It is often thought that the Belt and Road Initiative is only about in infrastructure. Nonetheless, in fact, it is a comprehensive economic integration program composed of five pillars: (i) policy coordination, which consists of creating coordination mechanisms on policies and strategies for economic development; (ii) facilitate connectivity through the construction of infrastructure; (iii) unimpeded trade, meaning trade facilitation and the establishment of free trade zones; (iv) financial integration, including promoting greater use of the Renminbi and encouraging greater participation and presence of banks and funds created to finance projects[7]; and (v) promote people-to-people bonds, through cultural and academic exchanges, media cooperation, tourism, among others (NDRC, MFA, & MOFCOM, 2015).

Therefore, the design of an efficient national strategy to harness the opportunities offered by the Belt and Road must start from a correct understanding of what the Initiative really is.

Towards a transpacific economic corridor: the potential role of Peru

The Peruvian engagement with the Belt and Road Initiative does not have to be related to the country's entire infrastructure gap. It should be kept in mind that this Initiative is about connectivity with China. Therefore, efforts for its implementation should focus on projects that would contribute to transpacific relations, including logistics and productive projects. In which case, the extension of the Belt and Road Initiative to Latin America means, in fact, the extension of the 21st Century Maritime Silk Road to the Pacific. Against this backdrop, it is necessary to identify the potential role that Peru can play in transpacific connectivity.

[7] Including the AIIB, Silk Road Fund, Chinese policy banks (Eximbank and China Development Bank), as well as Chinese commercial banks.

Peru is located in the center of the South American Pacific coast, which puts the country in a position to become a hub for trade between the two sides of the Pacific basin, in particular, between China and South America (see Map 4). Notwithstanding, it should be noted that other countries in the region share the same ambition. Ultimately, competitiveness will determine which country can play this role of hub on the South American side of the Pacific.

The analysis and design of this possible transpacific economic corridor in the framework of the Belt and Road should contemplate, among other aspects, logistic costs, transit time, and ships frequency. To determine the best alternative, traditional and proposed maritime routes should be comparatively analyzed. Peru needs to update its strategy on this matter. The country should also continue to promote air connectivity.

In addition, digital connectivity emerges as another area with great potential. The Belt and Road Initiative contemplates the construction of cross-border and transcontinental submarine optical cable projects that would form the “Information Silk Road”. Latin America has no direct connection with Asia for data transmission (see Map 5). Is a direct submarine cable between South America and China feasible? Where could the digital hub be located on the South American side of the Pacific coast?

A “transoceanic fiber optic cable” is listed among the 35 economic corridors and projects presented in a annex of the Communiqué of the Leaders' Roundtable of the 2nd Belt and Road Forum for International Cooperation (see Table 4), but it is not clear if that project refers to the Asia-Latin America connection. In any case, there is evidence of Chile's interest in exploring whether such a connection could be established with China (China Academy of Information and Communications Technology, 2018, p. 4; Bórquez, 2019). However, at the same time, the Chileans also contemplated the possibility of establishing this link with Asia through Oceania, in a project that included Japan.

A call for bids invited companies to submit proposals for a feasibility study, which CAF-Development Bank of Latin America committed to support with US$ 3 million (Subsecretaría de Telecomunicación del Ministerio de Transportes y Telecomunicaciones de Chile - SUBTEL-MTT, 2019a; CAF, 2019). It received eight proposals, including one from the Chinese enterprise Huaxing Consulting Co. Ltd. (SUBTEL-MTT, 2019c). Ultimately, the winner was a consortium formed by Telecommunications Management Group Inc. and WFN Strategies LLC (SUBTEL-MTT, 2019b).

According to the Chilean Government, the feasibility study found that the most profitable route would be to connect the country to New Zealand and Australia (i.e. continental Chile-Auckland-Sydney). From Oceania, the submarine cable could be linked to the existing networks with Asia (SUBTEL-MTT, 2020). In consequence, the possibilities of Peru also being considered for such a connection are low, unless the country asserts its interest and also carries out studies on the matter.

Basis and potential

In sum, the extension of the Belt and Road Initiative to Latin America calls for working on establishing one (or several) transpacific economic corridors. Peru can be the anchor of this corridor, not only because of its favorable geographical location, but also because of the substantial bilateral relations the country has with China.

The two countries have a Comprehensive Strategic Association, a free trade agreement (FTA) and a memorandum of understanding on the Belt and Road Initiative. Moreover, Peru is a prospective member of the AIIB (AIIB, 2017). In terms of investments, the

Peruvian economy is the second destination of Chinese FDI in Latin America, after Brazil (Dussel, 2020), especially because of the mining sector, but not exclusively, as investments in infrastructure projects have been growing (Tao, 2019). According to Liang Yu, Ambassador of the People's Republic of China to Peru, in 2019, the total stock of Chinese FDI in Peru reached US$ 30 billion (Toscano, 2019).

In regards to trade, Peru is China's third most important trading partner in South America, after Brazil and Chile (Table 6), and it holds the largest community of Chinese diaspora in Latin America (Berríos, 2003). Therefore, Peru-China relations already present significant prior progress in the five pillars of the Belt and Road Initiative. To move forward with this new framework, it is necessary to add the issue of connectivity into the agenda.

The joint strategic planning for Peru-China relations should regularly look into how to implement the Peruvian participation in the Belt and Road Initiative and, by so doing, promote its expansion to South America. The challenge facing the Peruvian economy is how to sustain growth by increasing competitiveness and productivity. Infrastructure plays an important role to that end. The Peru-China agenda could be enriched with the inclusion of these matters, but it should be framed within a clear strategy to be designed based on the feasibility and benefits that a transpacific corridor could bring.

Challenges ahead

The Belt and Road Initiative is best understood in the context of the Chinese economic restructuring. This process entails moving industries to other countries. Thus, it is based on investments in infrastructure for connectivity and, at the same time, production delocalization. In this sense, the Initiative promotes the globalization of value chains, production networks in which Peru aspires to take part. The challenge is how to introduce these concepts in the transpacific relations. By doing so, Peru could perhaps have the opportunity to renew the traditional pattern of its economic relations with China, currently concentrated in raw materials exports and investments in extractive industries.

Finally, for Peru and Latin American countries in general, it is important to identify the lessons to be learned from the implementation of the Belt and Road Initiative in other regions. Specifically, examine the construction of economic corridors between China and countries in its vicinity. China's connection with Southeast Asian countries would be a very interesting case study. It is important to note that there are key differences in regards to the level debt held by nations involved in the Initiative. Furthermore, where possible, greenfield investments in infrastructure should not be agreed directly between governments but rather follow market principles. In other words, companies interested in a certain project have to compete in call for bids open to firms from the whole world.

In sum, there are three major tasks ahead. First, design the transpacific economic corridor in the framework of the Belt and Road Initiative and identify the role for Peru in that context. Second, assess the feasibility of this vision. Third, identify the instruments and measures to achieve it. This effort requires a long-term perspective and the collaboration between government, private sector and academia would be very important.

1.5. Tension between the United States and China for world leadership

Trade war

The United States holds a deficit in foreign trade with the world, as the value of its imports exceeds that of its exports. In 2018, said trade deficit reached US$ 946.4 billion. Trade with China accounted for US$ 443.1 billion or 46.8% of this deficit (see Figure 11). This

imbalance with China has been on a steady rising trend, given that it amounted to US$ 83.1 billion or 20.2% of the total US trade deficit in 2001.

As noted previously, China became the “world's factory”, which resulted in a sharp increase of its manufacturing exports (McBride & Chatzky, 2019). North American companies contributed to this process by transferring their labor-intensive and low value-added industries to China, while the United States continued to develop high-technology industries (Xu, 2012).

This shift contributed to China’s integration into manufacturing global value chains, playing the role of exporting final goods to European countries and to the United States, and intermediate goods (medium-technology content) to nearby Asia-Pacific countries, which have been progressively taking China’s place in global value chains (World Bank et al., 2017).

Due to the importance of trade in intermediate goods (inputs imported to make final goods), it has been pointed out that the US trade deficit with China would reduce significantly “if bilateral trade imbalances were measured according to the value of trade that occurred domestically in each country” (Congressional Research Service, 2018: p. 12). This happens because a significant part of Chinese exports is composed of high value-added inputs imported from the United States.

The United States has implemented policies aimed at reducing the high and “unsustainable” level of trade deficit with China (Lawrence, 2018), limiting the supposed interference and manipulation of the Chinese Government on the exchange rate (United States Department of the Treasury, 2019), and combating subsidies and other benefits offered to Chinese state owned companies—as they distort the market and favor their exports (Bown, 2019). The increase in tariffs for Chinese imports and the imposition of sanctions on companies from that country led to the wave of tariff retaliations between 2018 and 2019.

According to the Office of the State Council - the People's Republic of China (2018), the trade policy implemented by the United States not only had a negative effect on the Chinese side, but also on the North American economy. The increase in tariffs affects manufacturing sectors that depend heavily on Chinese inputs, which in turn negatively impacts employment in the US and increases prices of final goods exported from China to meet American consumers’ demand. The ultimate goal of raising tariffs—which disrupts global value chains—would be to repatriate American companies and have them develop their production activities in the United States, such as in the automobile, electronics and aviation sectors (2018, p. 65).

After 18 months of conflict in the form of tariff raises and retaliations (between June 2018 and November 2019) and following truce attempts and various meetings, in January 2020, China and the United States signed the so-called “first phase” of their trade agreement, thus easing tensions between the two. The focus was on lowering tariffs and a commitment from China to buying US$ 200 worth of North American products to lower the bilateral trade deficit.

In addition, it included chapters on intellectual property (focused on protecting trade secrets, confidential business information, pharmaceutical products patents, fighting piracy, among other issues) and on technology transfer (including provisions to ensure that technology or know-how transfer is not used as a condition to access the market, eliminate licensing, increased transparency between companies and incentives for greater scientific and technological cooperation). These chapters are considered as

structural issues to achieve a more “balanced” commercial relations between the two countries (USTR, 2019).

On the Chinese side, according to Hofman (2020), despite the fact that the agreement is mainly based on the adoption of commitments by China regarding structural reforms, the purpose of signing it is to accelerate internal reforms on intellectual property, technology transfer and financial sector in order to improve the business environment and attract more investments in cutting-edge technologies. It would offer more time for the reforms to help reduce the Chinese dependence on the United States in high-technology areas, which would strengthen China’s capacity to compete with the US in these sectors in the future.

Therefore, the analysis of the US-China trade war should not be limited to tariffs or other bilateral trade issues, it should also explore underlying causes, especially the race for global technological leadership in the long-term (Schneider-Petsinger, 2019).

Competition for technological leadership

According to Yu (2019), China's aspiration to be a world power—as seen in its various national plans and its international projection—have led the country to a technological race with the United States. At stake, it would be the capacity to influence the global technological standards and achieve global economic supremacy. In particular, this competition would take place in two fronts: the production of high-technology goods and 5G technology.

As already mentioned, China's vision for structural productive change (under initiatives such as the Made in China 2025) consists in transforming the Chinese economy into an innovation power-house and a producer of high value-added high-technology goods. The United States specializes precisely in the production of goods in the sectors targeted by the Chinese plan. This would have caused the Trump Administration to consider that China's new strategies represent an “economic aggression” (White House Office of Trade and Manufacturing Policy, 2018).

In this spirit, an investigation under Section 301 of the Trade Act of 1974,[8] Office of the United States Trade Representative (USTR), argued that China uses administrative requirements and other mechanisms to force the transfer of technologies and intellectual property from North American to Chinese companies. Other mechanisms include regulations that limit US companies’ ability to negotiate with their Chinese counterparts and undermine the control of their technology in China. The Chinese Government is also said to offer financing and subsidies for their enterprises to acquire American companies and/or to engage in large-scale technology transfers in industries important to China. Finally, Chinese companies would get government support to access trade secrets and confidential business information, thereupon offering an unfair competitive advantage (USTR, 2018, pp. 5-6).

These would be the root causes of the trade war: the Chinese access to advanced technologies not produced in the country, which in turn contributes to fomenting new skills associated with technological innovation that helps reduce the existing gaps with

[8] Section 301 of the Trade Act 1974 can be activated if it is determined that a foreign country applies discriminatory measures, policies or practices against trade with United States. See https://legcounsel.house.gov/Comps/93-618.pdf

respect to international standards (Jue, 2019). The number of patents in high-technology sectors granted in China and the United States is indicative of this competition[9].

Since 2010, the number of patents granted in both countries have been on the rise, but at a faster pace in China, which helps reduce the gap between the two. In China, the number of patents in high-technology sectors went from 52,221 to 148,281 between 2010 and 2018, while it increased from 114,243 to 156,009 in the same period in the United States. If the trend continues, China would soon overtake the United States (see Figure 12).

The sector of semiconductors (inputs used in a wide range of electronic devices) is illustrative of this competition in high-technology products. According to Wu, Hoenig and Dormido (2019), the United States dominates the production and granting of patents in this sector and, moreover, it is the home country of Intel, the leading producer of semiconductors in the world.

5G technology is another battlefront for the US-China competition. This fifth generation of broadband mobile network will enable the development of a wide range of applications by providing faster and higher capacity Internet connection. Various sectors will be able to harness its benefits, including health care, education, energy, transportation, e-commerce, and logistics, among other activities (Cellular Telecommunications Industry Association-CTIA, 2020). Given the relevance of this new technology, both countries support their national companies in the competition to become 5G service providers in markets around the world. This is of great importance, as "market access" is a pathway to set technological standards worldwide (Yu, 2019).

According to Deloitte (2018), although the United States has made significant progress in 5G technology, it would not be comparable to what China has achieved in recent years thanks to its investments in infrastructure to offer 5G connection to the Chinese population. However, when it comes to Internet access, China still lags behind the United States, although the gap has been narrowing significantly over the years. In 2000, only 1.8% of the Chinese population had access to the Internet, while in the United States it was over 40%. In 2017, the rate of Internet access reached 54% in China, compared to almost 90% for the United States (see Figure 13). As indicated by GSMA Intelligence (2019), the adoption of new connectivity technologies such as 5G will considerably boost Internet access for the Chinese population, as the 4G network will be progressively replaced for this new technology in the coming years (see Figure 14).

The United States decided to include the Chinese firms ZTE and Huawei in the "entity list" which identifies foreign parties with which American companies are forbidden from doing business without an special permission from the American Government[10]. In the case of ZTE, the sanction was lifted in July 2018, but Huawei remains in the list[11]. To justify the decision, it has been argued that Huawei carries out activities that threaten the national security and foreign policy interests of the United States (Federal Register, 2019). It should be noted that Huawei is currently the leading company in 5G technology, responsible for 29% of the global mobile infrastructure market. Following the Chinese, Ericsson (Sweden) and Nokia (Finland) hold 25% and 21% of the market respectively,

[9] WIPO (2020) considers the following as high-technology sectors: electrical machinery, apparatus, energy; audio-visual technology; telecommunications; digital communication; basic communication processes; computer technology; IT methods for management; semiconductors; and optics.

[10] April 16, 2018, in the case of ZTE, and May 16, 2019 for Huawei (Wong & Chipman, 2020). Consulted on March 21, 2020.

[11] Consulted on May 18, 2020, source Bureau of Industry and Security (2020).

which means that US companies are not among the top three world leaders in 5G technology (Wu, Hoenig, & Dormido, 2019).

In short, the competition to be the world's leading technological power is ongoing. China's long-term challenge is to reduce its dependence on foreign technologies by fostering homegrown world leading companies in cutting-edge technologies (Yu, 2019).

Race for global leadership and erosion of multilateralism

This segment presents a synthesis of the main points raised by Ambassador Allan Wagner Tizón in his commentary on this research at the conference "Bicentennial Project of Peru: Contributions for its Development" organized by CIUP (Wagner, 2020). Centered on the points summarized below, his thoughts offer insights into the current state of affairs on the international stage.

- The tension between China and the United States is a struggle for world leadership that goes beyond the economic arena.
- This conflict was already underway when the coronavirus pandemic emerged and further exacerbated the tension.
- The consequences for the world order are worrisome due to the erosion of multilateralism.
- In the current international setting, it is necessary to remain committed to the 2030 Agenda for Sustainable Development, defend multilateralism and harness the opportunities offered by the Fourth Industrial Revolution.
- In this context, China can be a valuable partner for Peru.

The following paragraphs present the aforementioned commentary with some editing:

"President Donald Trump changed the international agenda when he declared *America First*, which in practice meant *America Alone,* despite having said otherwise. His administration set forth a very accelerated process of erosion of multilateralism by abandoning the TPP, suspending transatlantic negotiations with the European Union and beginning to erode APEC. These quite negative developments combined with the declaration adopted by the CCP which, as already mentioned, proposed to make China a world power by 2049, year that marks the centenary of the foundation of the People's Republic of China. In this context, a commercial conflict between the United States and China has erupted, which is not about soybeans or wheat, but a competition for technological leadership. In fact, what is at stake is not only economic leadership, but who will be the leading world power, which goes beyond the economic arena".

This conflict was already underway when the coronavirus pandemic emerged and further exacerbated the tension between the two countries. The United States accuses China of having created the virus in a laboratory in Wuhan and of having delayed the communication of what was happening to the World Health Organization (WHO). According to the United States, that meant the rest of the world could not take action in time. The position of the US Government is interpreted in various ways. For some experts, President Trump is trying to hide his own ineptitude in the handling of the pandemic in his country. In any case, that will be investigated in due course. The fact of the matter is that this situation is leading to a possible new Cold War, this time between China and the United States".

"International relations analysts have voiced their concerns about it and, indeed, this is a worrisome issue. Some opinions can be mentioned to illustrate it. Internationalist Richard Haass (2020) thinks that the post-pandemic international setting will be more similar to the post-World War I, rather than the post-World War II. That is to say, a

scenario in which international cooperation did not work and was the prelude to World War II. Such a prospect is quite disturbing".

"At the same time, the historian and philosopher Yuval Noah Harari (2020) states that we are faced with two options. On the one hand, totalitarian surveillance, referring to the way in which China and Asian countries in general have managed their population in the present crisis. On the other hand, citizen empowerment, in which case, it is proposed that technology can also be used by citizens to control the government and not only the other way around. Another issue in debate, according to Harari, concerns nationalist isolation versus global solidarity. This is very important because, in effect, there will be a tendency to isolationism, meaning countries trying to deal with global problems by themselves. That can cause further deterioration of the multilateral system, which is highly detrimental to everyone's best interest".

"For his part, Henry Kissinger (2020) points out that the pandemic will alter the world order forever. He also notes that it is absolutely essential to address the needs of the moment and have a vision and a global cooperation program. Kissinger concludes by pointing out a categorical and important aspect: 'the challenge for leaders is to manage the crisis while building the future; failure could set the world on fire. These are the challenges to face in terms of international relations and the role of China and the United States is very important in this context, since the position of world leader is being disputed'".

"Furthermore, it is important to examine plans set on the international stage. In 2015, the United Nations General Assembly approved the 2030 Agenda for Sustainable Development featuring 19 goals. The commitments assumed by the international community include, for example, the pledge to end poverty in all its forms; eradicate hunger, achieve food security and improve nutrition; ensure healthy lives and promote the well-being for all at all ages; ensure availability of water and its sustainable management, as well as sanitation for all; take urgent action to combat climate change; among others. These goals, which were considered important in 2015 (when the 2030 Agenda was approved) are absolutely indispensable nowadays, as this pandemic has shown how we still lag behind in these social issues and how countries have been unable to me meet people's basic needs".

"Faced with these scenarios, what can Peru do? First of all, support multilateralism, as it always has done. Peru is a founding member of the United Nations and, currently, it is important to strengthen this forum. It is curious, to say the least, that the Security Council has not held any meetings since the pandemic broke out, to reconcile an issue that affects international peace and security, based on health. Another arena is the WTO, which is in a deadlock because of the United States, having serious consequences for international trade. In addition, it is necessary to strengthen APEC and transform it into what it should be, that is, a great free trade zone".

"Moreover, we should strengthen regional integration by fomenting production chains at the regional level, which in turn can be integrated with new global production chains that will emerge from the New Economy that is being strongly promoted by China. To do so, it will be necessary to promote science and technology. Peru makes limited investments in this area, but it is essential to prepare for the Fourth Industrial Revolution that is already underway, in addition to artificial intelligence".

"These are the challenges to be faced globally and how to respond to them. This is a sensitive matter and the prospects are alarming. We must work on it very seriously. In this context, China can undoubtedly be a valuable partner for Peru" (Wagner, 2020).

Section 2. Challenges for the Peruvian insertion in the Pacific basin

The Asia-Pacific region is considered one of the most important in terms of economic experiences and dynamism, contributing significantly to world economic growth. Various experts, such as Wang (2019), consider the 21st century as the “Pacific Century”, as countries like China are expected to reach the levels of economic development necessary to become advanced economies.

This section focuses the analysis on a group that has been referred to here as Asia-16, which includes the 16 economies from Asia and Oceania that are members of the Asia-Pacific Economic Cooperation (APEC). Namely: Australia; Brunei Darussalam; Chinese Taipei; Hong Kong, China; Indonesia; Japan; Malaysia; New Zealand; Papua New Guinea; People's Republic of China; Philippines; Republic of Korea; Russia; Singapore; Thailand; and Vietnam (see Map 6). This section employs the names of the economies as they appear in the APEC forum. Hence, hereinafter, the full name of the People's Republic of China is used in the case of comparisons with Asia-16 economies.

This analytical approach is important because it allows to compare Peru with the economies of the “other side of the Pacific” that are Peru's main economic partners in this basin and are benchmarks for competitiveness and productivity (see subsection 2.3). This group will also be referred to interchangeably as Asia-Pacific.

2.1. The Asian economies of the Pacific basin: relative importance and dynamism

Relative importance in the world economy

First and foremost, the relative importance of Asia-16 in the world economy can be measured by observing its share of the global GDP (at current prices) vis-à-vis other regions. Figure 15 shows that, after the significant growth sustained since 1980, the share of Asia-16 in the world GDP reached the first place in 2010. It represented 28.1% of the total, surpassing North America (the United States and Canada), and the Euro Zone.

The trend has continued to gain force over the past years. In 2019, Asia-16 already accounted for 32.5% of the world GDP. The People's Republic of China alone was responsible for half of the total GDP in Asia-16, so the importance achieved by this group in the world economy has much to do with the trajectory of the Chinese economy. As for LAC, in the past 40 years, its share of the world GDP has decreased (7.6% in 1980, compared to 6% in 2019).

Figure 16 illustrates the economic growth rates of different regions with respect to the world average. It can be observed that Asia-Pacific is the most dynamic region, surpassing the growth rates recorded for the Euro Zone, North America and LAC. In effect, Asia-16 grows above the world average, which supports the notion that the region is a driver of dynamism that can reach the world economy at large.

Importance in world exports

International trade is a driver that has contributed to the greater sustained economic growth in the Asia-Pacific region. According to Brooks (2018), within the framework of an export-oriented growth model, this region became the center of low-cost production and logistics for international trade in the past decades.

Figure 17 shows this development using data on the share of Asia-Pacific exports in the world total. In 2001, this region accounted for 27.6% of all exports, ranking second in the world. Back then, the Euro Zone was the leading exporting region with 31% of the total. By 2005, this order had already been reversed and the North American share of world exports had declined.

Over the years, Asia-16 has been consolidating the position of leader in world exports, reaching 35.8% of the total in 2018. The People's Republic of China alone accounted for 12.9% of all exports worldwide, which corresponds to 36.2% of the total exported by Asia-16 in the same year (see Table 7). In contrast, LAC's share of world exports remained stagnant at around 5.6% over the period analyzed (2001-2018). Complementing this overview, Table 7 also shows that Asia-16 exports to the world increased four-fold between 2001 and 2018, reaching US$ 6,981.5 million in the latter year. The economies with the highest dynamism in the period were Vietnam (value exported increased by 16.2 times) and the People's Republic of China (value exported increased by 9.4 times).

A significant part of the Asia-16 trade takes place within the region. In fact, in recent years, the proportion of intra-regional trade represented more than 50% of its total exports (see Table 8). Intra-regional trade is correlated to the productive integration in the context of global (and/or regional) value chains. Furthermore, the high volume of intra-regional trade contributes to strengthening the region in face of uncertainties of world trade and global economic growth (ADB, 2017).

According to the WTO, ESCAP & OECD (2011), Asia-Pacific economies have been taking increasingly more measures to support intra-regional trade. Their purpose is to strengthen the regional productive capacity by improving human capital, increasing liquidity of companies and aligning regional standards.

The role of manufacturing and services exports

Its manufacturing exports put in evidence the capacity of the Asia-Pacific region to produce and export goods with high value-added. In 2001, Asia-16 accounted for 30.9% of total manufacturing exports worldwide, being surpassed by the Euro Zone. However, in 2018, the situation had more than reversed. Asia-16 reached 41.6% of world manufacturing exports, compared to 29.7% of the Euro Zone and 10.6% of North America. In the case of LAC, not only is its share marginal for this type of exports, but it is also decreasing. In 2018, it represented 1.3% of world manufacturing exports, which is slightly less than the percentage observed in 2001 (see Figure 18).

The case is different for service exports, as the Asia-Pacific region does not fare well in the comparison. In 2005, Asia-16 accounted for 18.1% of service exports globally. Meanwhile, the Euro Zone led the sector with almost double that, representing 34.2% of the world total. More than ten years later, the Euro Zone is still responsible for a third of the world service exports, whereas Asia-16 reached more than 20% of that total. For their part, North America fluctuated around 16% and LAC held a marginal share of around 3% throughout the period analyzed (see Figure 19).

According to the Pacific Economic Cooperation Council – PECC (2011), the development of the services sector is crucial for economic growth and increased competitiveness. Moreover, it is important to note that the services sector is the main source of job creation in the Asia-Pacific region and it supports global/regional value chains in an interconnected world economy. According to ESCAP (2020), trade in services in Asia-Pacific is essentially dominated by a few economies, such as the

People's Republic of China, Japan, Singapore, Republic of Korea and Hong Kong, China.

Trends in direct investment

Finally, another important indicator of the Asia-16 dynamism is the rise of investments. Figure 20 presents the evolution of stocks of inward and outward foreign direct investments (IFDI and OFDI respectively) in this region between 2010 and 2018. It shows that the stock of OFDI surpassed that of IFDI in 2014, a trend which has been gaining force thereafter. In 2018, the OFDI stock reached US$ 8,450.3 billion, which represented almost twice as much as the figures recorded for this concept in 2010. The People's Republic of China accounted for 23% of the stock of OFDI from Asia-16 in the world.

Additionally, according to UNCTAD (2019), the flows of intra-regional investments have increased. To illustrate, there has been a rise in investments in mainland China coming from Hong Kong, China[12], the Republic of Korea and Singapore. At the same time, Southeast Asia is also attracting more investments, mainly Singapore, Indonesia, Vietnam and Thailand, such inflows have been invested in the financial, retail and digital economy sectors (infrastructure and services, e.g. information centers and electronic commerce businesses).

2.2. Panorama of the Peruvian trade with Asia-Pacific: concentration vs diversification

Evolution of exports

Peruvian exports to Asia-16 have shown a rising trend over the past twenty years. In 2000, Peru exported US$ 1,263 million to that region. By 2019, such exports had increased 15-fold, reaching US$ 19,199 million (see Figure 21). As a result, the Asia-Pacific region has consolidated itself as the main destination for Peruvian exports. Its share has reached 41.6% of the total in 2019, compared to 18.4% at the beginning of the millennium (see Table 9).

From the total exported to Asia-16, three major trading partners emerge as the main destinations. Namely, the People's Republic of China, Republic of Korea and Japan, which together accounted for 92.7% of the total exported to the region in 2019. This concentration has become more accentuated over time, seeing as the three markets aforementioned accounted for 71.7% of the Peruvian exports to the region in 2000. This trend is a result of the evolution of the People's Republic of China as the main market for Peru in Asia-Pacific and in the world. For their part, Japan decreased its share and the Republic of Korea remained more or less constant in the same period, despite the growth in the value of Peruvian exports to these two economies (see Table 10).

The exports to the People's Republic of China experienced sustained growth over the past twenty years. It went from US$ 443 million (35.1% of the total exports to Asia-Pacific) in 2000 to US$ 13,546 million (70.6% of that regional total) in 2019. In other words, the Chinese economy doubled their share as a destination for Peruvian exports in the Asia-Pacific region in this period. The annual average growth rate of Peruvian exports to the Chinese market was 20%, much greater than the growth of its exports to other economies in Asia-Pacific (except for Vietnam). Indeed, it was greater than the

[12] Once again, it should be noted that part of these flows is composed of the so-called “round-trip investments” originated in mainland China (refer back to subsection 1.2).

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annual average growth rate of Peruvian exports to the world, which was 10.5% in that period (see Tables 9 and 10).

As for other major destinations for Peruvian products, in the case of the EU and LAC, each one grew annually by around 10% on average. Meanwhile, the exports to the United States increased by an annual average rate of 5.9% in the same period (see Table 9).

Exports composition

Another important aspect of the Peruvian trade with Asia-Pacific is the concentration of exports in traditional sectors, a trend which has gained force over time. In 2000, such sectors accounted for 88.8% of the Peruvian exports to this region, but that share rose to 91% in 2019. These exports were mostly composed of mineral commodities, which represented 79.2% of the trade flows to Asia-Pacific in 2019, compared to 34.8% in 2000. The foregoing figures largely surpasses the traditional fishing sector, which is the second most important (see Table 11).

Certainly, this increased share of mining exports was a result of the rise in the Chinese demand. China received 77% of the Peruvian mineral exports to Asia-Pacific, which represented 44% of such exports to the world in 2019. In the specific case of copper, its share is even greater, that economy is the main destination for Peruvian copper, responding for 67% of this export to the world or 80% of such shipments to the Asia-Pacific region in 2019. This commodity is exported in the form of concentrates, cathodes and sections of cathodes, and anodes (see Table 12).

As for non-traditional exports to the region under analysis, notwithstanding the high growth experienced (12-fold in the period 2000-2019), their share in the total is still very low and declining. In 2019, non-traditional sectors responded for 9% of the Peruvian exports to Asia-Pacific, compared to 11.2% at the beginning of the century. Twenty years ago, the fishing, textile, metallurgical, and steelmaking sectors were the most important Peruvian non-traditional exports to these markets. By 2019, the fishing, livestock and agro-industrial sectors dominated widely in this category (see Table 11).

It is very important to note that the concentration on traditional sectors is greater in the case of Peruvian exports to the People's Republic of China. In effect, it accounted for 95.5% of the total in 2019, whereas non-traditional exports represented the remaining 4.5%. What is more, the share of the latter has declined in relation to the beginning of the period under analysis (see Table 13).

However, the efforts to expand non-traditional exports are noteworthy, as it has grown from US$ 25 million in 2000 to US$ 611 million in 2019. This expansion was driven by the fishing, agriculture and agro-industrial sectors. Undoubtedly, the transformation of the People's Republic of China after four decades of reforms and internationalization (which resulted in poverty reduction, rise of the middle class, urban population growth, among other trends, as analyzed in section 1) presents an opportunity for exports of fresh and processed food products from the agricultural and fishing sectors in Peru.

Trade balance

The trade balance has fluctuated in period analyzed. After the economic crisis of 2008, it is possible to identify three phases of the Peruvian trade balance with the Asia-Pacific region. The first of them (2009-2011) was marked by a surplus for Peru. In the second one (2012-2016), the Peruvian economy experienced a trade deficit. During the third

phase (2017-2019), the exports from Peru regained momentum and tilted the balance in its favor once again (see Figure 22).

This development has been influenced by the international copper prices (BCRP, 2020), the main Peruvian export. Indeed, in 2009, copper presented an average price of US$ 234.3 cents per pound, which went up to US$ 397.5 cents in 2011. In the second phase, copper prices fell sharply from US$ 360.9 cents per pound in 2012 to US$ 220.8 in 2016. Between 2017 and 2019, the increase of Peruvian mineral exports coincided with a significant rise in international copper prices, which reached around US$ 300 cents per pound.

Trade agreements with Asia-Pacific economies

Out of the 20 trade agreements in force between Peru and other countries, six are with economies in the Asia-Pacific region. Since it joined APEC in 1998, Peru deepened its perspective on opportunities presented by closer relations with countries from Asia and Oceania in the Pacific basin. Not only on diplomatic matters, but also in trade and investment. Since then, the country has expanded its strategy with the negotiation of FTAs aiming to improve the conditions to access these markets.

In effect, one of the first FTAs to enter into force in Peru was with an Asian economy, namely, Singapore in August 2009. The other five bilateral FTAs with countries in the region came into force between 2010 and 2020: the People's Republic of China in 2010; Republic of Korea and Thailand[13] in 2011; Japan in 2012; and Australia in 2020 (see Table 14).

The early treaties have been followed by the negotiation of more in-depth trade agreements that include relevant provisions on: intellectual property rights, competition policies, labor issues, environmental protection, public procurement, telecommunications, among others. These topics would contribute to further develop the Peruvian trade with its main partner in the Asia-Pacific region. In line with this, the upgrading of the FTA under negotiation with the People's Republic of China includes: trade in services, investment, intellectual property, electronic commerce, competition policies, customs procedures, trade facilitation and rules of origin (MINCETUR, 2019).

The CPTPP is another important trade agreement, considered to be in-depth and up-to-date, which is still awaiting approval in Congress to enter into force in Peru. This treaty entered into force on December 30, 2018 for the first six members to complete the ratification process (Australia, Canada, Japan, Mexico, New Zealand and Singapore). Subsequently, on January 14, 2019, it entered into force for Vietnam. In the case of the remaining countries (Chile, Peru, Malaysia and Brunei Darussalam), once ratified, the agreement will enter into force automatically after 60 days. Notably, this agreement makes it possible to use the accumulation of origin among the eleven-member economies, which would facilitate the insertion of Peru into global value chains in Asia-Pacific.

In line with these more in-depth and plurilateral agreements, the Pacific Alliance, a scheme of integration between four Latin American countries in the Pacific basin (Chile, Colombia, Mexico and Peru), has opened a space for “associated countries”. In this

[13] In the case of Thailand, it consists of the “Protocol between the Republic of Peru and the Kingdom of Thailand to Accelerate the Liberalization of Trade in Goods and Trade Facilitation.” Building upon this document, amendments were negotiated and resulted in additional protocols. These agreements constitute prior steps that pave the way for the negotiation of a more in-depth FTA in the future.

framework, trade agreements are under negotiation, simultaneously, between the four member-countries and Australia, Canada, New Zealand and Singapore.

Peruvian trade with the Asia-Pacific region: Pending challenges

As noted above, in the past twenty years, Peruvian exports to Asia-Pacific have increased more than to any other region or trading partner. The People's Republic of China, in particular, has been playing a central role as a destination for such exports. However, the limited share of non-traditional sectors in the exports to Asia-16 is a distinctive aspect of this commercial exchanges, which contrasts with the importance that such products gained for Peruvian exports to other destinations.

Two very different patterns can be observed in Peruvian exports. In the first one, non-traditional exports to the EU, United States and LAC, which were already relatively important, gained more weight. In 2000, the beginning of the period under analysis, non-traditional exports accounted for more than 30% of shipments to those destinations. By 2019, the shares rose to almost 50% for the EU, around 60% for Latin America, and 70% for the United States[14] (see Figure 23).

As for the second pattern, the share of non-traditional products in total exports to the People's Republic of China and Asia-Pacific remained relatively low and declined slightly in the period analyzed. The respective shares reached 6% and 11% in 2000, compared to 5% and 9% in 2019. Nevertheless, if the People's Republic of China is taken out of the equation, the numbers for the rest of Asia-16 show a different picture. The share of non-traditional sectors rises to 20% of the total exported to those economies in 2019, indicating that the challenge is basically to diversify exports to the People's Republic of China, with especial attention to higher value-added products.

Decidedly, the challenge for Peru is in the adoption of policies aimed at diversifying exports. The country is already moving in this direction, seeing as non-traditional exports from agriculture and agro-industries, as well as fishing products, have been notably gaining importance in recent years. It is necessary to make efforts in another complementary front for export diversification, namely, manufacturing. Special attention should be given to intermediate goods that can be inserted into global value chains led by Chinese firms or from other economies in the Asia-Pacific region.

To contribute to this process, the manufacturing delocalization and integration experience between Northeast and Southeast Asia should be studied. Such an analysis could offer insights on how to promote a process like this between Asian and Latin American economies. This kind of research should:

- Examine trends in trade and direct investment between the economies in Northeast and Southeast Asia.
- Analyze driving forces for manufacturing delocalization involving these economies.
- Study industrial policy instruments implemented to attract companies in process of delocalization.
- Assess the role of FTA and agreements for the promotion and protection of investments, in this process of delocalization.

[14] In the case of the United States, it should be noted that, while non-traditional exports were on the rise, the higher share was a result mostly of the fall in traditional exports. Gold exports to the United States dropped from US$ 1,856 million (in 2018) to US$ 331 million (in 2019), while oil products went from US$ 1,526 million (in 2018) to US$ 475 million (in 2019). In contrast, agricultural exports grew significantly, from US$ 1,875 (in 2018) to US$ 2,262 (in 2019), which represented a historic record, with fruits at the forefront as the main product (Adex Data Trade, 2020). Be that as it may, as shown in Figure 23, non-traditional exports to the United States have remained above 40% of the total since 2014.

- Identify the benefits obtained by both the economies that are the origin (Northeast Asia) and the hosts (Southeast Asia) of the delocalized production.
- Explore the part played by other factors, such as the availability of resources, labor cost, logistic costs, connectivity efficiency, degree of informality in the economy, innovation, among others, either to attract or discourage the manufacturing delocalization.

The objective would be to identify lessons learned from this intra-Asian process, which could be useful for the design of public policies and business strategies in Peru with respect to Asia-Pacific. Additionally, a study like this should identify advantages and disadvantages Peru would have to participate in a process of manufacturing delocalization similar to that involving Northeast and Southeast Asia. Possibly, such process could focus firstly in Peru-China relations.

Furthermore, it would be important to understand if the driving forces of production delocalization in East Asia could play a role in the case of Peru. For instance: how significant would the role of connectivity be? what aspects of industrial policy in Asian economies could be applied? among other questions. This analysis should be placed in the framework of a long-term projection of the Peruvian relations with China and Asia-Pacific.

2.3. Comparative analysis between Peru and Asia-Pacific economies: the challenge of competitiveness and productivity

While free trade is essential for economic growth, high priority should be given to factors affecting competitiveness and productivity. Against this backdrop, the present subsection focuses on examining the conditions in Peru vis-à-vis those in Asia-Pacific economies with regards to a group of indicators on both concepts aforementioned.

Among their recommendations for the future agenda of APEC, the reports from PECC (2019) and AVG (2019) proposed that high priority should be given to structural reforms in member economies in order to increase productivity through open, well-functioning, transparent and competitive markets. It considers that a competitive and open economy contributes to sustaining growth and increasing productivity and income. Likewise, digital and technological transformation would bear an enormous potential to support growth, promote innovation and facilitate connectivity, in addition to being an important instrument for social inclusion (AVG, 2019: 15-21).

In the case of Peru, these recommendations are of utmost importance, as suggested by the comparison of the Peruvian economy with respect to Asia-16.

Per capita income and competitiveness

The World Bank classifies economies in high, medium and low-income based on their Gross National Income (GNI) per capita, Atlas method, which is an indicator of the standard of living. Table 15 puts in evidence that Peru has the opportunity to engage with high-income economies on the other side of the Pacific, as half of the Asia-16 economies are in that income group (according to data from 2018).

Peru is located in the upper middle-income group, along with the People's Republic of China, Russia, Malaysia and Thailand, thus sharing with them the challenge of reaching the high-income stage. In this group, Peru is the economy with the lowest per capita income and it only surpasses the four Asia-16 economies at lower middle-income.

For its part, the World Economic Forum Global Competitiveness Index (GCI) assesses the set of institutions, policies and factors determining the level of productivity (Schwab, 2019). This index shows that the eight high-income Asia-16 economies also hold the best positions in the competitiveness ranking (see Table 16), except for Brunei Darussalam, whose high-income is correlated to its oil exports, which accounted for 91% of its total exports in 2019 (Department of Economic Planning and Statistics of Brunei Darussalam, 2019). Comparatively, Peru has a poor performance vis-à-vis Asia-16, seeing as it sits at the penultimate place, only ahead of Vietnam.

Pillars of competitiveness

The GCI is based on twelve pillars. Figure 24 presents a comparison between Peru and the most competitive Asia-16 economy in each pillar. As it can be observed, only in the Pillar IV "Macroeconomic Stability" does Peru have a high score, sharing the top position with Hong Kong, China; Chinese Taipei; Republic of Korea; Australia; New Zealand; and Malaysia. In the other eleven pillars, there is a considerable gap between Peru and the most competitive Asia-16 economy.

Notably, there is a great gap in the Pillar III "Information and Communication Technology (ICT) Adoption," where the score for the most competitive economy in the group (Republic of Korea) is twice as much as that of Peru. In the Pillar XII "Innovation Capability," the most competitive economy (Chinese Taipei) is even further ahead of Peru. Its score in this pillar is 2.4 times that of the Peruvian economy.

Singapore has the best competitiveness index in Asia-16 for pillars I "Institutions," II "Infrastructure" and VIII "Labor Market". The Peruvian competitiveness index reaches around 60% to 70% of the Singaporean in these areas. In other pillars, the gap to the most competitive Asia-16 economy is of the same order. The Peruvian score is around 70% that of New Zealand in the pillars VI "Skills" and XI "Business Dynamism." A similar gap is observed with Hong Kong, China in the pillars VII "Product Market" and IX "Financial System."

In order to see where Peru stands in relation to the People's Republic of China, its main partner in Asia-Pacific, Figure 24 also includes the Chinese score for each GCI pillar. The greatest differences between these two economies can be observed in the pillars III "ICT Adoption" and XII "Innovation capacity." There is also a significant gap in the pillars II "Infrastructure", IX "Financial System" and XI "Business Dynamism." Naturally, due to the different scale of their economies, the size of the market (Pillar X) offers a much more important support for competitiveness in the People's Republic of China than in Peru. Overall, in at least half of the GCI pillars, there is a significant gap between the level of competitiveness that the Chinese economy has reached and that of Peru.

In sum, this panorama shows that there are economies in Asia-Pacific that can be interesting references for Peru. They represent a source of lessons learned that could contribute to the Peruvian development process, this notion gains even more importance when considered how Peru lags behind Asia-16 economies. With that in mind, next, this paper deepens in the analysis of some selected pillars.

Connectivity, ICT, innovation and skills

In these four pillars, Peru is quite far behind Asia-16 economies. In Infrastructure, it holds the penultimate position in the ranking of competitiveness in the comparison with Asia-16 economies, surpassing only the Philippines (see Table 17). This pillar includes transportation, electricity and water. Therefore, in order to focus on the concept of connectivity, the relevant ranking is relative to transportation for the economies under

consideration. This comparison shows that Peru remains also at the penultimate place, only ahead of the Philippines. However, its overall comparative situation in the world is worse, seeing as it holds the position 96 in transportation, compared to the position 87 in infrastructure at global level.

In terms of transportation by road, the comparative performance is even worse, as it is ranked at position 111 (out of 141 economies), once again, only ahead of the Philippines in Asia-16. In transportation by air and sea, Peru does relatively better, as it is more or less in the middle of the world ranking (position 65 in transportation by air and 52 by sea – out of 141 and 108 economies, respectively). However, relative to Asia-16, it also sits at penultimate place in transportation by air and, in terms of transportation by sea, it is surpassed by 13 out of the 16 economies from Asia and Oceania under analysis (see Table 18).

The GCI Skills pillar is based on years of schooling, extent of staff training, quality of vocational training, skillset of secondary-school and university graduates, digital skills among the economically active population, ease of finding skilled employees, school life expectancy, critical thinking in teaching, pupil-to-teacher ratio in primary education. Compared with Asia-16, Peru reaches a competitiveness score that also places the country at the penultimate position, only ahead of Vietnam (see Table 19).

Nonetheless, it is in the pillars of ICT Adoption and Innovation that Peru lags behind the most. ICT adoption supports the innovation capability of people and businesses, so both topics are interconnected. At the global level, the Peruvian economy holds position 90 in terms of Innovation Capability and position 98 in ICT Adoption (out of 141 economies in both cases). However, vis-à-vis Asia-16, Peru is at the very bottom of the competitiveness ranking (see Table 19). The Asia-Pacific region is one of the most dynamic and innovative regions in the world, whereas the Peruvian current capacity seems extremely frail in those areas.

In this context, as a topic closely related to these pillars, it is worth looking into the issue of digital transformation in the framework of the Fourth Industrial Revolution (Pertuzé, 2019). Related to that, the “Vision to 2040,” prepared by AVG, highlighted that it is necessary to foster an environment that enables individuals and companies to benefit from the digital transformation. It was also noted that universal and fast broadband Internet connection is indispensable to support the digital economy development. Furthermore, while the technological and digital transformation has the potential to raise productivity, generate new business models and highly qualified jobs, it also brings disruptive effects to the traditional production processes. In view of the foregoing, it is fundamental to prepare the workforce to absorb and adapt quickly to new technologies (AVG, 2019).

ICT, innovation, education and skills complement each other and represent areas with great potential for international cooperation with the Asia-Pacific region. Peru, which lags behind Asia-16 economies in these aspects, should make efforts to take full advantage of this opportunity in the framework of its strategy to improve competitiveness and productivity. It is also necessary to rethink how education and ICT can be combined in a single strategy (Gonzales et al., 2016).

Macroeconomic stability, institutions and business dynamism

As already noted, Peru has much better performance in the pillar of Macroeconomic Stability. It even outperforms Singapore, the economy that holds the top position worldwide in the overall GCI (i.e. considering all pillars). In fact, in this pillar, Singapore is at position 38, whereas Peru ranks number 1 (see Table 20).

This pillar measures how favorable the economic background is using indicators on inflation and public debt dynamics. Meanwhile, the Institutions pillar assesses the quality of the institutional framework in the country. The solid macroeconomic stability of Peru contrasts with the score attained in Institutions. In this case, like in other pillars, Peru sits at the bottom of the ranking with regards to Asia-16 economies (see Table 20). It should be observed that this pillar measures various indicators on areas such as judicial independence, crime rates, future orientation of government, freedom of the press, burden of government regulation, among others. Peru is ranked 94 globally (out of 141 economies).

Business Dynamism represents another pillar in which there are pending tasks for the Peruvian economy. Once again, Peru holds the last position in the comparison with Asia-16 economies and, globally, it is considerably below the average, at position 96 (out of 141 economies). The pillar assesses the cost and time necessary to start a business, insolvency regulatory framework, growth of innovative companies, among others. It is worth noting that 12 of the Asia-16 economies have earned positions in the upper third of the global ranking, while Peru is in the lower third.

Logistics competitiveness and trade openness

It is important to explore another set of relevant indicators that impact the Peruvian ability to compete with other economies in international trade. The World Bank (2018) provides an index on logistics performance that is based on six components: efficiency of customs and border clearance; quality of trade and transportation infrastructure; ease of arranging competitively priced shipments; competence and quality of logistics services; ability to track and trace consignments; and frequency with which shipments reach consignees within scheduled or expected delivery times. This index reveals a scenario similar to that of the GCI. Peru is second to last in logistics performance in the ranking with Asia-16, only ahead of Papua New Guinea (see Table 21).

Peru fares better regarding trade openness, although quite behind some Asian-16 economies. Using data from 2018, this indicator presents the ratio of trade (exports and imports of goods and services) to GDP (see Figure 25). Notwithstanding the Peruvian progress in this area, its trade represents 49% of the GDP, which is comparable to the ratios of the largest Asia-16 economies, such as the People's Republic of China, Indonesia, Russia and Australia. Seeing as Peru is an economy with a relatively small market, its engagement in international trade should be greater. That being said, it is worth noting the progress that Peru has made in trade liberalization, which can be seen in the low average tariff of 1.25% recorded in 2018. In this regard, Peru does very well in the comparison with Asia-16 economies (see Figure 26).

From competitiveness to productivity: absolute value and growth rate

Labor productivity, measured as the average output per worker in constant 2011 PPP dollars, has grown in the past almost thirty years (1990-2018) in all Asia-16 economies, except for Brunei Darussalam, and in the case of Peru as well (see Table 22). As indicated in the first section of this study (see Table 1), the People's Republic of China has experienced the most substantial growth, it has sustained an annual average growth rate of 8.52% in labor productivity, which resulted in a 10-fold increase in its level of productivity in the period analyzed.

The Chinese productivity per worker went from US$ 3,055 in 1990 (the lowest in Asia-16) to US$ 32,718 in 2018 (see Table 22). Even so, the gap with Singapore (the top economy in productivity in Asia-16) is still very large, around 5 to 1 in 2018. Vietnam enjoys the second place in growth of productivity per worker, with an annual average

rate of 4.62% in the period 1990-2018. As a result, Vietnam has nearly quadrupled its productivity in the period, though the starting point was very low with respect to other Asian-16 economies (similar to the Chinese case).

It is possible to identify six different groups when observing the annual average growth rate of productivity in Asia-16 economies and Peru in the period under analysis. 1) high growth (the People's Republic of China and Vietnam); 2) annual average growth rate equal or greater than 3% (Thailand, Republic of Korea, Indonesia, among others); 3) annual growth between 2% and 3% (e.g. Malaysia, Singapore, Philippines, among others); 4) growth between 1% and 2% (including Peru and Australia); 5) growth between 0% and 1% (the case of Japan and others); and finally 6) decrease (Brunei Darussalam) (refer back to Table 1).

Against this backdrop, although the Peruvian productivity grew at an average rate of 1.91% a year, most Asia-16 economies progressed faster, which has increased the gap between Peru and these economies in terms of productivity per worker. Consequently, the productivity of Peru (in absolute terms and growth rate) is lower than most Asia-16 economies. This means that the country has the important challenge of increasing productivity and such a priority issue should also be reflected in the Peruvian agenda of economic insertion in Asia-Pacific.

2.4. China and Asia-Pacific in national plans

This last subsection analyzes the extent to which national visions and plans pay attention to China and the Asia-Pacific region. To this end, firstly, it is necessary to look at a more general level and examine how the international economic insertion of Peru is considered in the national strategic planning. Secondly, this subsection seeks to identify any references to China and Asia-Pacific in that framework.

Scope

It starts with a review of the Peruvian State policies agreed at the National Agreement Forum (Acuerdo Nacional, 2019) and then it examines the long-term vision, as well as the national policies and plans most relevant to this discussion. Regarding the scope of the analysis, it is necessary to make some clarifications:

- First, it focuses on the most recent instruments on future vision produced by CEPLAN, namely: Peru's Image Proposal to 2030 (preliminary version), presented to the National Agreement Forum in February 2017 (CEPLAN, 2017a); the guidelines to update the Strategic Plan for National Development, of May 2017 (CEPLAN, 2017b); and the Vision of Peru to 2050 approved by the National Agreement Forum in April 2019 (Acuerdo Nacional and CEPLAN, 2019).

- Second, it centers on the most recent multisectoral policies and plans considered to have a significant impact on Peru's international economic insertion. Namely: the National Policy for Competitiveness and Productivity, from December 2018 (MEF, 2018), the National Plan for Competitiveness and Productivity (MEF, 2019a), and the National Infrastructure Plan for Competitiveness (MEF, 2019b), both from July 2019.

- Third, it examines plans from two sectors that are intrinsically related to the international arena. These are the Long-Term Sectoral Strategic Plan 2012-2021 by the MRE (MRE, 2012), and the National Strategic Exports Plan (Plan Estratégico Nacional Exportador – PENX) 2025 by the Ministry of Foreign Trade and Tourism (MINCETUR, 2015) approved in 2015.

Given the nature of this study, the objective here is not to examine in detail each one of these instruments that include a number of specific topics. Instead, it aims at illustrating an important weakness in Peru's economic approach internationally: the lack of a clearly defined vision for the country's insertion in the global economy.

This vision should give rise to a multisectoral strategic plan for the international economic insertion of Peru. It should encompass various sectoral dimensions (and actions) in an integrated manner so as to realize the vision for the country's insertion in the world economy. In this framework, there should be a specific vision for Peru's economic projection towards China and Asia-Pacific, as well as measures to realize it.

State policies of the National Agreement Forum and the international stage

In general, Peru's national planning is rooted in the 35 State policies of the National Agreement Forum (29 of them approved by said forum in 2002 and 6 more between 2003 and 2017). They are divided into four axes:

I. Democracy and Rule of Law.
II. Equity and Social Justice.
III. Competitiveness of the Country.
IV. Efficient, Transparent and Decentralized Government.

Axis I "Democracy and Rule of Law" includes policy no. 6 on "Foreign Policy for Peace, Democracy, Development and Integration", which aims at promoting an "adequate insertion of the country in the world and in international markets by keeping a close link between external actions and national development priorities". Among other purposes, the objective of the State is to strengthen the country's diplomacy to serve as "an instrument to promote development objectives, commercial expansion, and attract investments and resources for international cooperation" (Acuerdo Nacional, 2019, pp. 2-3).

In the economic sphere, Axis III "Competitiveness of the Country" is the most closely related to international insertion. Policy no. 18 is about "Striving for Improved Competitiveness, Productivity and Formalization of Economic Activities", it notes that the State should increase the country's competitiveness in order to, among others objectives, "successfully integrate Peru into the global economy". To this end, "it will promote goods and services with higher value-added and increase exports, especially non-traditional ones" (Acuerdo Nacional, 2019, p.10). Therefore, policy no. 18 is intertwined with others related to international trade.

In particular, policy no. 22 on "Foreign Trade for the Expansion of Markets based on Reciprocity" (Acuerdo Nacional, 2019, pp. 12-13) postulates the need to "realize the country's competitive insertion in international markets". A series of mechanisms and instruments are listed as means to help achieve that purpose, both in terms of trade policy and economic policy in general. However, the actual vision is still to "increase and diversify markets for national goods and services with higher value-added". Along these lines, policy no. 23 on "Agrarian and Rural Development" reiterates the vision of achieving the country's competitive insertion in international markets and increase exports of products with higher value-added. (Acuerdo Nacional, 2019, pp. 12-13).

National vision and the international stage

The Image of Peru to 2030 (preliminary version) proposal was prepared by CEPLAN to serve as the basis for a dialogue among the members of the National System for Strategic Planning of Peru (Sistema Nacional de Planeamiento Estratégico – SINAPLAN)

(CEPLAN, 2017a). Presented in 2017, this proposal contains five main provisions whose targets are related to SDGs—part of the United Nations Agenda 2030 (Asamblea General de las Naciones Unidas, 2015).

The third provision of this pre-image proposes that, by 2030, "all people enjoy a prosperous and full life, with decent employment and in harmony with nature, considering reserves of resources for future well-being" (CEPLAN, 2017a, p. 4). While this provision makes no references to the international sphere, one of its targets is "to increase the value-added of products from medium and high technology industries" (2017a, p. 7), which is directly related to the State policies of the National Agreement Forum and its provision on boosting exports with higher value-added. Notably, in the 2030 Agenda, this indicator matches SDG No. 9 on "Industry, Innovation and Infrastructure" (Asamblea General de las Naciones Unidas, 2015).

The pre-image also includes a fifth provision postulating that, by 2030, "alliances [will] have been strengthened to achieve sustainable development […]" (CEPLAN, 2017a, p. 4). In this case, the targets are: a) increase non-traditional exports and b) attract more FDI (as % of GDP). Therefore, it is clear that these alliances to achieve sustainable development refer to international partnerships. Moreover, the vision for the country's insertion in the global economy is systematically based on two main elements: increasing exports of products with higher value-added and attracting investment.

For its part, the Vision of Peru to 2050, approved by the National Agreement Forum in 2019, projects that Peru will be "integrated into the world". It further notes that, by 2050, national efforts will have "successfully integrated Peru into the global economy" (Acuerdo Nacional & CEPLAN, 2019, pp. 2-3). For that purpose, "Peru would promote goods and services with higher value-added; and increase exports, especially non-traditional ones".

Although such concepts are not new in Peruvian planning, the Vision 2050 brings some important new considerations. For instance, it stresses that Peru should "diversify its production; foment industry, manufacturing and the services sector […] promote technological innovation and its development" (2019, p. 4). It is reasonable to assume that non-traditional exports are included in such considerations about national production.

Furthermore, it proposes that Peru "fosters a favorable environment for national and foreign private investment" for 2050, which is another concept that is taken up from previous planning. It also notes that Peru will "respect international treaties and agreements" and it will be "a sovereign State solidly integrated onto the world stage" (Acuerdo Nacional & CEPLAN, 2019, p. 4).

The heart of the matter is that the Peruvian integration into the global economy must be "successful" and its integration onto the world stage must be "solid." The details of the vision, intermediate objectives, goals and indicators, and action plans are yet to be formulated, all of which would be part of the National Strategic Plan to 2050. It is worth exploring whether it is feasible and desirable to design a strategic plan for international insertion alongside this national strategic plan. In that case, these two schemes should keep close links to create the conditions to adopt a comprehensive and multisectoral approach for the internationalization of the Peruvian economy.

Multisectoral plans and the international stage

The National Policy for Competitiveness and Productivity constitutes the general framework for the national plan of the same name and the National Infrastructure Plan for Competitiveness. This policy concerns "the ability of a nation to compete successfully in various markets, while efficiently using its resources and exploiting its comparative

advantages, ultimately contributing to improving the well-being of all citizens" (MEF, 2018, p. 12).

It targets 2030, aiming for Peru to be one of the three most competitive countries in Latin America. It is noted that the Peruvian export basket is highly concentrated in traditional products, which places the country in position 94 out of 127 economies (behind countries such as Colombia, Chile and Mexico) in the Ranking of Economic Complexity prepared by Harvard University. What is more, Peru's Economic Complexity Index has continuously deteriorated since 2001[15] (MEF, 2018, p.13).

Hence, economic diversification can be understood as the transition to a more sophisticated and complex productive structure. Some Asian countries are references in regards to the progress made to improve economic complexity, for example, Malaysia and Vietnam. From another perspective, Indonesia represents an exemplary case of improvements in TFP and GCI (MEF, 2018, pp. 14 and 19).

This policy has nine priority objectives (PO), several of which include references to comparisons with other countries, and two of them in particular mention the international sphere in the objective itself. Namely:

- PO 1: Provide the country with high-quality economic and social infrastructure
- PO 2: Strengthen human capital
- PO 3: Promote the development of capacities for innovation, adoption, and transfer of better technologies
- PO 4: Foster local and external financing mechanisms
- PO 7: Improve the conditions for foreign trade in goods and services

Regarding PO 1, transportation infrastructure conditions in Peru are below the Pacific Alliance average and, naturally, in comparison to the OECD as well. In concrete, it translates into a higher freight cost that, when compared to tariffs (calculation based on the cost of exporting to the United States), is 20 times greater than the OECD average (MEF, 2018, p. 26). In relation to PO 2, on human capital, comparisons to other economies shows an enormous gap between Peru and countries like the United States, and even Chile, in terms of reading comprehension and mathematics, among other aspects.

Concerning PO 3, on innovation and technology, it is noted that there is strong positive correlation between GDP per capita and spending on Research and Development (R&D). However, Peru only spends 0.11% of its GDP on R&D, which places the country in the last position when compared to other Latin American countries, the United States and OECD countries—based on 2015 figures for Peru and 2014 for the others (MEF, 2018, p. 44). Peru also lags behind the Pacific Alliance and OECD countries in terms of financing mechanisms, included in PO 4.

In sum, although there is an international comparative analysis component in the background, this plan lacks a strategy to, for example, identify relevant lessons to be learned from experiences of countries that are references for Peru. Such lessons could contribute to enhancing national policies to help Peru achieve the competitiveness levels

[15] The economic complexity of a country is calculated based on the diversification of its exports and its ubiquity, i.e. the number of countries capable of producing the same items. It measures the level of productive sophistication of an economy. The ability of a country to produce new products is related to the pool of skills accumulated, which enables the economy to produce highly complex goods and, therefore, boost economic growth more easily than those countries with fewer skills (Hidalgo & Hausmann, 2009).

of those countries. Furthermore, although some Asian countries are mentioned, most cases use Latin American and OECD countries as international benchmarks.

Regarding PO 7, on foreign trade, the comparative analysis is centered on the Pacific Alliance and it mainly focuses on exports diversification. The policy guidelines to achieve this objective stresses the need to strengthen foreign trade logistics chain, as well as the insertion and climbing up in global and regional value chains, among other aspects (MEF, 2018, p. 72). In this regard, the National Policy and the National Plan for Competitiveness and Productivity converge with the PENX 2025. However, the latter was formulated before the other two instruments, which suggests it might be necessary to introduce adjustments to make them compatible with each other.

The National Plan for Competitiveness and Productivity, which was developed based on the policy of the same name, provides measures and target dates to meet the priority objectives. One of the most important measures is the National Infrastructure Plan for Competitiveness.

This plan has an international component, as one of its objectives is “to promote access to external markets”. It entails “prioritizing infrastructure that improves Peru's competitiveness in international markets”, given that “with greater connectivity, Peruvian products will be able to access international markets at lower costs”. Moreover, “as Peru becomes more competitive, it will also become a major destination for foreign investment”. Hence, “the development of ports, airports and logistic chains […] is a necessary condition for the sustainability of the Peruvian economy” (MEF, 2019b, p. 13).

In close connection to previous provisions, this plan includes once again the components of the national vision on international economic insertion of Peru, namely: foreign trade and FDI. To complement them, infrastructure is added to the list, as it is instrumental to provide connectivity with competitive costs.

To estimate the long-term national infrastructure deficit, the National Infrastructure Plan for Competitiveness compares Peru to various countries holding benchmark results for long-term goals of this Andean country. In most infrastructure sectors and subsectors, Peru is compared with the average for OECD countries. In other areas, countries that face geographical challenges similar to those of Peru were selected for the comparison, such as Pacific Alliance countries, among others. Interestingly, in the case of ports, Peru's long-term infrastructure gap is determined using as reference the average of a group of Asian countries composed of China, Indonesia, Japan, Republic of Korea, Malaysia, the Philippines, Singapore, Thailand and Vietnam (MEF, 2019b, pp. 16-21).

In the framework of PO 7, aiming at improving the conditions for foreign trade in goods and services, the National Plan for Competitiveness and Productivity proposes other measures that make direct references to the international sphere. These include the development of special economic zones, as mechanisms that promote private investment in Peru “particularly large investments in technology to enhance the degree of sophistication in goods and services”. In addition, it proposes to position Peru as a logistics hub, that is, “an important logistics platform [...] aimed at connecting national and international logistics networks”. Among others actions, the measures include improving port-airport connectivity and access to them, improving the Callao-Chancay multimodal axis and establishing an efficient national logistics system based on good international practices (MEF, 2019a, pp. 36-37).

Moreover, the so-called National Strategy for the Development of Industrial Parks is considered to be a measure that seeks to create conditions to develop a productive business environment, as stipulated by PO 6 (MEF, 2019a, p. 30). These elements

introduce the international sphere in the multisectoral plans analyzed, but they make no explicit reference to the learning opportunity offered by the Chinese and Asia-Pacific successful experiences in many of these issues.

Sectoral plans targeting the international arena

When describing key characteristics of the current state of affairs on the international stage, the Long-Term Strategic Sector Plan 2012-2021 rightly highlights "the transformation of the international political order towards a multipolar system" (MRE, 2012, p. 5). Meanwhile, its predecessor, the Long-Term Strategic Sector Plan 2003-2015, considered that the world was fast approaching "the establishment of a new unipolar international political order" (MRE, nd, p. 1). Although not explicitly mentioned, the rise of China as a world power would play a role in the dawn of a multipolar order.

This plan aims that Peru "consolidates a solid international position". This ambition also seen in the Vision of Peru to 2050, which, as already pointed out, states that Peru will be "a State […] solidly integrated into the world stage". In this context, it is necessary to specify the components of a solid international integration and how to realize it. Due to its international nature, the plan on foreign affairs has a geographical focus and, in the vision guiding this plan, priority is given to "the Andean, Amazonian, Pacific, South American and Latin American bordering regions" (MRE, 2012, p. 5). It is reasonable to assume that the "Pacific" region includes China and the rest of East Asian countries, meaning that these nations would also be included in the priority areas for Peruvian foreign affairs.

In the strategic axis of "Opening up to the World", it is proposed that Peru should deepen its political relations with Japan, China, the Republic of Korea and India, and with other countries and multilateral mechanisms in Asia and in the Pacific basin. There is no explanation as to why these countries are mentioned in that order. In broad terms, this list of countries highlights the importance of Northeast Asia (where the main economic partners of Peru are) and India. This entails that the strategy considers Asia as a whole, not only Asia-Pacific, since India is not part of that group (MRE, 2012, p. 14).

At the level of specific mechanisms, the plan mentions strategic alliances, improving legal frameworks for bilateral relations and participation in multilateral forums. The economic sphere includes the usual components, trade, investment, cooperation, technology transfer, among others. The new component is the link between these elements and the Trans-Pacific Partnership (TPP) which was, at the time this plan was formulated, the main initiative under construction on economic integration in Asia-Pacific.

As for PENX 2025, this also constitutes a sectoral plan with strategies that are directly related to the international sphere. The following strategic objectives were established: (i) deepen the internationalization of companies; (ii) increase and diversify exports of goods and services with higher value-added while observing sustainability concerns; and (iii) improve the competitiveness of the exporting sector. Four pillars have been defined as a frame of reference for a series of lines of action, programs and projects. It is an extensive plan whose final goal is to consolidate the presence of Peruvian exporting companies abroad (MINCETUR, 2015, p. 51).

It highlights three large regional markets as the most important: "in recent year, the large Asian market has become the great driver of international business, including the more traditional markets of the European Union and North America" (MINCETUR, 2015, p. 57). In view of the foregoing, it can be inferred that the plan would seek to promote closer ties with Asia in order to harness the opportunities offered by this driver of international business. However, in doing so, Peru should not neglect traditional markets and partners.

One of the PENX programs consists of drafting, systematizing and implementing of Market Development Plans (MDP). In the PENX 2003-2013, their predecessors were the Operational Plans for Market Development (OPM). Regarding Asia-Pacific countries, there were OPMs for China, Japan and ASEAN 1 (Malaysia, Singapore and Thailand), which were issued in May 2007, as well as for the Republic of Korea, issued in August 2010 (MINCETUR, 2020b).

In the framework of PENX 2025, there are already eight MDPs for American markets and the same number for European markets, but only two for Asian markets, namely, Republic of Korea and Japan, issued in July and August 2019, respectively (MINCETUR, 2020c). In other words, according to the information available on the MINCETUR website on April 20, 2020, the specific plan for China has not been updated since 2007. That represents an important pending task, especially considering that the process to upgrade the Peru-China FTA is under negotiation.

The Strategic Plan for Foreign Affairs was approved in 2012 and the PENX in 2015, both aiming 10 years ahead. Therefore, these instruments require updates to better reflect the current global circumstances, as well the provisions in the Vision of Peru to 2050—which will lead to the design of a new National Strategic Plan—and multisectoral plans, such as the Plan for Competitiveness and Productivity. What is more, Asia-Pacific has experienced significant changes, especially the transformation and international projection of China, which suggests that it is necessary to review the Peruvian long-term strategy for its international projection with respect to this region.

Conclusions

In 2021, Peru celebrates the bicentennial of its independence and also the 50th anniversary of the establishment of diplomatic relations with the People's Republic of China. Therefore, it is a timely occasion to reflect about what the agenda for Peru-China relations in the next decades should be, as well as to identify the Peruvian priorities in Asia-Pacific. Both topics are interconnected due to the central role of China in the context of the Peruvian insertion in that region.

Aiming to contribute to this strategic planning, this study has sought to provide insights on the transformation of the Chinese economy and the trends for its future, as well as its international economic strategy. To this end, rather than analyzing Peru-China relations specifically, the methodology adopted consisted of exploring the evolution of the Chinese economy in order to draw insights and identify trends that Peru could use to design a strategy that leads to substantial changes in the traditional pattern of its relations with China, characterized mainly by raw materials exports and investments in extractive sectors.

A second aspect to highlight is that the study has not focused on market opportunities in China and Asia-Pacific in general, but rather on the results of their development strategies. To this end, it has analyzed various indicators of competitiveness and productivity to offer a comparison between Peru and economies from Asia and Oceania in the Pacific basin that are members of APEC. It has sought to provide insights aiming at contributing to enriching the Peruvian agenda with China and the Asia-Pacific region in a way that supports structural changes in Peru.

A third aspect to note is that this research has explored how China and Asia-Pacific are contemplated in the framework of Peruvian national strategic planning. The analysis has shown that Peru has an important weakness: the lack of a clearly defined vision for the country’s insertion in the global economy, an issue which reflects into the Peruvian

economic projection towards China and Asia-Pacific. It is crucial to define the vision for Peru's insertion in the global economy and the measures to realize it. The conclusions from this study could contribute to that purpose in regards to China and Asia-Pacific economies.

The following paragraphs present the main conclusions from this study.

1. China's economic transformation and its climbing up in global value chains open opportunities for Peru

China has become the second largest economy in the world, after the United States, in terms of GDP in current dollars, or even the largest economy when measured according to other methods, such as GDP PPP in constant dollars.

Increased productivity

Undoubtedly, China represents an interesting case to be studied due to the experiences and lessons that can be learned from its transformation process. Its strength is based on, among other factors, being the economy that has had the highest productivity growth in Asia-Pacific since 1990.

SEZs

The Chinese transformation process involved the growing participation of the country in global value chains. The first SEZs contributed to this and, once successful, eventually gave way to the creation of thousands of other manufacturing centers and industrial clusters throughout the country, which also became important world production centers. In 2019, China had 2,543 economic zones, which accounted for almost half of the SEZs that existed in the world. It suggests that SEZs can play an important role in attracting investment and encouraging exports, considering the Chinese economic success.

From "made in China" to "created/designed in China"

China acquired the central role of the "world's factory" and it is considered one of the few developing countries to be deeply integrated in global value chains. Nevertheless, in addition to the labor-intensive activities of assembling final goods, which were considered as China's main comparative advantage in the past decades, the country has increased its industrial capacity to produce and export high-technology goods, moving up the global value chains. Its objective is to upgrade its position from the "world's factory" to a model in which the creation and design takes place in China.

It is a structural reform on the supply side that consists in improving manufacturing productivity, and fomenting advanced manufacturing sectors and the full use of modern technologies (e.g. Internet, big data, artificial intelligence). China seeks to take part only in middle and upper segments of global value chains that require qualified local human capital.

Production delocalization and the opportunities for Peru

In close connection to this process of moving up in global value chains, there is a process of production delocalization to other countries in Asia-Pacific, which are progressively replacing China in the production of labor-intensive goods (including intermediate products). And this process could represent an opportunity for Peru.

Certainly, the challenge for Peru with respect to China and Asia-Pacific lies in the need for policies aimed at diversifying exports composition. The country is already moving in this direction, seeing as exports of non-traditional agricultural, agro-industrial and fishing products have been notably gaining importance in recent years. However, it is necessary to make efforts in a front that is complementary to exports diversification, namely, manufacturing. In this regard, special attention should be given to intermediate goods that can be inserted in global value chains led by firms from China or other Asia-Pacific economies.

Manufacturing exports show the capacity of an economy to produce and export high value-added goods. In the case of LAC, its share of this type of exports is marginal and decreasing. In 2018, it accounted for 1.3% of world manufacturing exports, which is slightly smaller than the percentage observed in 2001. Therefore, the challenge is not only for Peru but for LAC as a whole.

In this context, it is recommendable to analyze the process of manufacturing production delocalization and integration between Northeast and Southeast Asia in order to draw lessons learned to promote this process among Asian economies and Latin American countries in the Pacific basin, particularly between China and Peru. In the present study, guidelines have been given to advance in this direction.

2. The position of China as a net investor will be reinforced by the Belt and Road Initiative, which will offer opportunities for Peru

In recent years, China's investments abroad have reached outstanding levels, making the Chinese economy one of the main sources of foreign direct investment in the world. In 2015, the country became a net investor, as outflows of FDI from China surpassed, for the first time in its history, the inflows it received. The development of the Belt and Road Initiative, which entails financing and investments in infrastructure and the presence of Chinese companies in industrial parks in developing countries, will certainly strengthen this trend.

Peru in the Belt and Road Initiative

On April 25, 2019, Peru and China signed the "Memorandum of Understanding on Cooperation in the Framework of the Initiative of the Silk Road Economic Belt and the 21st Century Maritime Silk Road". It is therefore advisable for Peru to deepen its analysis on this topic in order to define its implementation strategy.

The key concept to understanding the Initiative are economic corridors, based on connectivity, which encompass not only infrastructure (transportation, energy and communications), but also the productive sector, including SEZs and other instruments to facilitate the integrations into global value chains. In other words, it is about building economic corridors, not isolated infrastructure projects.

South America connectivity with Asia-Pacific

Since the emphasis should be on connectivity with China, the extension of the Belt and Road Initiative to Latin America would be, in fact, the extension of the 21st Century Maritime Silk Road to the Pacific. Therefore, it is necessary to identify the potential role that Peru can play in transpacific connectivity.

Peru is located in the center of the Pacific coast of South America. That is why it is in a position to become a hub for international trade between the two sides of the Pacific basin and, in particular, between China and South America. It should be noted that

several countries in the region, not only Peru, share the same ambition. Ultimately, competitiveness will determine which country will play this role of hub on the South American side of the Pacific. Peru needs to update its strategy on this matter. The country should also continue to promote air connectivity.

Furthermore, digital connectivity represents another area with great potential. Some important questions have to be addressed in this regard, such as whether it is feasible to establish a direct submarine cable between South America and Asia and, if so, where the digital hub should be located in the South American side of the Pacific. Chile has made progress in developing technical studies and in identifying a route that would connect Asia and South America through Oceania. In consequence, the possibilities of Peru also being considered for such a connection would be low. In any case, the country should develop studies on this matter and incorporate the topic in a comprehensive strategy to harness the potential of the digital economy.

Towards a Peru-China transpacific economic corridor

In sum, the extension of the Belt and Road Initiative to Latin America entails working on establishing one (or several) transpacific economic corridors, which would include infrastructure projects that have an impact on transpacific relations, as well as logistical aspects and productive projects related to such corridors. Peru could be the anchor of this corridor in South America. The Peruvian agenda with China could be enriched with this topic, but it should be framed within a clear strategy to be designed based on the feasibility and benefits that this Peru-China transpacific economic corridor could bring.

The substantial content of Peru-China relations

Peru has with China a Comprehensive Strategic Association, an FTA and a memorandum of understanding on the Belt and Road Initiative. Moreover, the country is a prospective member of the AIIB. What is more, Peru is the second destination for Chinese FDI in Latin America (after Brazil), it is China's third most important trading partner in South America (after Brazil and Chile), and it holds the largest community of Chinese diaspora in Latin America. The challenge for Peru is to continue to grow by increasing competitiveness and productivity. Infrastructure is indispensable to make that possible.

The route to follow

There are three important tasks ahead. First, design the transpacific economic corridor within the framework of the Belt and Road Initiative and identify the role for Peru in that context. Second, evaluate the feasibility of this vision. Third, identify the instruments and measures to achieve it. This effort requires a long-term perspective and the collaboration between government, private sector and academia would be very important.

To enrich the Peruvian strategy, it is important to identify the lessons learned from the 6 years of implementation of the Belt and Road Initiative in other regions. More specifically, examine the construction of economic corridors between China and neighboring countries. China’s connection with Southeast Asian countries would be a very interesting case study. In any case, it is important to note that there are key differences in regards to the level debt held by nations involved in the Initiative.

3. Goals up to 2050: Could China and Peru converge?

What is China’s vision for the country for the next 30 years? And how about Peru’s own vision? Can the two countries converge? Can the development that China plans to

achieve be a driver for development in Peru? How to realize it? How to go beyond being only suppliers of raw materials and recipients of investment in extractive industries? This study argues that the transformation of the Chinese economy and the Peruvian participation in the Belt and Road Initiative provide an opportunity to discuss this issue.

Two centenary goals in China

The Chinese government has set the so-called two centenary goals. The first of them is to finish building a moderately prosperous society in all respects by 2021, year that marks the 100th anniversary of the CCP. The second and more ambitious goal is to make China a fully developed and advanced nation by 2049, when it is celebrated the 100th anniversary of the foundation of the People's Republic of China.

The set of master plans that guide this process includes the Going Out strategy, Made in China 2025, Five-Year Plans, Belt and Road Initiative, and the long-term vision outlined in recent CCP Congresses. Such plans aim to contribute to China's rise to become the world's leading economy.

China and Asia-Pacific in the Peruvian strategic planning

The present analysis suggests the need to define more clearly how Peru aims to insert itself into the global economy. This vision should give rise to a multisectoral strategic plan for international economic insertion. It should encompass various sectoral dimensions (and actions) in an integrated manner so as to realize the vision for the country’s insertion in the world economy. In this framework, there should be a specific vision for Peru’s economic projection towards China and Asia-Pacific, as well as measures to materialize it.

The Vision to 2050 approved by the National Agreement Forum is the starting point for developing a National Strategic Plan to 2050. Alongside this comprehensive plan, the present study proposes to analyze the possibility of designing a Strategic Plan for International Economic Insertion to 2050. In that case, these two schemes should keep close links to create the conditions to adopt a comprehensive and multisectoral approach for the internationalization of the Peruvian economy.

If this is not possible, the alternative recommendation is to formulate a similar plan (also looking ahead to 2050) specifically for the Peruvian projection towards China and Asia-Pacific. As far as China is concerned, the Belt and Road Initiative could be the opportunity to address the design of such a plan.

4. The gap with Asia-16: challenges concerning competitiveness and productivity

It is a common practice to compare Peru with the rest of Latin American economies. This study has carried out a comparison with the Asian and Oceanian economies in the Pacific basin, which has put in evidence huge gaps that Peru still has to overcome on the road to its development.

Out of the twelve pillars on which the GCI is based, only in macroeconomic stability does Peru have a top performance, ranking number 1 together with other economies of the group analyzed. In the other eleven pillars, Peru lags far behind the most competitive Asia-16 economy, usually sitting at the penultimate or ultimate position in the comparative rankings presented in this study. Regarding the People's Republic of China, in at least half of the GCI pillars, there are significant gaps between the level of competitiveness attained by the Chinese and that of Peru.

Furthermore, although the Peruvian productivity has grown in the past twenty years, it has grown even faster in most Asia-16 economies. Thereafter, the distance between Peru and such economies has become even greater in this key variable. This panorama shows that there are interesting points of reference in Asia-Pacific with which Peru could certainly explore lessons learned that could contribute to its own development process. That becomes particularly more relevant when it is observed how the Peruvian economy lags significantly behind in the comparison with this group. The foregoing could be the basis to renew the Peruvian agenda of cooperation with this region.

5. The state of affairs on the international stage: tension between China and the United States

After exploring different analyses on the so-called “trade war” between China and the United States, the conclusion is that what is at stake in the economic plane is the long-term technological global leadership. Thus, this conflict has structural roots that would hardly be solved with a trade deal. Notwithstanding, international relations analysts often characterize the issue as a broad race for global leadership that goes beyond the economic arena.

They also draw attention to the erosion of multilateralism as a consequence of the US behavior in the past few years. In this context, it is essential to strengthen multilateral institutions as spaces for collaboration and conflict resolution, such as the United Nations, WTO, among others. In addition, in the Pacific basin, it is important to strengthen the APEC forum.

Among the recommendations for APEC's future agenda, the reports from PECC (2019) and AVG from (2019) proposed that high priority should be given to structural reforms in member economies in order to increase productivity through open, well-functioning, transparent and competitive markets. Likewise, digital and technological transformation would bear an enormous potential to support growth, promote innovation and facilitate connectivity, in addition to being an important instrument for social inclusion.

These recommendations are particularly relevant for Peru, as suggested by the comparison of the Peruvian economy with respect to Asia-16. The Asia-Pacific Vision to 2040 represents pathway to revitalize the integration and cooperation in this region in order to ensure that it remains the most innovative and dynamic in the world while building a peaceful and interconnected community. The Peruvian engagement with Asia-Pacific and its economic relations with China should be guided by long-term goals targeting emblematic dates such as 2040 and 2050.

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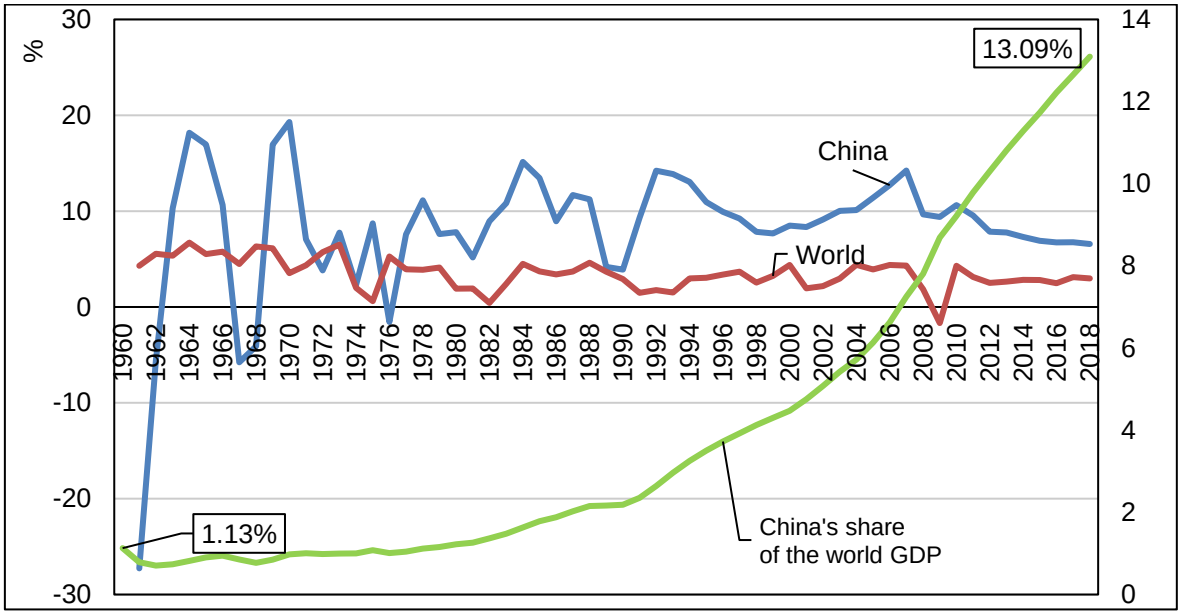
Acronyms

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
AVG	APEC Vision Group
BCRP	Banco Central de Reserva del Perú / Central Reserve Bank of Peru
CAF	CAF, Banco de Desarrollo de América Latina / CAF – Development Bank of Latin America
CCP	Chinese Communist Party
CELAC	Comunidad de Estados Latinoamericanos y Caribeños / Community of Latin American and Caribbean States
CEPLAN	Centro Nacional de Planeamiento Estratégico / National Center for Strategic Planning of Peru
CHINALCO	Aluminium Corporation of China
CIUP	Centro de Investigación de la Universidad del Pacífico / Research Center of the Universidad del Pacífico
CNPC	China Petroleum Corporation
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CTIA	Cellular Telecommunications Industry Association
ESCAP	Economic and Social Commission for Asia and the Pacific
EU	European Union
EXIMBANK	Export-Import Bank of China
FDI	Foreign Direct Investment
FTA	Free Trade Agreements
FTAAP	Free Trade Area of Asia Pacific
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IFDI	Inward Foreign Direct Investment
ITC	International Trade Centre
LAC	Latin America and the Caribbean
MDP	Market Development Plans
MEF	Ministerio de Economía y Finanzas – Perú / Ministry of Economy and Finance
MFA	Ministry of Foreign Affairs of the People's Republic of China
MINCETUR	Ministerio de Comercio Exterior y Turismo – Perú / Ministry of Foreign Trade and Tourism of Peru
MOFCOM	Ministry of Commerce of the People's Republic of China
MRE	Ministerio de Relaciones Exteriores – Perú / Ministry of Foreign Affairsof Peru
NDRC	National Development and Reform Commission - China
OECD	Organization of Economic Cooperation and Development
OFDI	Outward Foreign Direct Investment
OPM	Operational Plans for Market Development
PECC	Pacific Economic Cooperation Council
PENX	Plan Estratégico Nacional Exportador / National Strategic Exports Plan
PO	Priority Objective

PPP	Purchasing Power Parity
R&D	Research and Developmennt
RCEP	Regional Comprehensive Economic Partnership
SCMP	South China Morning Post
SDGs	Sustainnable Development Goals
SEZ	Special Economic Zone
SINAPLAN	Sistema Nacional de Planeamiento Estratégico / National System for Strategic Planning of Peru
SINOPEC	China Petroleum & Chemical Corporation
SUBTEL-MTT	Subsecretaría de Telecomunicación del Ministerio de Transportes y Telecomunicaciones de Chile / Subsecretariat of Telecommunications, Ministry of Transportation and Telecommunications of Chile
TFP	Total Factor Productivity
TPP	Trans-Pacific Partnership
UNCTAD	United Nations Conference on Trade and Development
USTR	United States Trade Representative
WIPO	World Intellectual Property Organization
WITS	World Integrated Trade Solutions
WTO	World Trade Organization

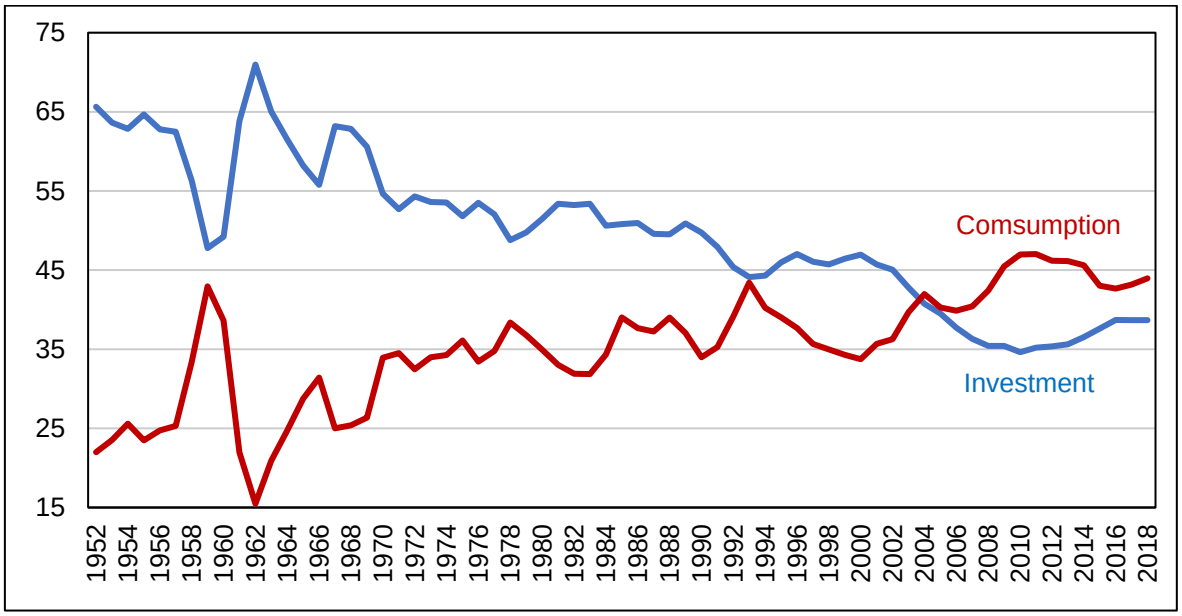
Annex 1: Figures

Figure 1
GDP growth in China and the world and China's share of the world GDP 1960-2018
(in % and in constant 2010 dollars)



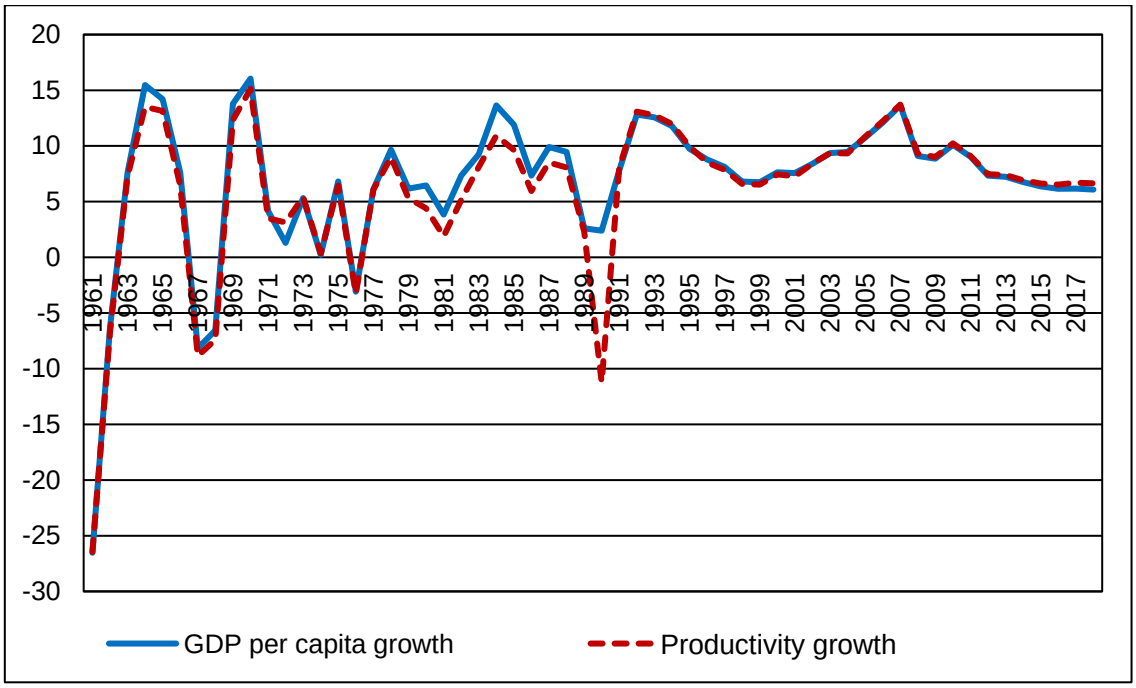
Source: World Bank (2020b). Compiled for this study.

Figure 2
Percentage distribution of China's GDP from the expenditure perspective: consumption and investment 1952-2018 (in current yuan)



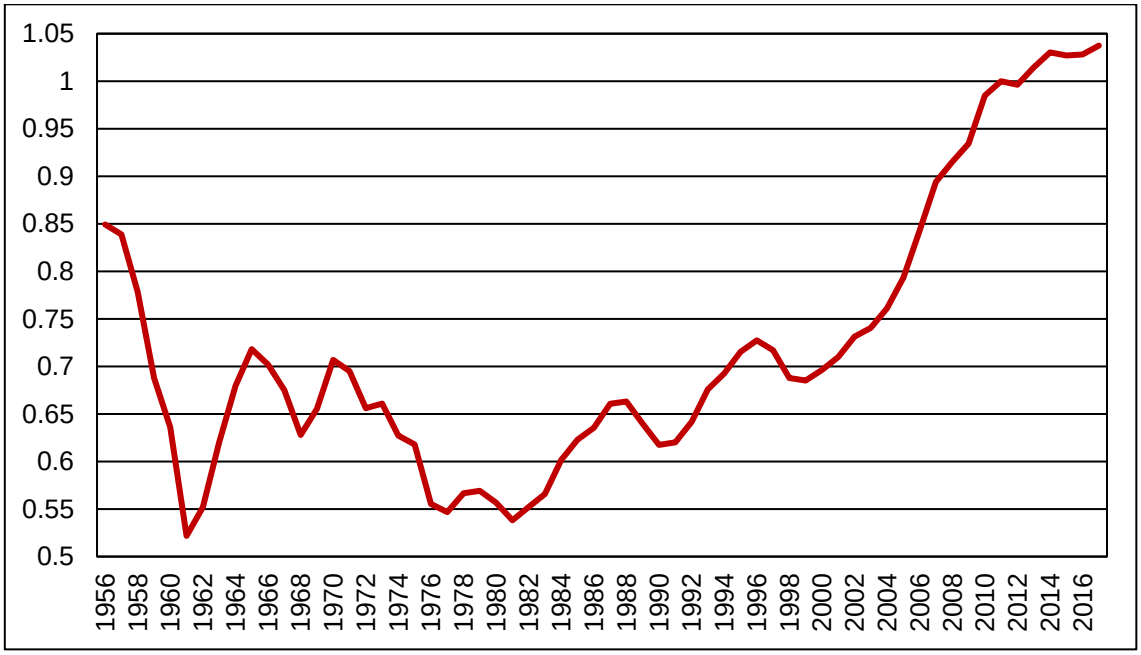
Source: National Bureau of Statistics of China (2019a). Compiled for this study.

Figure 3
GDP per capita and average productivity per worker 1961-2018 (in %)



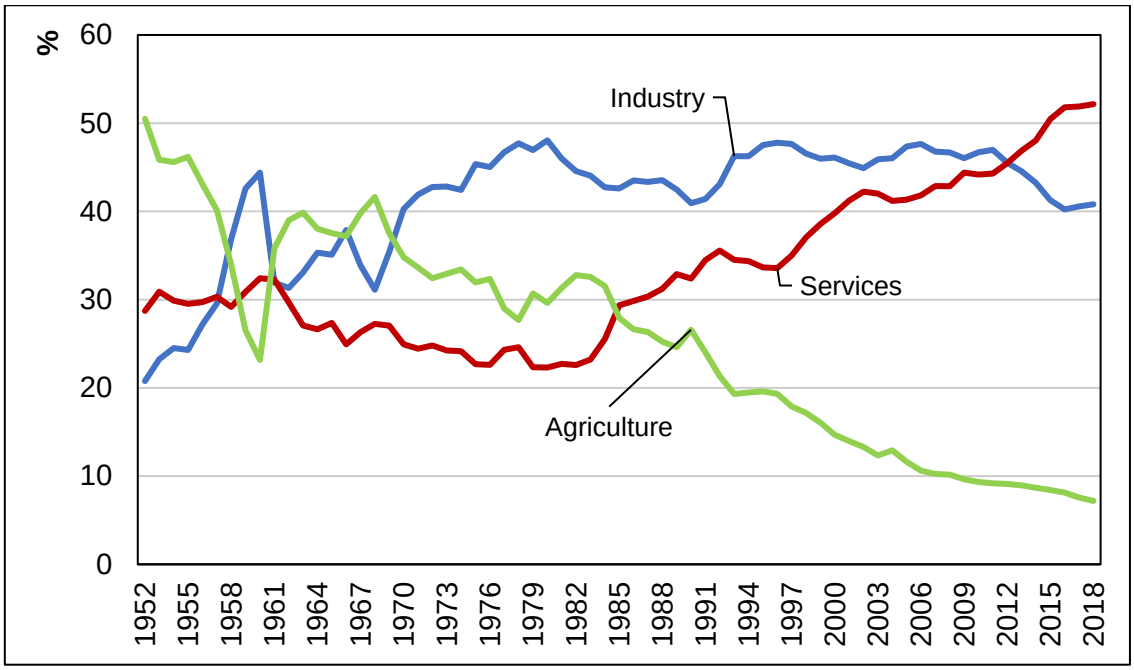
Source: National Bureau of Statistics of China (2019a) and World Bank (2020b). Compiled for this study.

Figure 4
Evolution of TFP in China in constant national prices 1956-2017 (2011 = 1)



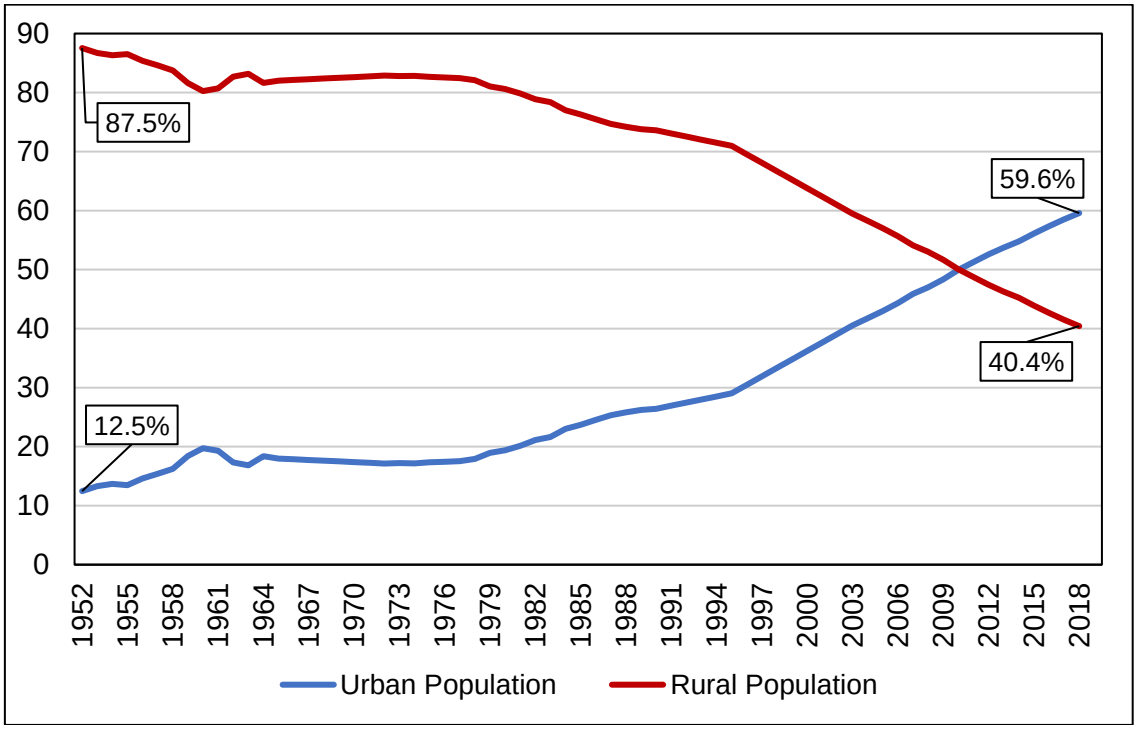
Source: Feenstra et al. (2015). Compiled for this study.

Figure 5
Percentage composition of China's GDP in current yuan by sector 1952-2018 (in %)



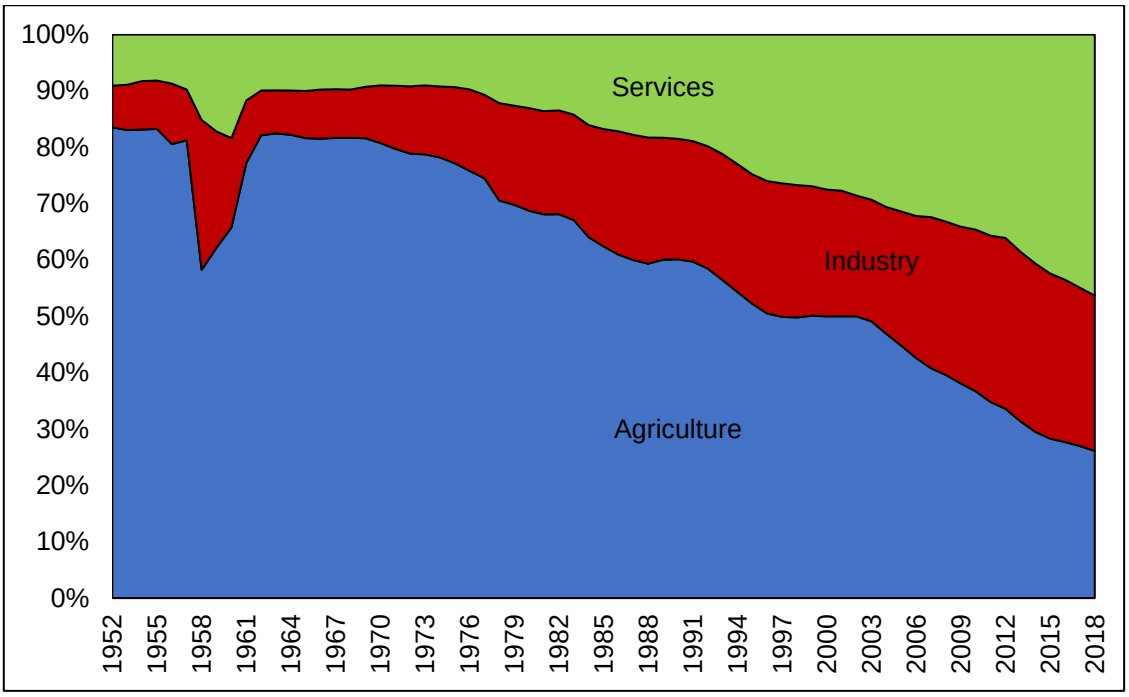
Source: National Bureau of Statistics of China (2019a). Compiled for this study.

Figure 6
Urban-rural distribution of the total population in China 1952-2018 (in %)



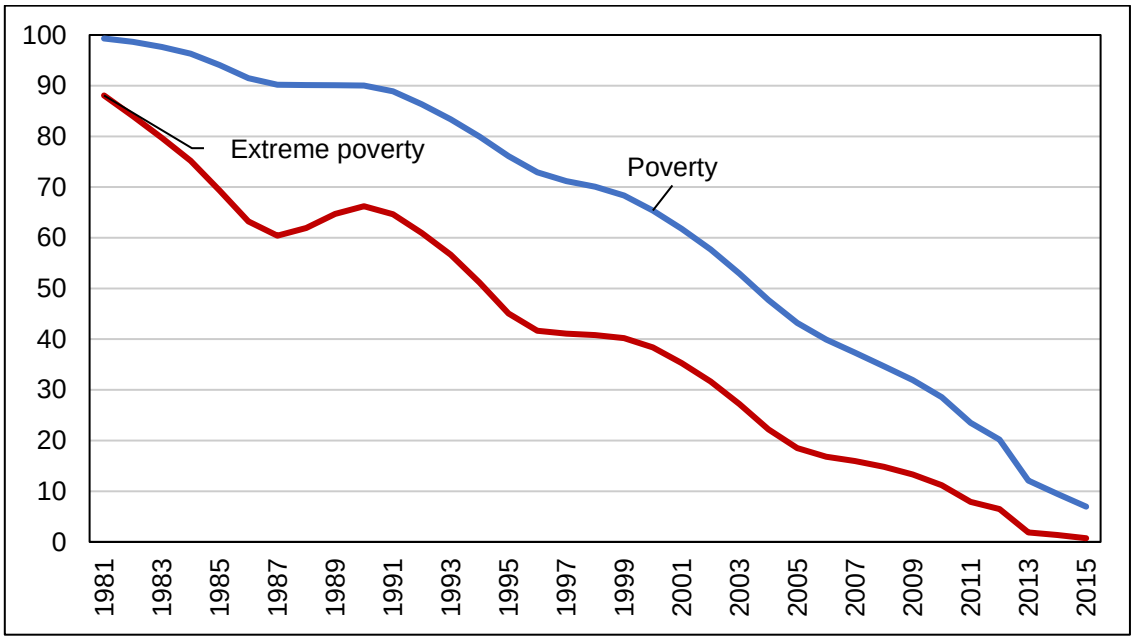
Source: National Bureau of Statistics of China (2019a). Compiled for this study.

Figure 7
Percentage evolution of employment by sector 1952-2018



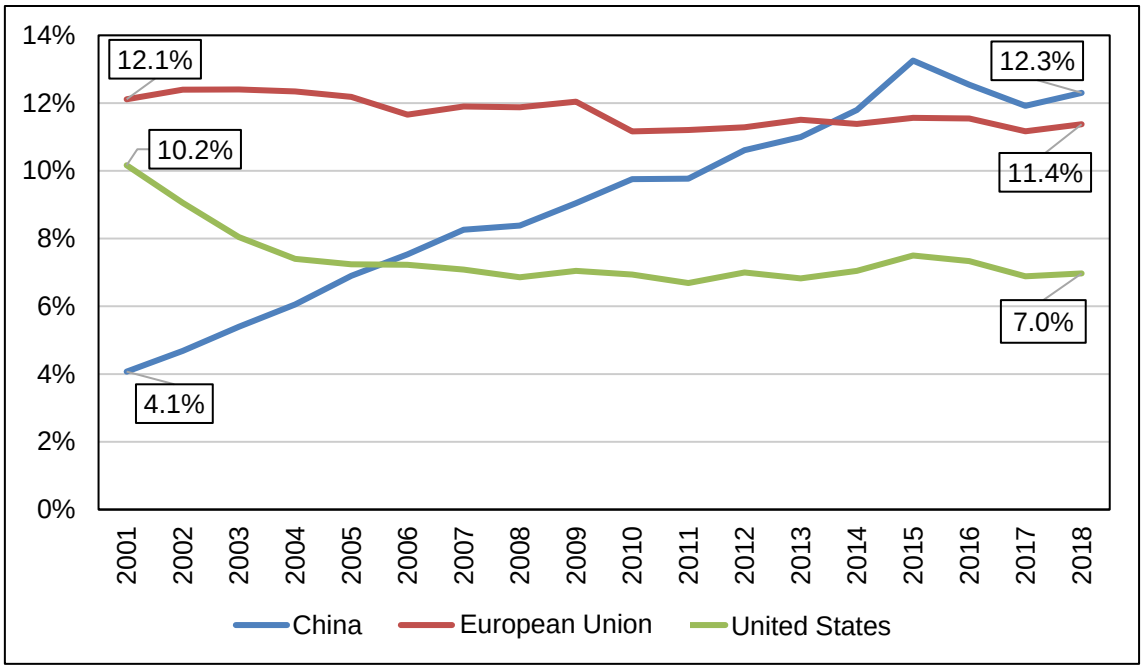
Source: National Bureau of Statistics of China (2019a). Compiled for this study.

Figure 8
Evolution of poverty and extreme poverty in China 1981-2015 (in %)



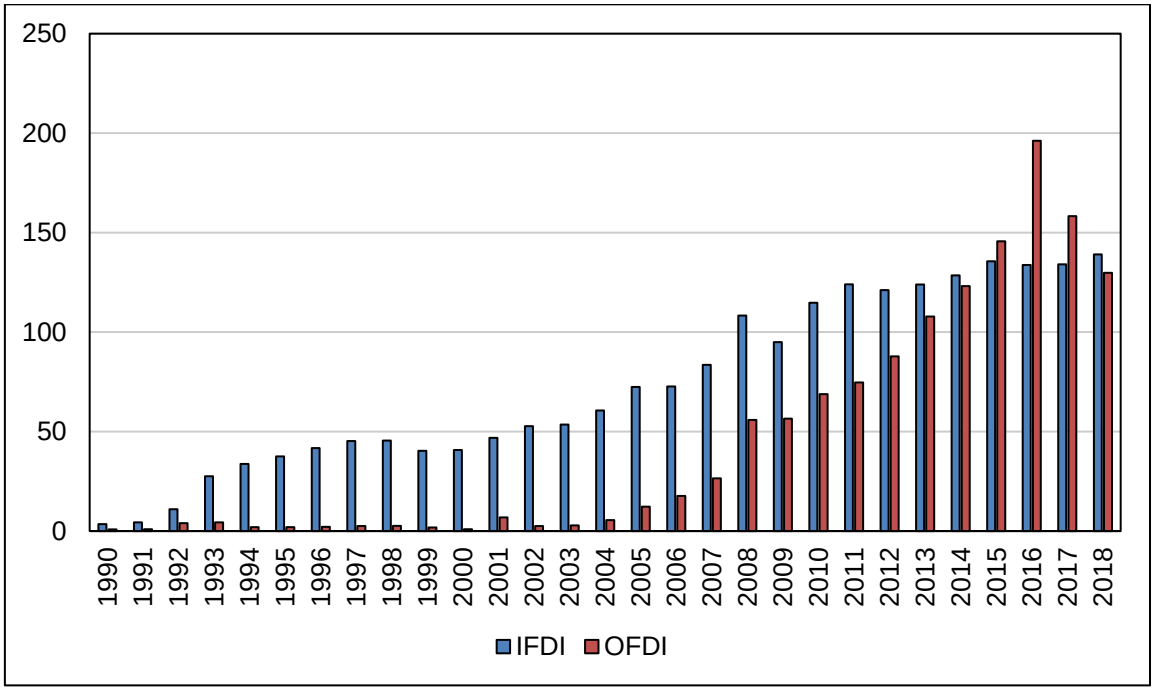
Note: Estimates for the period 1981-2015 based on the data from the World Bank corresponding to: 1981, 1984, 1987, 1990, 1993, 1996, 1999, 2002, 2005, 2008 and 2010 to 2015. The poverty line is defined at US$ 3.20 per day and extreme poverty line of US$ 1.90 per day (both in constant 2011 dollars in PPP).
Source: World Bank (2020a). Compiled for this study.

Figure 9
Shares of China, the European Union, and the United States in world exports
2001-2018 (in %)



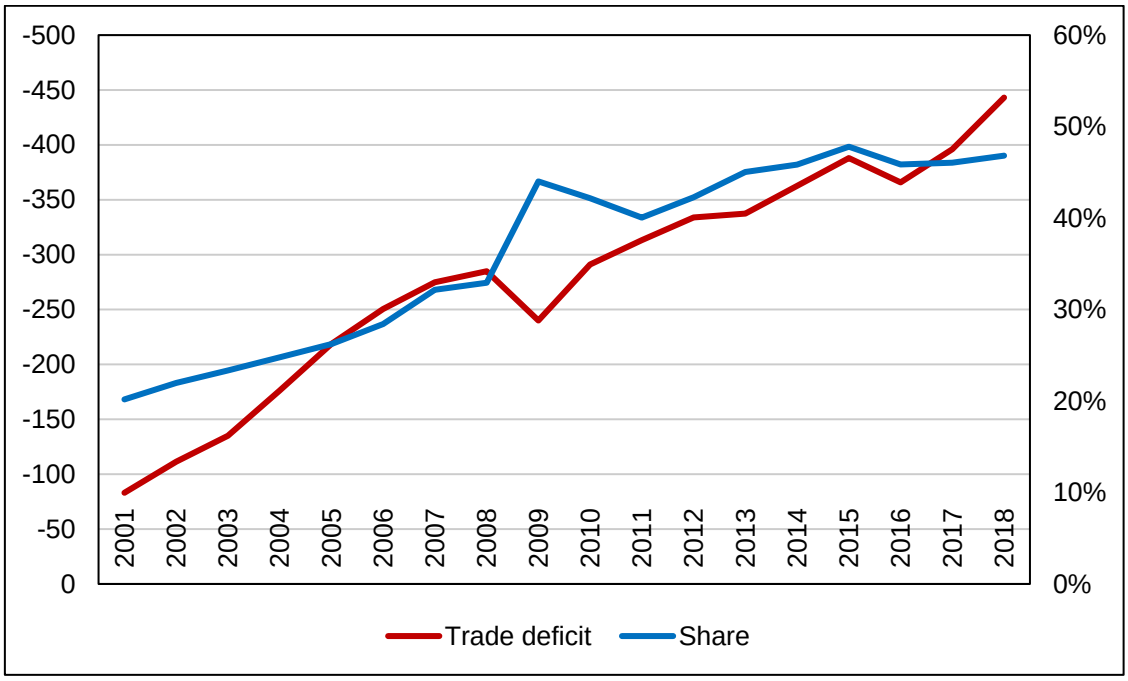
Source: World Integrated Trade Solution – WITS (2020). Compiled for this study.

Figure 10
Flows of IFDI and OFDI to and from China 1990-2018 (in billions of US$)



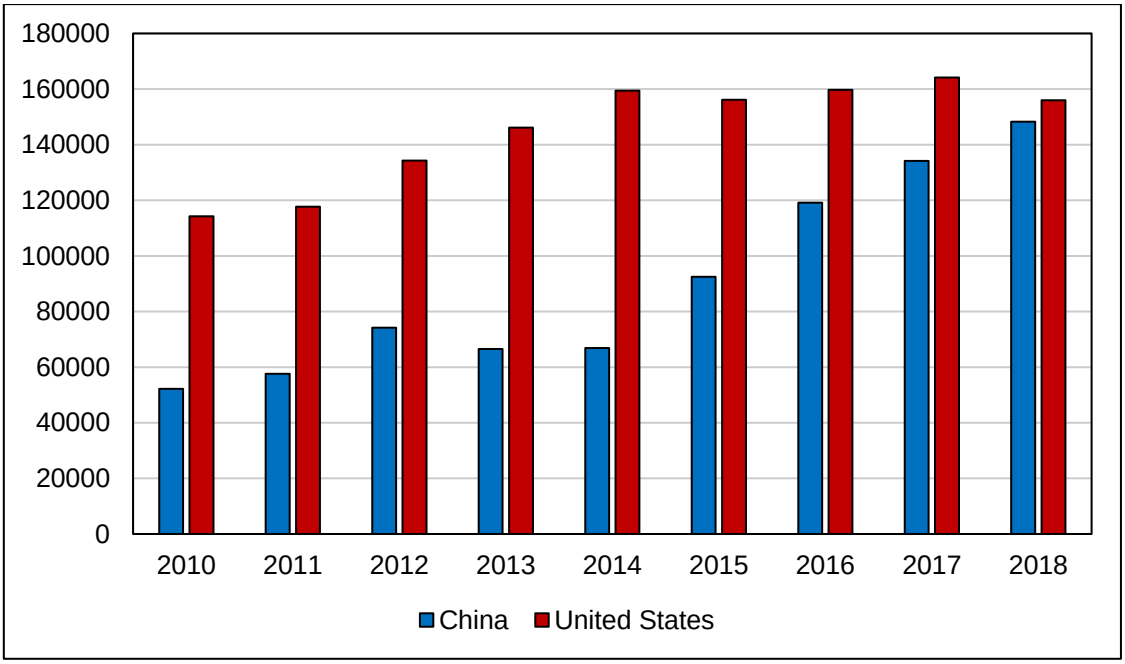
Source: UNCTAD (2020a). Compiled for this study.

Figure 11
Evolution of the US trade deficit with China and its share of the total deficit 2001-2018
(in billions of US$ and %)



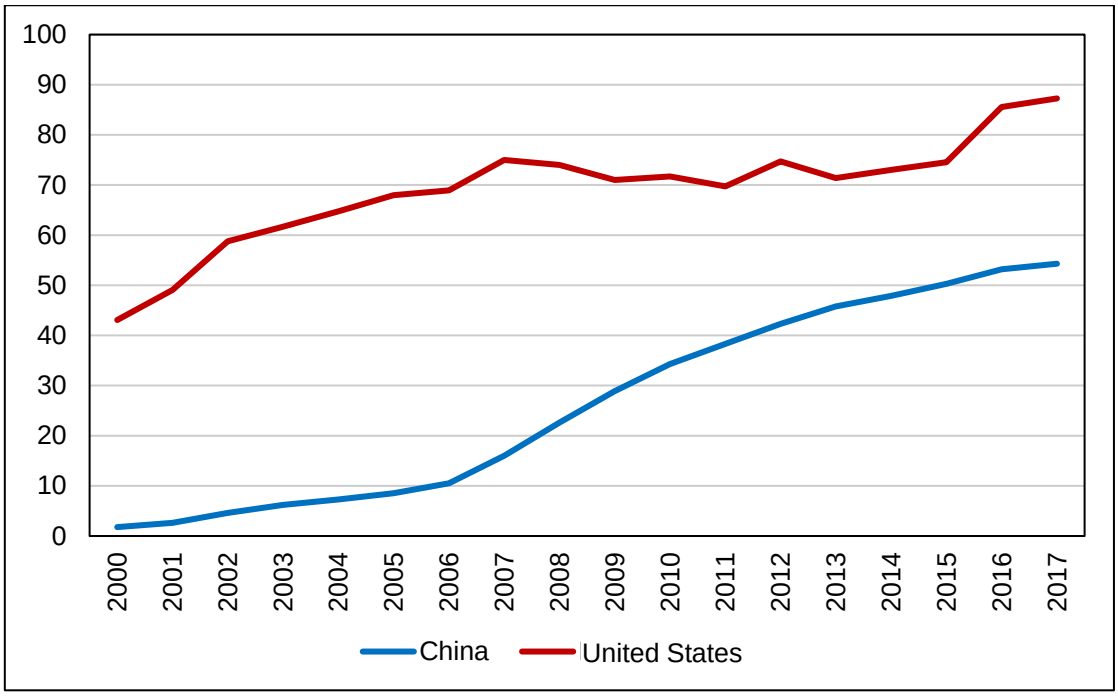
Note: The axis on the left represents the trade deficit, while the axis on the right is the share of the total deficit.
Source: International Trade Centre – ITC (2020). Compiled for this study.

Figure 12
Number of patents granted by China and the USA in high-tech sectors 2010-2018



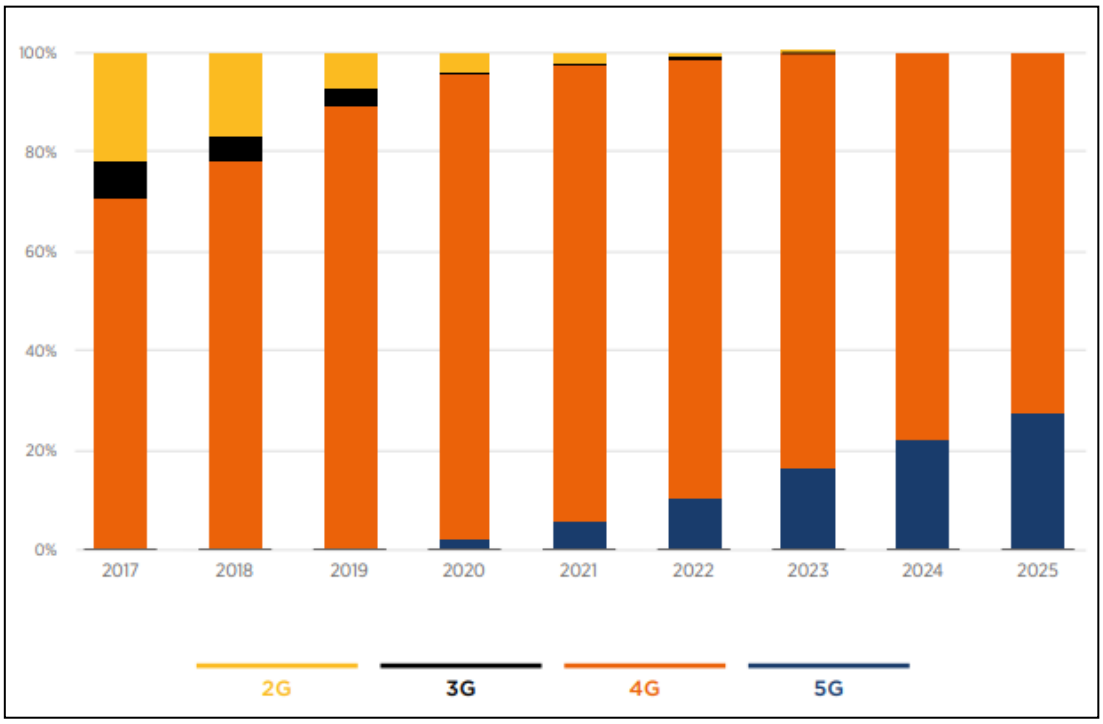
Source: WIPO (2020). Compiled for this study.

Figure 13
Percentage of population using the internet in China 2000-2017



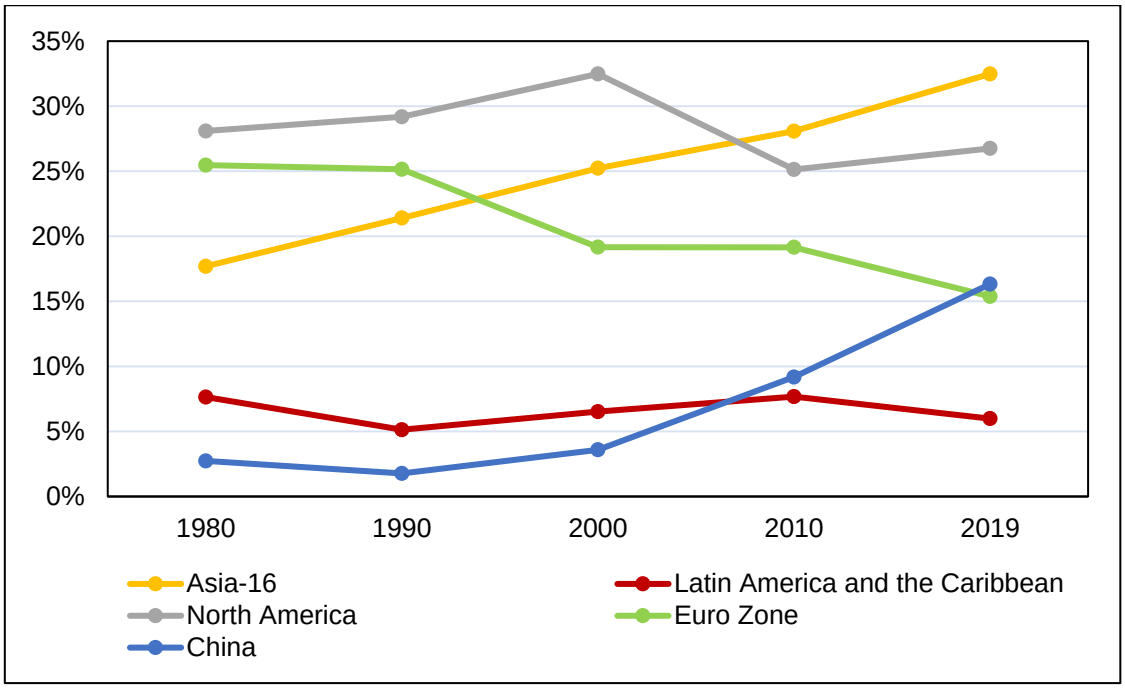
Source: World Bank (2020b). Compiled for this study.

Figure 14
Connections in China by technology generation 2017-2025 (% of total connections)



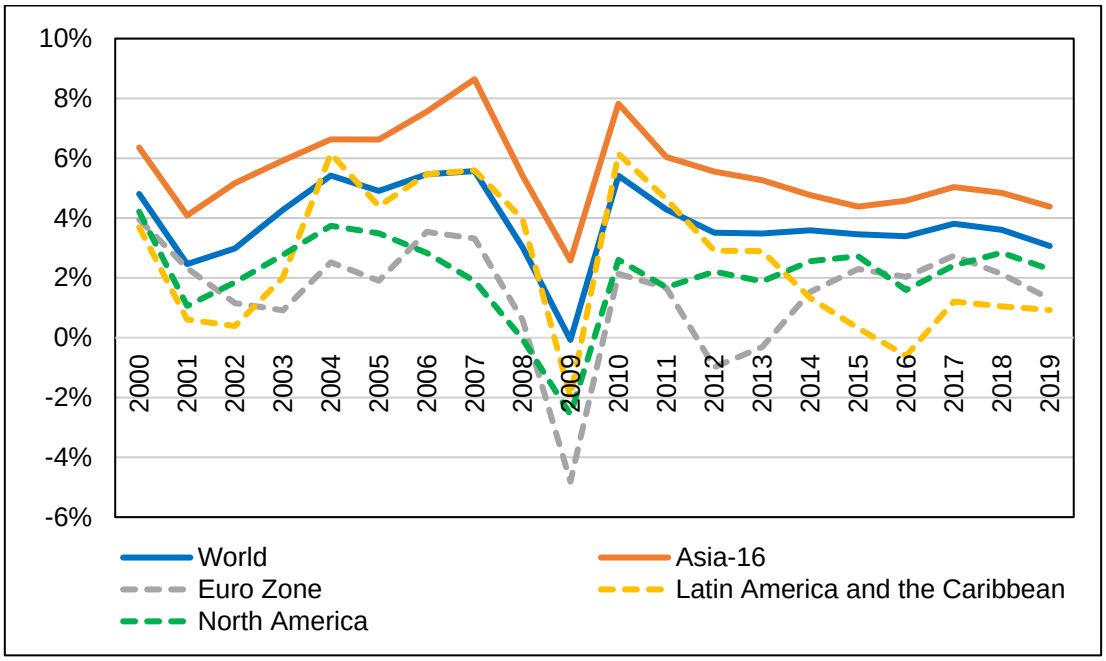
Source: Extracted from GSMA Intelligence (2019)

Figure 15
Share of regions in the world GDP 1980-2019 (in %)



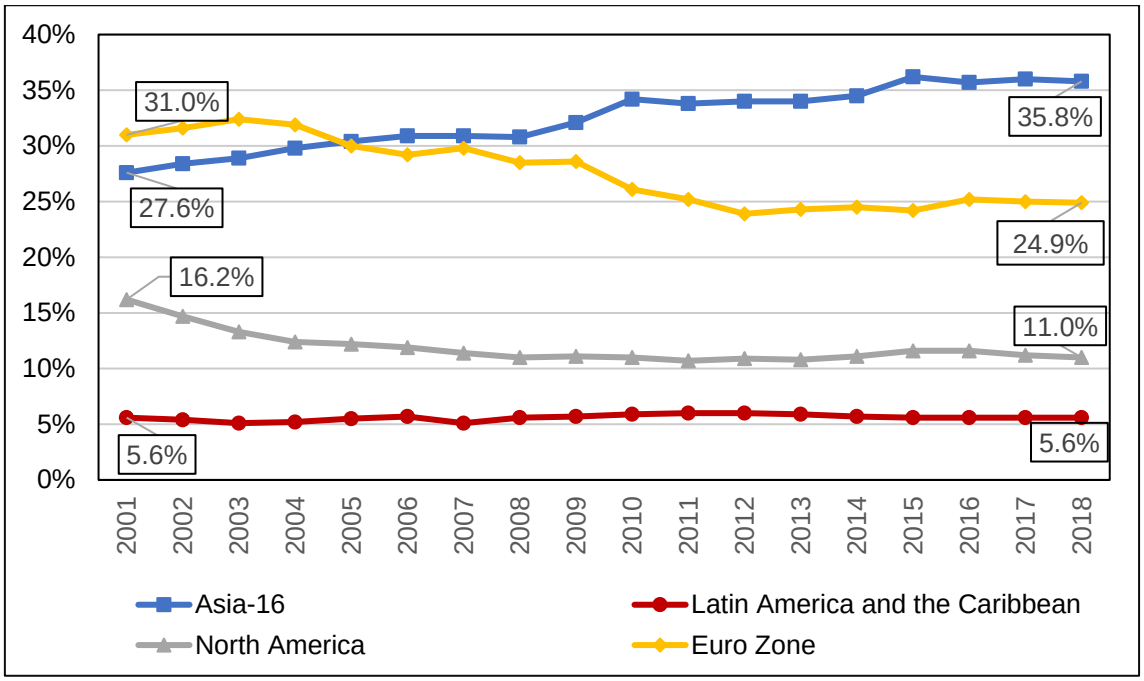
Source: International Monetary Fund (2019). Compiled for this study.

Figure 16
Average economic growth rates by regions of the world 2000-2019 (in %)



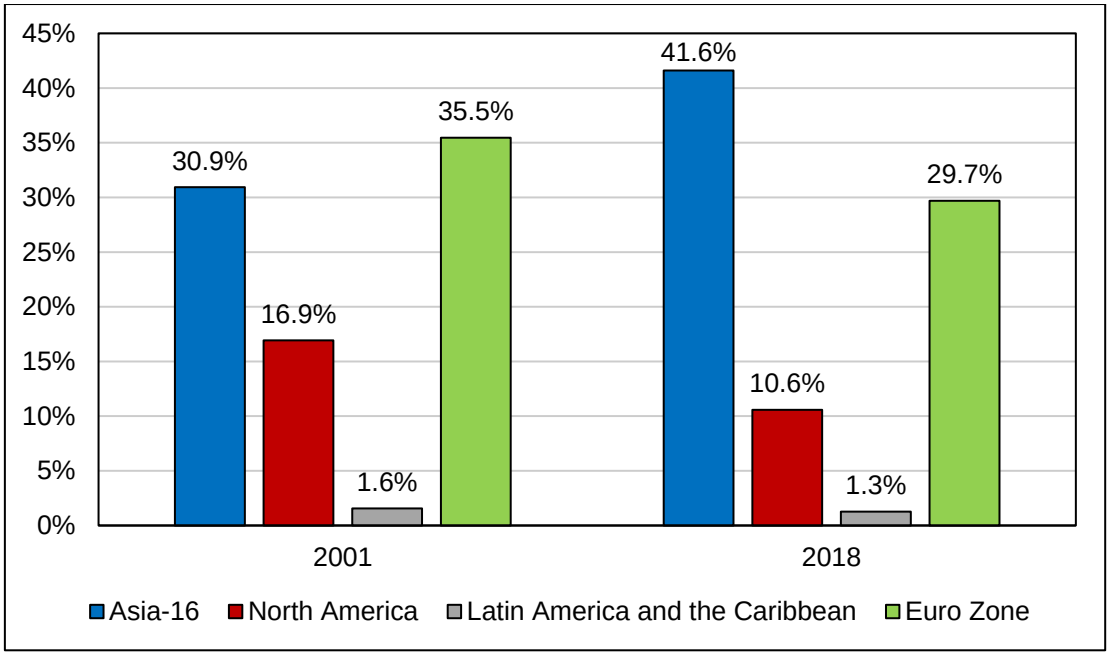
Note: Based on GDP at current prices in purchasing power parity (PPP)
Source: International Monetary Fund (2019). Compiled for this study.

Figure 17
Share of regions in world exports 2001-2018 (in %)



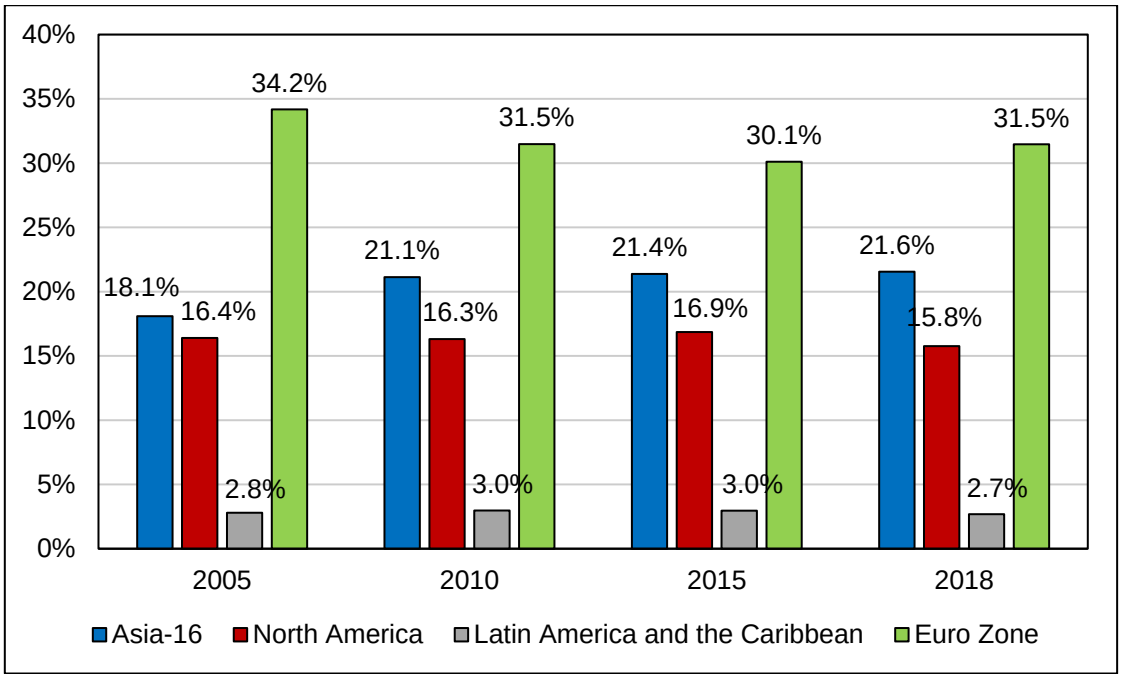
Note: North America is composed of the USA and Canada. Mexico is included in LAC.
Source: International Trade Centre – ITC (2020). Compiled for this study.

Figure 18
Share of region in world manufacturing exports in 2001 and 2018 (in %)



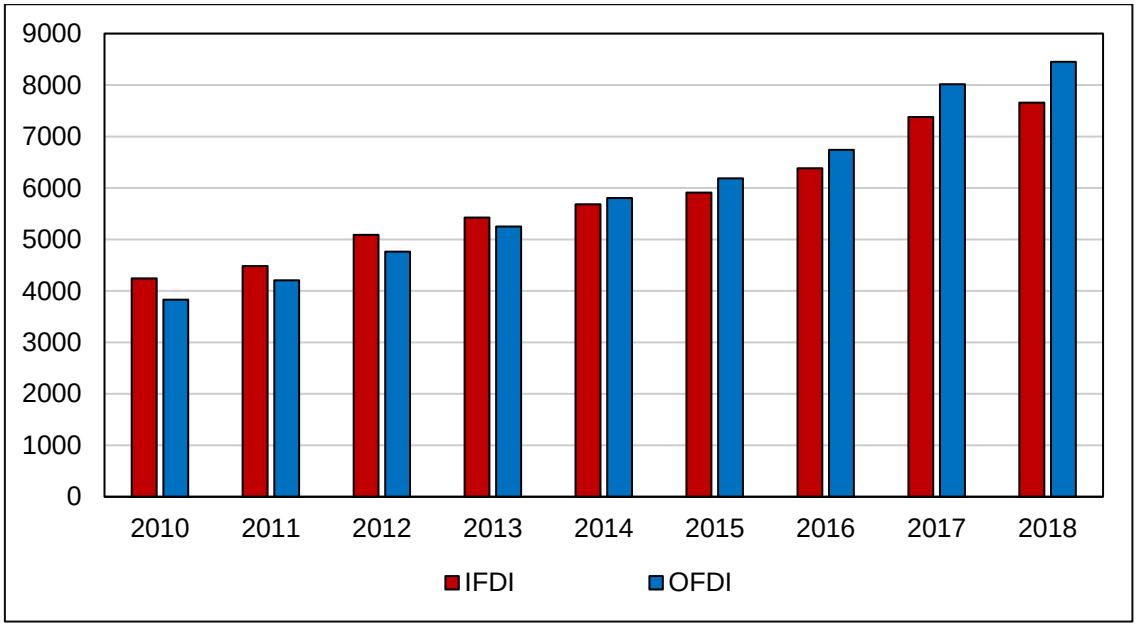
Note: North America is composed of the USA and Canada. Mexico is included in LAC.
Source: World Trade Organization – WTO (2020). Compiled for this study.

Figure 19
Share of regions in world trade in services in 2005, 2010, 2015 and 2018 (in %)



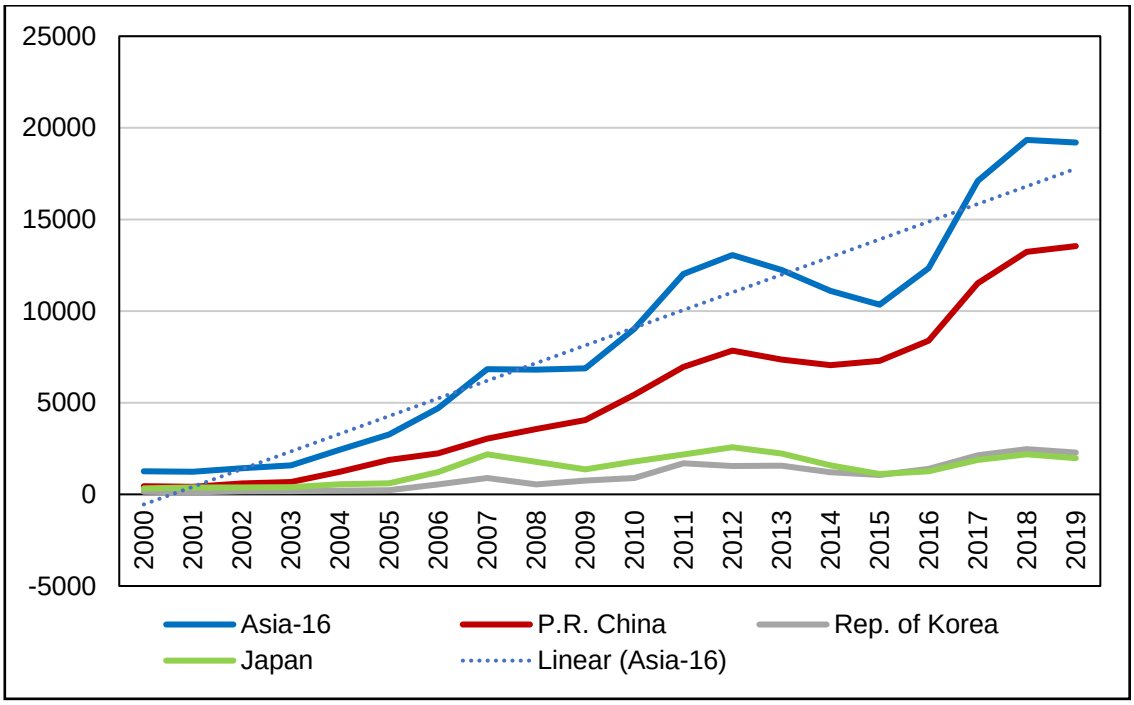
Note: North America is composed of the USA and Canada. Mexico is included in LAC.
Source: World Trade Organization – WTO (2020). Compiled for this study.

Figure 20
IFDI and OFDI stocks to and from Asia-16 economies (in billions of US$)



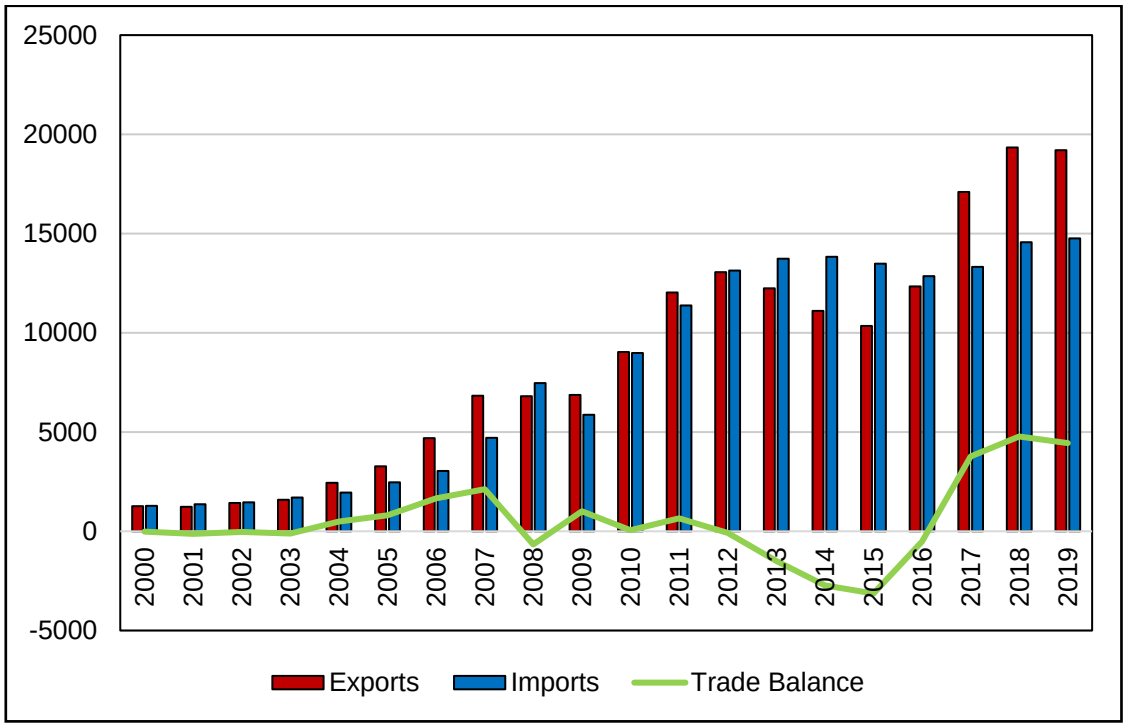
Source: UNCTAD (2020). Compiled for this study.

Figure 21
Peruvian exports to selected regions and countries 2000-2019 (in millions of US$)



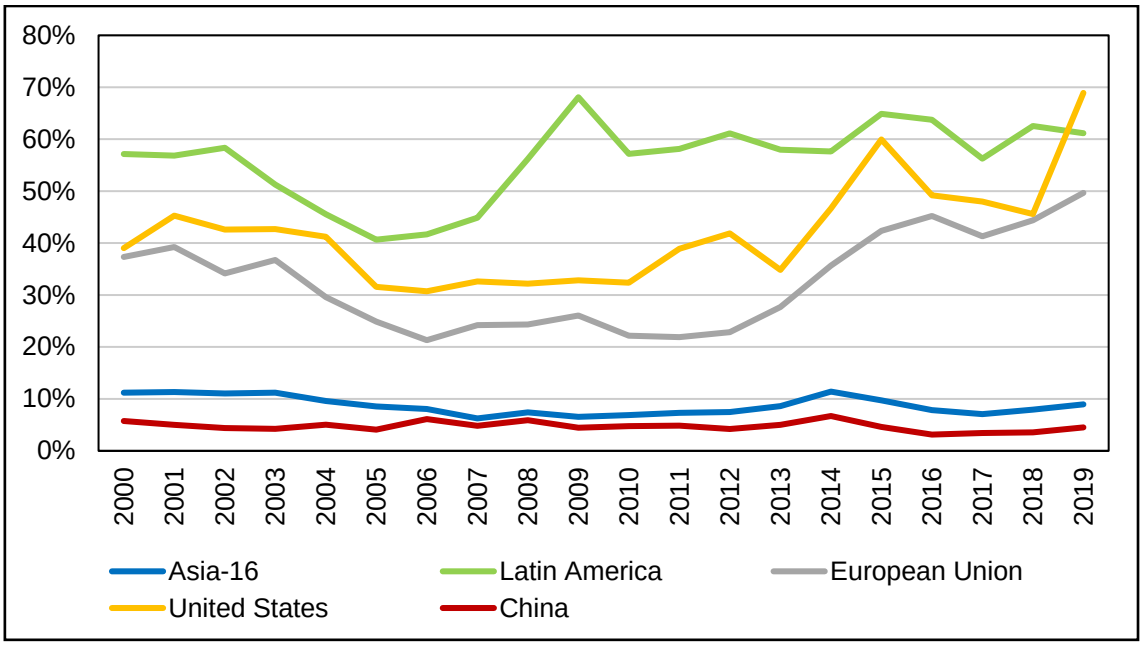
Source: Adex Data Trade (2020). Compiled for this study.

Figure 22
Peruvian trade balance with Asia-Pacific 2000-2019 (in millions of US$)



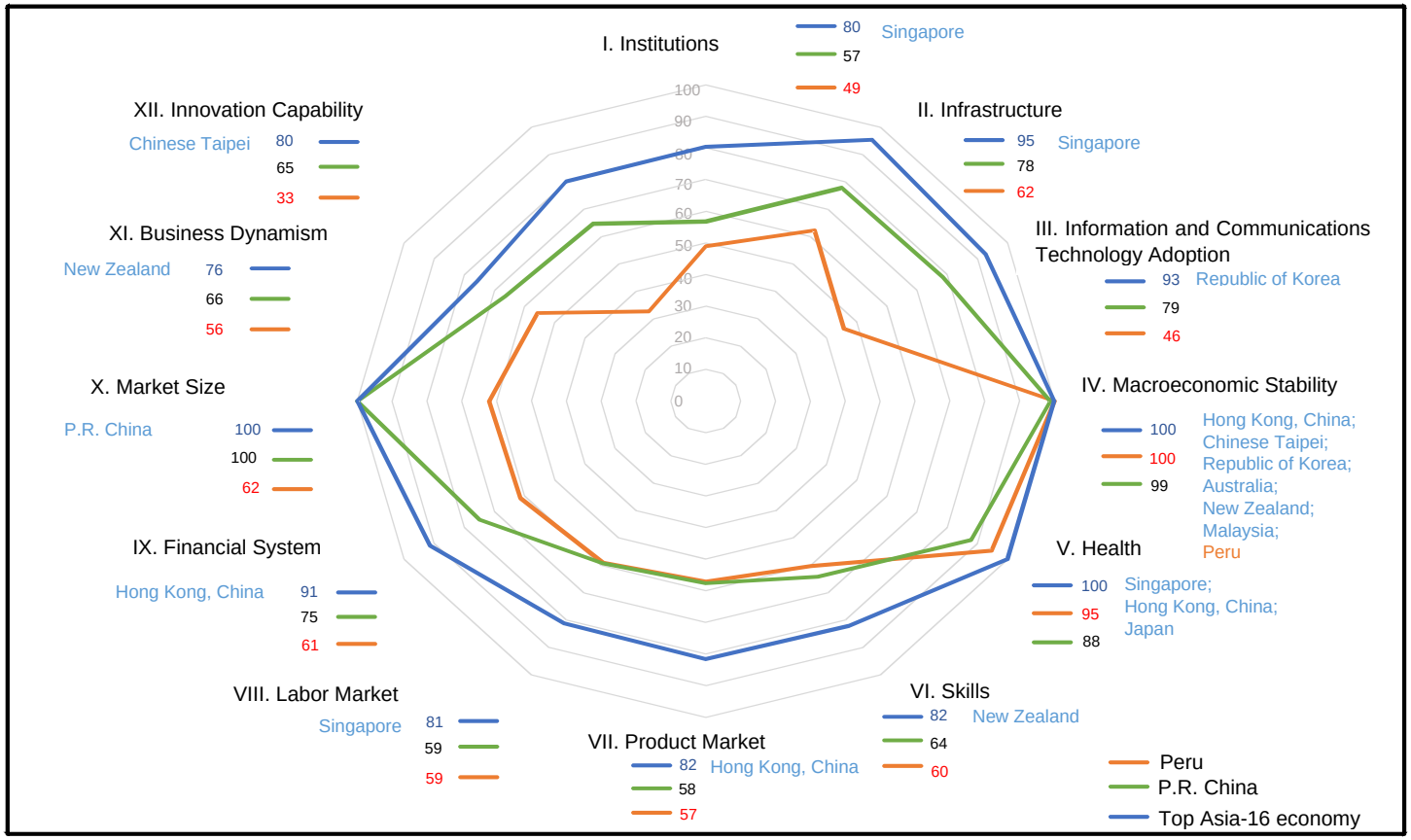
Source: Adex Data Trade (2020). Compiled for this study.

Figure 23
Share of non-traditional Peruvian exports in trade with its main trading partners
2000-2019 (in %)



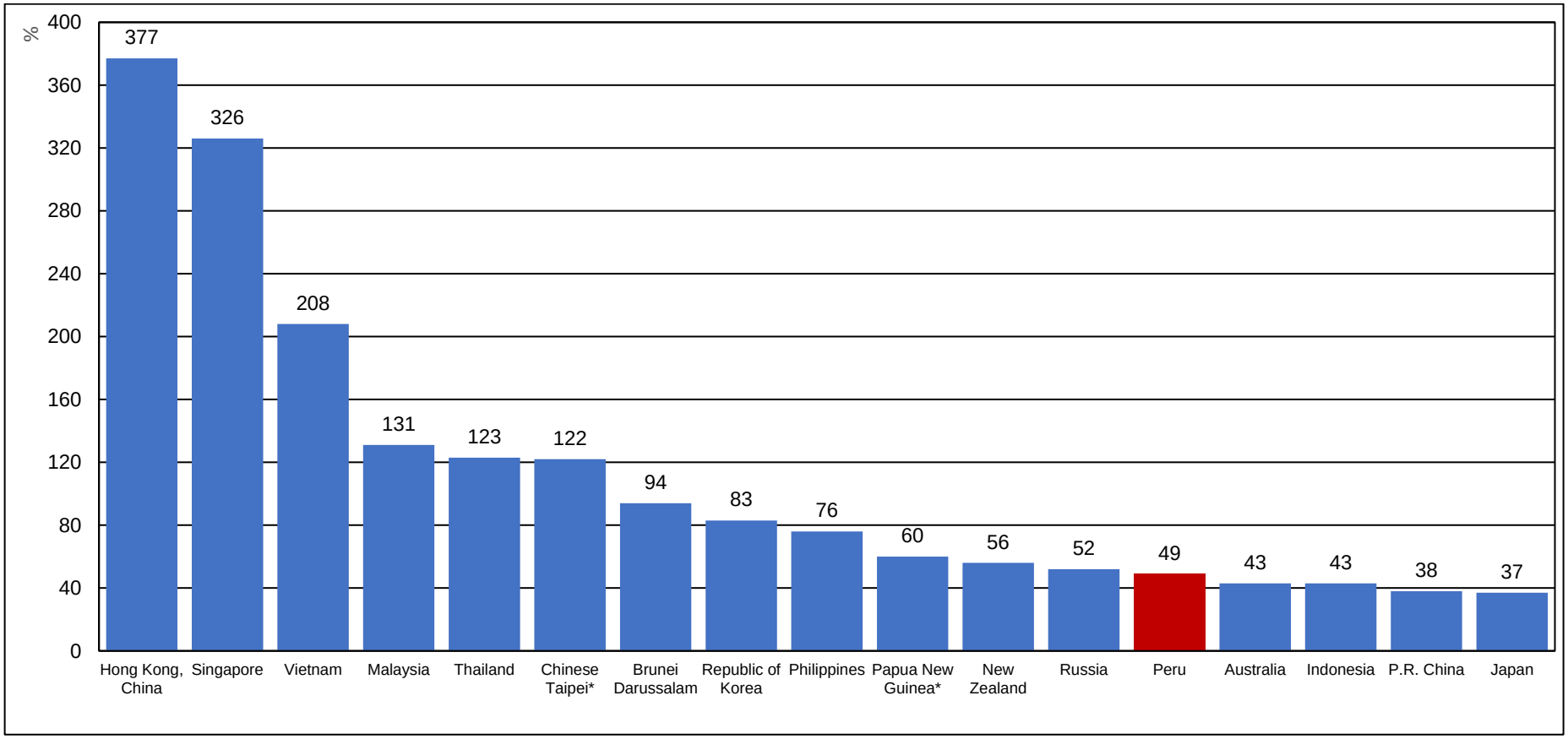
Source: Adex Data Trade (2020). Compiled for this study.

Figure 24
Comparison between Peru, People's Republic of China, and the most competitive economy in Asia-16
by pillars of the Global Competitiveness Index 2019



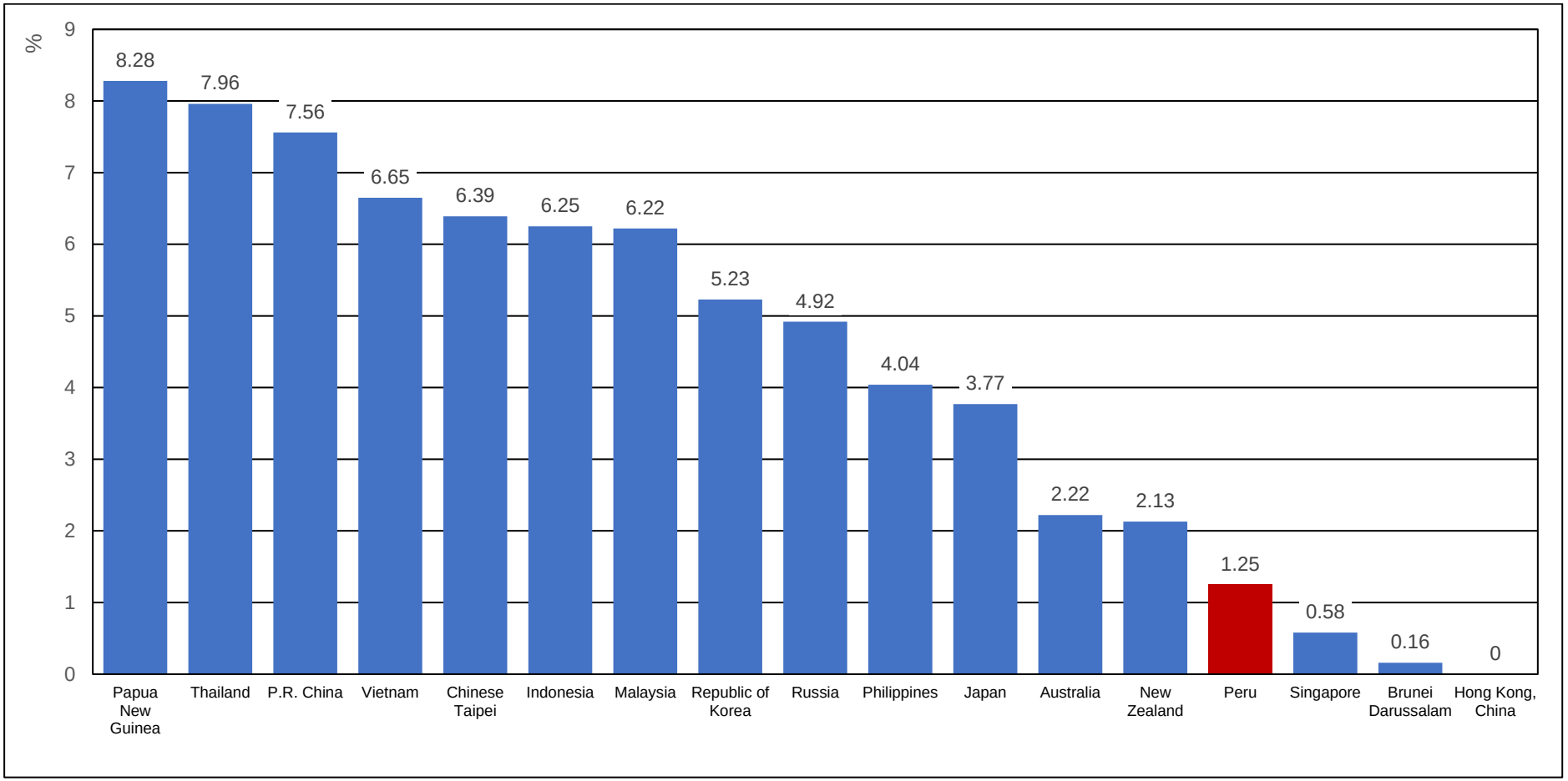
Note: Peru is compared with a benchmark in Asia-16, that is, the economy that reaches the highest competitiveness score in this region in the corresponding pillar and, therefore, is considered as a reference for Peru. The competitiveness index scores range from 1 to 100, the closer an economy is to 100, the more competitive it is in a given pillar. For the sake of the comparison, the graph features the scores and names of the Asian-16 benchmark, Peru and the People's Republic of China in each pillar of the index.
Source: Schwab (2019). Compiled for this study.

Figure 25
Trade openness index in Asia-16 economies and Peru in 2018 (trade as a % of GDP)



Note: The sum of exports and imports in goods and services is calculated as a percentage of GDP.
Source: World Bank (2020). In the case of Chinese Taipei, a source from this economy was used, Directorate-General of Budget Accounting and Statistics (2020), and the data for Papua New Guinea was retrieved from APEC (2020). Compiled for this study.

Figure 26
Average tariff in Asia-16 economies and Peru in 2018 (in %)



Note: The data displayed for New Zealand; Malaysia and Thailand are from 2017, 2016 and 2015, respectively.
Source: World Bank (2020) and International Trade Administration of the United States (2019). Compiled for this study.

Annex 2: Tables

Table 1
Labor productivity: average annual growth in Asia-16 economies of and Peru
1990-2018 (in %)

Economy	Average annual growth rate (1990-2018)
P.R. China	**8.52**
Vietnam	4.62
Thailand	3.31
Republic of Korea	3.30
Chinese Taipei	3.27
Papua New Guinea	3.10
Indonesia	3.01
Malaysia	2.59
Hong Kong, China	2.32
Singapore	2.21
Philippines	2.12
Peru	**1.91**
Australia	1.31
New Zealand	0.92
Russia	0.84
Japan	0.73
Brunei Darussalam	-1.13

Source: The Conference Board (2019) and World Bank (2020). Compiled for this study.

Table 2
Top 10 destinations of FDI (stock) in 1980, 2000 and 2018 (in billions of US$)

Economies	Stock 1980	Position 1980	Stock 2000	Position 2000	Stock 2018	Position 2018
United States	83.0	2	2,783.2	1	7,464.7	1
Hong Kong, China	177.8	1	435.4	4	1,997.2	2
United Kingdom	63.0	3	439.5	3	1,890.4	3
Netherlands	24.3	9	243.7	6	1,673.8	4
P.R. China	1.1	46	193.3	8	1,627.7	5
Singapore	5.4	17	110.6	15	1,481.0	6
Switzerland - Liechtenstein	N/A	-	101.6	16	1,062.8	7
Germany	N/A	-	470.9	2	939.0	8
Ireland	35.4	6	127.1	11	909.5	9
Canada	54.2	4	325.0	5	894.0	10

Source: UNCTAD (2020a). Compiled for this study.

Table 3
Top 10 sources of FDI (stock) in 1981, 2000 and 2018 (in billions of US$)

Economies	Stock 1981	Position 1981	Stock 2000	Position 2000	Stock 2018	Position 2018
United States	228.3	1	2,694.0	1	6,474.7	1
Netherlands	48.6	3	305.5	7	2,427.3	2
P.R. China	0.0	46	27.8	22	1,938.9	3
Hong Kong, China	0.2	33	379.3	5	1,870.1	4
United Kingdom	85.7	2	940.2	2	1,696.5	5
Japan	24.5	8	278.4	8	1,665.2	6
Germany	N/A	-	483.9	3	1,645.4	7
France	29.5	7	365.9	6	1,507.8	8
Canada	30.1	6	442.6	4	1,325.0	9
Switzerland - Liechtenstein	N/A	-	232.2	9	1,263.4	10

Source: UNCTAD (2020a). Compiled for this study.

Table 4

Economic corridors and other projects that catalyze and support connectivity within the framework of the Belt and Road Initiative

No.	Economic corridors and other projects
1	Addis Ababa-Djibouti economic corridor, including the development of industrial parks along the economic corridor
2	Agua Negra Pass International Tunnel
3	Baku-Tbilisi-Kars new railway line and Alyat free economic zone in Baku
4	Brunei-Guangxi economic corridor
5	China-Central Asia-West Asia economic corridor
6	China-Europe Land-Sea Express Line
7	China-Indochina Peninsula economic corridor, including Laos-China economic corridor
8	China-Kyrgyzstan-Uzbekistan International Highway
9	China-Laos-Thailand Railway Cooperation
10	China-Malaysia Qinzhou Industrial Park
11	China-Mongolia-Russia economic corridor
12	China-Myanmar economic corridor
13	China-Pakistan economic corridor
14	Eastern Economic Corridor in Thailand
15	Economic corridor in Greater Mekong Subregion
16	The EU Trans-European Transportation Networks
17	Europe-Caucasus-Asia International Transportation corridor and Trans Caspian International Transportation Route
18	The Industrial Park “Great Stone”
19	International North-South Transportation Corridor (INSTC)

No.	Economic corridors and other projects
20	The Lake Victoria-Mediterranean Sea Navigation Line-Linkage Project (VICMED)
21	The Lamu Port-South Sudan-Ethiopia Transportation corridor
22	Malaysia-China Kuantan Industrial Park
23	The Nepal-China Trans-Himalayan Multi-dimensional Connectivity Network, including Nepal-China cross-border railway
24	New Eurasian Land Bridge
25	The New International Land-Sea Trade Corridor of the China-Singapore (Chongqing) Demonstration Initiative on Strategic Connectivity
26	Northern Corridor Trade Route in Africa linking the maritime port of Mombasa to countries of the Great Lakes region of Africa and Trans-Africa Highway
27	North-South Passage Cairo-Capetown Pass-way
28	The Port of Piraeus
29	Port Sudan-Ethiopia Railway Connectivity
30	Regional Comprehensive economic corridors in Indonesia
31	The Suez Canal Economic Zone
32	Transcontinental shipment of cargo using the capacities of the Northern Sea Route
33	Transoceanic fiber optic cable
34	“Two Corridors and One Belt” Framework
35	Uzbekistan-Tajikistan-China International Highway

Source: Leaders' Roundtable of the 2nd Belt and Road Forum for International Cooperation (2019).

Table 5
Countries that have signed cooperation agreements in the framework of the Belt and Road Initiative (by continents)

Europe		Asia		Oceania	Africa		America
Albania	Poland	Afghanistan	Oman	Cook Island	Algeria	Mali	Antigua and Barbuda
Armenia	Portugal	Bahrain	Pakistan	Fiji	Angola	Mauritania	Barbados
Austria	Romania	Bangladesh	Palestine	Kiribati	Benin	Morocco	Bolivia
Azerbaijan	Russia	Bhutan	Philippines	Micronesia	Burundi	Mozambique	Chile
Belarus	Serbia	Brunei	Qatar	New Zealand	Cameroon	Namibia	Costa Rica
Bosnia and Herzegovina	Slovakia	Cambodia	Republic of Korea	Niue	Cape Verde	Niger	Cuba
Bulgaria	Slovenia	East Timor	Saudi Arabia	Papua New Guinea	Chad	Nigeria	Dominica
Croatia	Turkey	Indonesia	Singapore	Samoa	Comoros	Republic of Congo	Dominican Republic
Cyprus	Ukraine	Iran	Sri Lanka	Solomon Islands	Djibouti	Rwanda	Ecuador
Czech Republic		Iraq	Syria	Tonga	Egypt	Senegal	El Salvador
Estonia		Israel	Tajikistan	Vanuatu	Equatorial Guinea	Seychelles	Grenada
Georgia		Jordan	Thailand		Ethiopia	Sierra Leone	Guyana
Greece		Kazakhstan	Turkmenistan		Gabon	Somalia	Jamaica
Hungary		Kuwait	United Arab Emirates		Gambia	South Africa	Panama
Italy		Kyrgyzstan	Uzbekistan		Ghana	South Sudan	Peru
Latvia		Laos	Vietnam		Guinea	Sudan	Suriname
Lithuania		Lebanon	Yemen		Ivory Coast	Tanzania	Trinidad and Tobago
Luxembourg		Malaysia			Kenya	Togo	Uruguay
Macedonia		Maldives			Lesotho	Tunisia	Venezuela
Malta		Mongolia			Liberia	Uganda	
Moldova		Myanmar			Libya	Zambia	
Montenegro		Nepal			Madagascar	Zimbabwe	
Total: 31		**Total: 39**		**Total: 11**	**Total: 44**		**Total: 19**

Note: Alphabetical order. Consulted on October 20, 2020.
Source: Office of the Leading Group for the Belt and Road Initiative (2020). Compiled for this study.

Table 6
South America – China trade by country in 2018 (in billions of US$ and in %)

Countries	Total trade	Share (%)
Brazil	98.9	46.8
Chile	42.8	20.3
Peru	23.3	11.0
Argentina	16.3	7.7
Colombia	14.6	6.9
Ecuador	5.8	2.8
Paraguay	3.8	1.8
Uruguay	3.2	1.5
Bolivia	2.5	1.2
Total	**211.3**	**100**

Note: No data available for Venezuela.
Source: Statistics Division of the Department of Economic Affairs of the United Nations – UN Comtrade (2020). Compiled for this study.

Table 7
Asia-Pacific exports to the world in 2001 and 2018 (in billions of US$)

Economy	2001	Share (2001)	2018	Share (2018)	Multiplication
P.R. China	266.1	15.7%	2,494.2	36.2%	9.4
Japan	403.3	23.8%	738.2	10.7%	1.8
Rep. of Korea	150.4	8.9%	605.2	8.8%	4.0
Hong Kong, China	191.1	11.3%	569.1	8.3%	3.0
Russia	99.9	5.9%	449.3	6.5%	4.5
Singapore	121.8	7.2%	411.7	6.0%	3.4
Chinese Taipei	122.9	7.3%	335.8	4.9%	2.7
Australia	63.3	3.7%	253.8	3.7%	4.0
Thailand	64.9	3.8%	249.8	3.6%	3.8
Malaysia	88.0	5.2%	247.3	3.6%	2.8
Vietnam	15.0	0.9%	243.0	3.5%	16.2
Indonesia	56.3	3.3%	180.2	2.6%	3.2
Philippines	32.2	1.9%	67.5	1.0%	2.1
New Zealand	13.7	0.8%	39.8	0.6%	2.9
Brunei Darussalam	3.5	0.2%	6.5	0.1%	1.9
Papua New Guinea	1.8	0.1%	-	-	-
Asia-16 total	**1,694.2**	**100.0%**	**6.891.5**	**100.0%**	**4.1**

Note: No data available for Papua New Guinea in 2018.
Source: International Trade Centre – ITC (2020). Compiled for this study.

Table 8
Asia-Pacific trade within the region and with the world in 2001 and 2018
(in billions of US$ and in %)

	2001	2018
Trade within Asia-16	1,657.3	7,283.9
Asia-16 trade with the world	3,193.2	13,116.5
Share of intraregional trade	**51.9%**	**55.5%**

Source: International Trade Centre – ITC (2020). Compiled for this study.

Table 9
Share and average growth rate of Peruvian exports to selected regions and countries
2000-2019 (in millions of US$ and in %)

Economy / Region	2000	Share (2000)	2019	Share (2019)	Average growth rate
Asia-16	**1,263**	**18.4%**	**19,199**	**41.6%**	**15.4%**
P.R. China	443	6.4%	13,546	29.4%	19.7%
European Union	928	13.5%	5,709	12.4%	10.0%
Latin America and the Caribbean	1,142	16.6%	6,474	14.0%	9.6%
United States	1,902	27.7%	5,690	12.3%	5.9%
Others	1,631	23.8%	9,037	19.6%	9.4%
World	**6,866**	**100.0%**	**46,109**	**100.0%**	**10.5%**

Source: Adex Data Trade (2020). Compiled for this study.

Table 10
Peruvian exports to the Asia-Pacific region in 2000 and 2019
(in millions of US$ and share %)

No.	Economy	2000	Share (2000)	2019	Share (2019)	Growth rate
1	P.R. China	443	35.1%	13,546	70.6%	20%
2	Rep. of Korea	138	10.9%	2,277	11.9%	16%
3	Japan	325	25.8%	1,975	10.3%	10%
4	Russia	19	1.5%	211	1.1%	14%
5	Philippines	39	3.1%	211	1.1%	9%
6	Chinese Taipei	97	7.6%	202	1.0%	4%
7	Thailand	75	5.9%	192	1.0%	5%
8	Hong Kong, China	21	1.7%	149	0.8%	11%
9	Vietnam	4	0.3%	141	0.7%	20%
10	Malaysia	22	1.8%	102	0.5%	8%
11	Australia	40	3.1%	92	0.5%	5%
12	Indonesia	34	2.7%	60	0.3%	3%
13	New Zealand	2	0.2%	27	0.1%	15%
14	Singapore	4	0.3%	15	0.1%	8%
15	Brunei Darussalam	0	0.0%	0	0.0%	-11%
16	Papua New Guinea	0	0.0%	0	0.0%	-100%
	Asia-16 total	**1,263**	**100.0%**	**19,199**	**100.0%**	**15%**

Note: Ordered by the column “2019”.
Source: Adex Data Trade (2020). Compiled for this study.

Table 11
Sectoral composition of Peruvian exports to Asia-Pacific in 2000 and 2019
(in millions of US$ and share %)

Sector	2000	Share (2000)	2019	Share (2019)
TOTAL EXPORTS	**1,263**	**100.0%**	**19,199**	**100.0%**
Total traditional	**1,121**	**88.8%**	**17,478**	**91.0%**
Mining	440	34.8%	15,209	79.2%
Fishing	593	47.0%	1,461	7.6%
Oil and natural gas	71	5.6%	754	3.9%
Agriculture	17	1.3%	55	0.3%
Total non-traditional	**142**	**11.2%**	**1,720**	**9.0%**
Fishing	44	3.5%	790	4.1%
Livestock and agro industries	13	1.1%	638	3.3%
Timber	3	0.3%	60	0.3%
Steelmaking and metallurgy	27	2.2%	58	0.3%
Chemical	6	0.5%	52	0.3%
Textile	36	2.8%	35	0.2%
Garments	7	0.5%	32	0.2%
Non-metal mining	2	0.1%	25	0.1%
Metalworking	1	0.1%	14	0.1%
Others	2	0.1%	17	0.1%

Note: Ordered by column “2019”.
Source: Adex Data Trade (2020). Compiled for this study.

Table 12
Peruvian mining exports, copper and its main products in 2000 and 2019
(in millions of US$ and share %)

	2000	World share (2000)	Asia-16 share (2000)	2019	World share (2019)	Asia-16 share (2019)
World	**3,209**			**26,494**		
Copper	930			13,948		
Concentrated	141			12,192		
Cathodes	739			1,620		
Anodes	0			84		
Asia-16	**440**	**14%**		**15,211**	**57%**	
Copper	110	12%		11,693	84%	
Concentrated	68	49%		10,481	86%	
Cathodes	40	5%		1,092	67%	
Anodes	0	0%		81	96%	
P.R. China	**86**	**3%**	**19%**	**11,642**	**44%**	**77%**
Copper	43	5%	39%	9,318	67%	80%
Concentrated	32	23%	47%	8,318	68%	79%
Cathodes	10	1%	24%	952	59%	87%
Anodes	0	0%	0%	46	55%	57%

Note: The column “World Share” shows the share of Asia-16 and the People's Republic of China in the total exports to the world. The column “Asia-16 Share” presents the Chinese share in the total exported to that group. The Table is ordered by column “2019.”
Source: Adex Data Trade (2020). Compiled for this study.

Table 13
Sectoral composition of Peruvian exports to the People's Republic of China
in 2000 and 2019 (in millions of US$ and share %)

Sector	2000	Share (2000)	2019	Share (2019)
TOTAL EXPORTS	**443**	**100.0%**	**13,546**	**100.0%**
Total traditional	**417**	**94.2%**	**12,934**	**95.5%**
Mining	86	19.4%	11,642	85.9%
Fishing	330	74.6%	1,167	8.6%
Oil and natural gas	0	0.0%	121	0.9%
Agriculture	1	0.3%	4	0.0%
Total non-traditional	**25**	**5.8%**	**611**	**4.5%**
Fishing	0	0.1%	314	2.3%
Livestock and agro industries	0	0.0%	192	1.4%
Timber	1	0.2%	51	0.4%
Textile	22	4.9%	21	0.2%
Chemical	0	0.1%	20	0.2%
Garments	0	0.0%	5	0.0%
Steelmaking and metallurgy	2	0.4%	5	0.0%
Metalworking	0	0.1%	1	0.0%
Non-metal mining	0	0.0%	1	0.0%
Others	0	0.0%	1	0.0%

Note: Ordered by column “2019”.
Source: Adex Data Trade (2020). Compiled for this study.

Table 14
Trade agreements of Peru with economies in the Asia-Pacific region

Status	Trading partner	Entry into force
In force	Singapore	Aug-09
	P.R. China	Mar-10
	Republic of Korea	Aug-11
	Thailand (Protocols)	Dec-11
	Japan	Mar-12
	Australia	Feb-20
Signed	CPTPP (Australia, Chile, Mexico, Canada, New Zealand, Brunei, Malaysia, Japan, Singapore and Vietnam)	
Under negotiation	Pacific Alliance with Associated States (New Zealand, Australia, Canada and Singapore)	
	Upgrading with P.R. China	

Note: Consulted on March 31, 2020.
Source: Ministry of Foreign Trade and Tourism - MINCETUR (2020). Compiled for this study.

Table 15
Classification of Asia-16 economies and Peru according to income level in 2018
(GNI per capita, Atlas method)

Economy	US$	Classification
Singapore	58,770	High
Australia	53,190	
Hong Kong, China	50,310	
Japan	41,340	
New Zealand	40,820	
Brunei Darussalam	31,020	
Republic of Korea	30,600	
Chinese Taipei	25,501	
Malaysia	10,460	Upper middle
Russia	10,230	
P.R. China	9,470	
Thailand	6,610	
Peru	**6,530**	
Indonesia	3,840	Lower middle
Philippines	3,830	
Papua New Guinea	2,530	
Vietnam	2,400	

Note: In the case of Chinese Taipei, the source is APEC (2020), which is based on sources from that economy.
Source: World Bank (2020). Compiled for this study.

Table 16
Global Competitiveness Index 2019: Positions of Asia-16 economies and Peru in the global index

Economy	Position in the Global Index
Singapore	1
Hong Kong, China	3
Japan	5
Chinese Taipei	11
Republic of Korea	13
Australia	16
New Zealand	19
Malaysia	27
P.R. China	28
Thailand	40
Russia	43
Indonesia	50
Brunei Darussalam	56
Philippines	63
Peru	**65**
Vietnam	67

Note: The position in the ranking is determined based on 141 economies.
Source: Schwab (2019). Compiled for this study.

Table 17
Global Competitiveness Index 2019: “Infrastructure” pillar. Positions of Asia-16 economies and Peru in the ranking

Economy	Infrastructure
Singapore	1
Hong Kong, China	3
Japan	4
Republic of Korea	6
Chinese Taipei	16
Australia	29
Malaysia	35
P.R. China	36
New Zealand	46
Russia	50
Brunei Darussalam	58
Thailand	71
Indonesia	72
Vietnam	77
Peru	**87**
Philippines	96

Economy	Transportation
Singapore	1
Hong Kong, China	3
Japan	4
Republic of Korea	5
Chinese Taipei	13
P.R. China	24
Malaysia	28
Australia	38
Russia	49
Thailand	53
Indonesia	55
New Zealand	57
Vietnam	66
Brunei Darussalam	77
Peru	**96**
Philippines	102

Note: The position in the ranking is determined based on 141 economies.
Source: Schwab (2019). Compiled for this study.

Table 18
Global Competitiveness Index 2019: Transportation by road, air and sea. Positions of Asia-16 economies and Peru in the ranking

Economy	Road transportation
Singapore	1
Republic of Korea	9
Japan	20
Australia	22
P.R. China	24
Hong Kong, China	30
Chinese Taipei	33
New Zealand	45
Thailand	49
Brunei Darussalam	58
Russia	65
Malaysia	85
Indonesia	85
Vietnam	103
Peru	**111**
Philippines	120

Economy	Air transportation
Japan	1
Hong Kong, China	2
Singapore	3
Republic of Korea	7
Australia	9
Thailand	15
Indonesia	16
Malaysia	18
P.R. China	21
Chinese Taipei	22
Russia	24
New Zealand	37
Vietnam	39
Philippines	40
Peru	**65**
Brunei Darussalam	83

Economy	Sea transportation
Singapore	1
Hong Kong, China	3
Republic of Korea	4
Malaysia	6
P.R. China	11
Japan	13
Chinese Taipei	15
Vietnam	32
Indonesia	39
Russia	42
Thailand	44
Australia	48
Peru	**52**
New Zealand	56
Philippines	71
Brunei Darussalam	85

Note: The position in the ranking is determined based on 141 economies (road and air) and 108 (sea).
Source: Schwab (2019). Compiled for this study.

Table 19
Global Competitiveness Index 2019: “Skills,” “ICT Adoption” and “Innovation Capability” pillars.
Positions of Asia-16 economies and Peru in the ranking

Economy	Skills
New Zealand	10
Australia	13
Singapore	19
Hong Kong, China	20
Chinese Taipei	23
Republic of Korea	27
Japan	28
Malaysia	30
Russia	54
Brunei Darussalam	59
P.R. China	64
Indonesia	65
Philippines	67
Thailand	73
Peru	**81**
Vietnam	93

Economy	ICT Adoption
Republic of Korea	1
Hong Kong, China	3
Singapore	5
Japan	6
Chinese Taipei	11
P.R. China	18
New Zealand	21
Russia	22
Brunei Darussalam	26
Australia	29
Malaysia	33
Vietnam	41
Thailand	62
Indonesia	71
Philippines	88
Peru	**98**

Economy	Innovation Capability
Chinese Taipei	4
Republic of Korea	5
Japan	7
Singapore	13
Australia	18
P.R. China	24
Hong Kong, China	26
New Zealand	27
Malaysia	30
Russia	32
Thailand	50
Brunei Darussalam	51
Philippines	71
Indonesia	74
Vietnam	76
Peru	**90**

Note: The position in the ranking is determined based on 141 economies.
Source: Schwab (2019). Compiled for this study.

Table 20
Global Competitiveness Index 2019: “Macroeconomic Stability,” “Institutions” and “Business Dynamism”
Positions of Asia-16 economies and Peru in the ranking

Economy	Macroeconomic Stability
Hong Kong, China	1
Chinese Taipei	1
Republic of Korea	1
Australia	1
New Zealand	1
Malaysia	1
Peru	**1**
Singapore	38
P.R. China	39
Japan	42
Thailand	43
Russia	43
Indonesia	43
Philippines	43
Vietnam	64
Brunei Darussalam	85

Economy	Institutions
Singapore	2
New Zealand	3
Hong Kong, China	5
Australia	17
Japan	19
Chinese Taipei	24
Malaysia	24
Republic of Korea	26
Brunei Darussalam	50
Indonesia	51
P.R. China	56
Thailand	67
Russia	74
Philippines	87
Vietnam	89
Peru	**94**

Economy	Business Dynamism
New Zealand	13
Singapore	14
Hong Kong, China	15
Australia	16
Japan	17
Malaysia	18
Chinese Taipei	20
Thailand	21
Republic of Korea	25
Indonesia	29
P.R. China	36
Philippines	43
Russia	53
Brunei Darussalam	62
Vietnam	89
Peru	**96**

Note: The position in the ranking is determined based on 141 economies.
Source: Schwab (2019). Compiled for this study.

Table 21
Logistic Performance Index 2018:
Positions of Asia-16 economies and Peru in the ranking

Economy	Position in the ranking
Japan	5
Singapore	7
Hong Kong, China	12
New Zealand	15
Australia	18
Republic of Korea	25
P.R. China	26
Chinese Taipei	27
Thailand	32
Vietnam	39
Malaysia	41
Indonesia	46
Philippines	60
Russia	75
Brunei Darussalam	80
Peru	**83**
Papua New Guinea	148

Note: The position in the ranking is determined based on 160 economies.
Source: World Bank (2018). Compiled for this study.

Table 22
Labor productivity: levels in 1990 and 2018
(in constant 2011 PPP dollars)

Economy	1990	2018
Singapore	81,337	153,412
Brunei Darussalam	199,059	143,071
Hong Kong, China	63,838	124,132
Chinese Taipei	43,078	109,451
Australia	71,701	104,677
Japan	65,725	81,219
Republic of Korea	31,021	79,647
New Zealand	58,138	75,817
Malaysia	32,077	67,295
Russia	45,577	58,166
Thailand	13,548	34,870
P.R. China	3,055	32,718
Indonesia	11,860	28,037
Peru	**15,645**	**27,094**
Philippines	12,582	23,145
Vietnam	3,550	13,152
Papua New Guinea	5,251	12,721

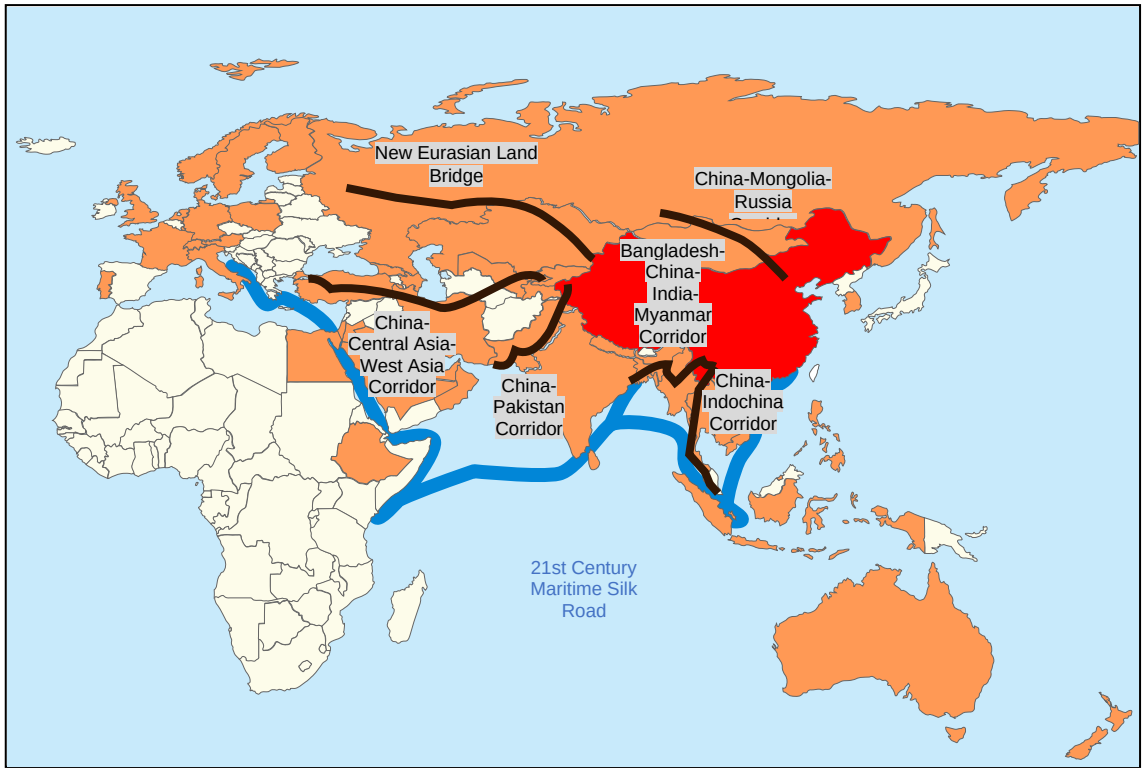
Note: Productivity per person employed, or GDP per person employed, represents the GDP per unit of work. The output is measured as “value-added,” which refers to the total production minus the value of intermediate goods. The data for Brunei Darussalam and Papua New Guinea was calculated by dividing GDP in constant 2011 PPP dollars (according to the World Bank) by the employment estimated by the World Labor Organization (retrieved from APEC, 2020).
Source: Compiled for this study based on the Conference Board (2019) and APEC (2020).

Annex 3: Maps

Map 1
Main maritime and land routes in the framework of the Belt and Road Initiative

Note: Non-official Map.
Source: Adapted from Wong et al. (2017) based on Wikimedia Commons and PwC proprietary research. The port icon was retrieved from geotatah (www.flaticon.com) and includes modification. It also takes as a reference the project of the International Logistics course of Professor Lei Zhao of Tsinghua University.

Map 2
Original economic corridors of the Belt and Road Initiative

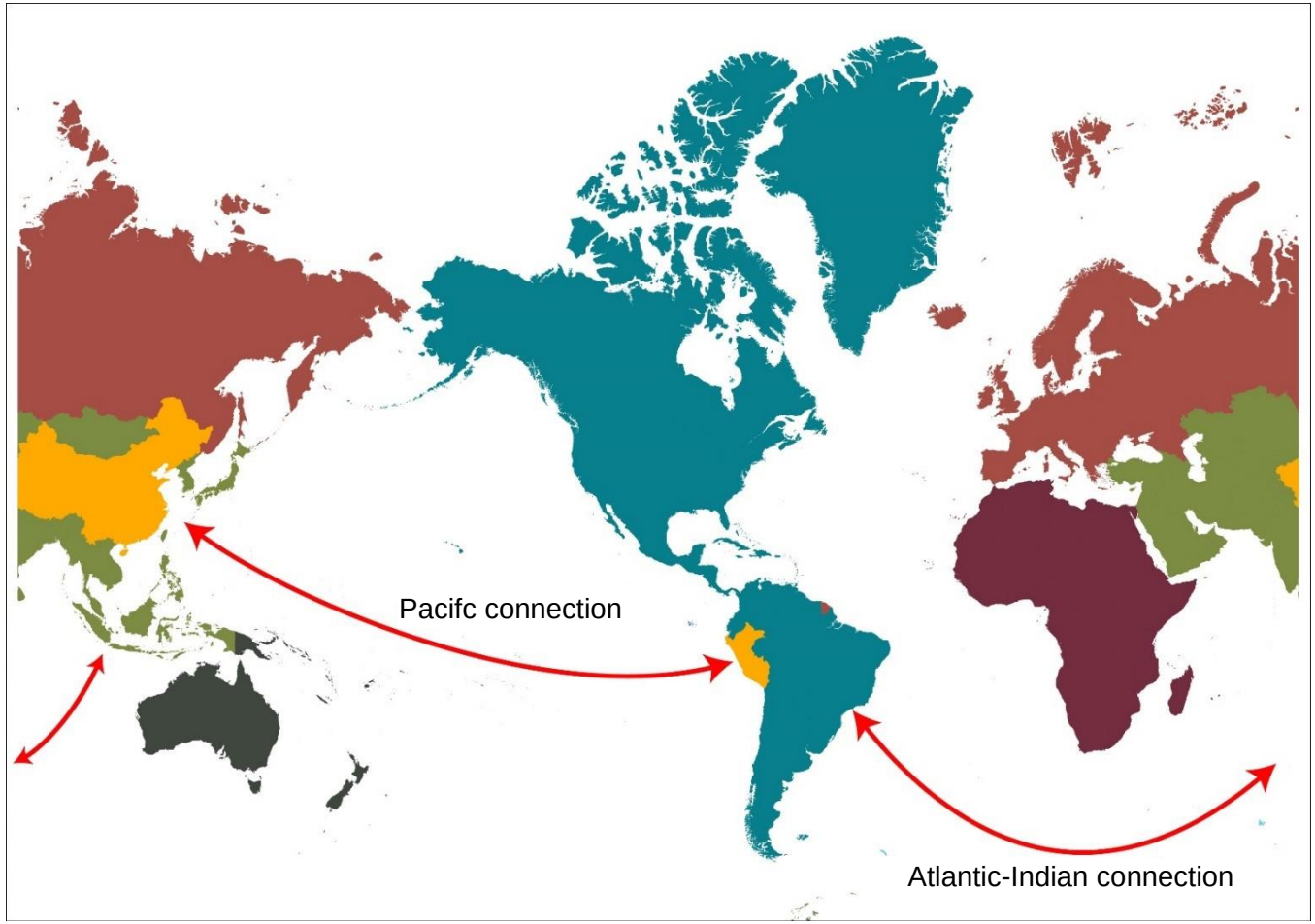


Note: Non-official Map. Wikimedia Commons marks AIIB and China members in orange in red.
Corridor names are based on NDRC, MFA & MOFCOM (2015).
Source: Wikimedia Commons

Map 3
Latin American countries participating in Belt and Road Initiative

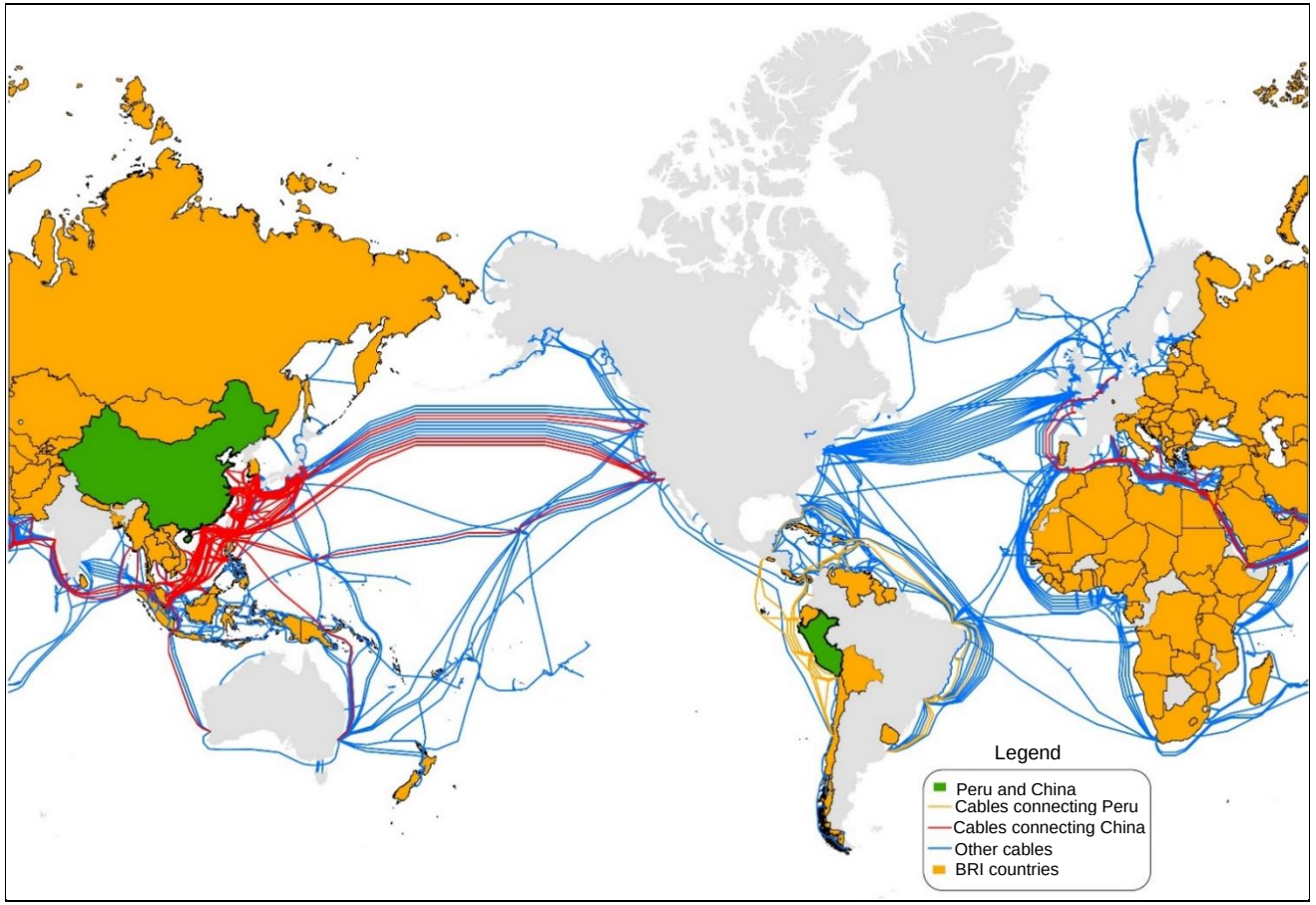
Source: Office of the Leading Group for the Belt and Road Initiative (2020). Consulted on October 20, 2020. Prepared for this study.

Map 4
South America – Asia-Pacific connectivity: The potential role of Peru



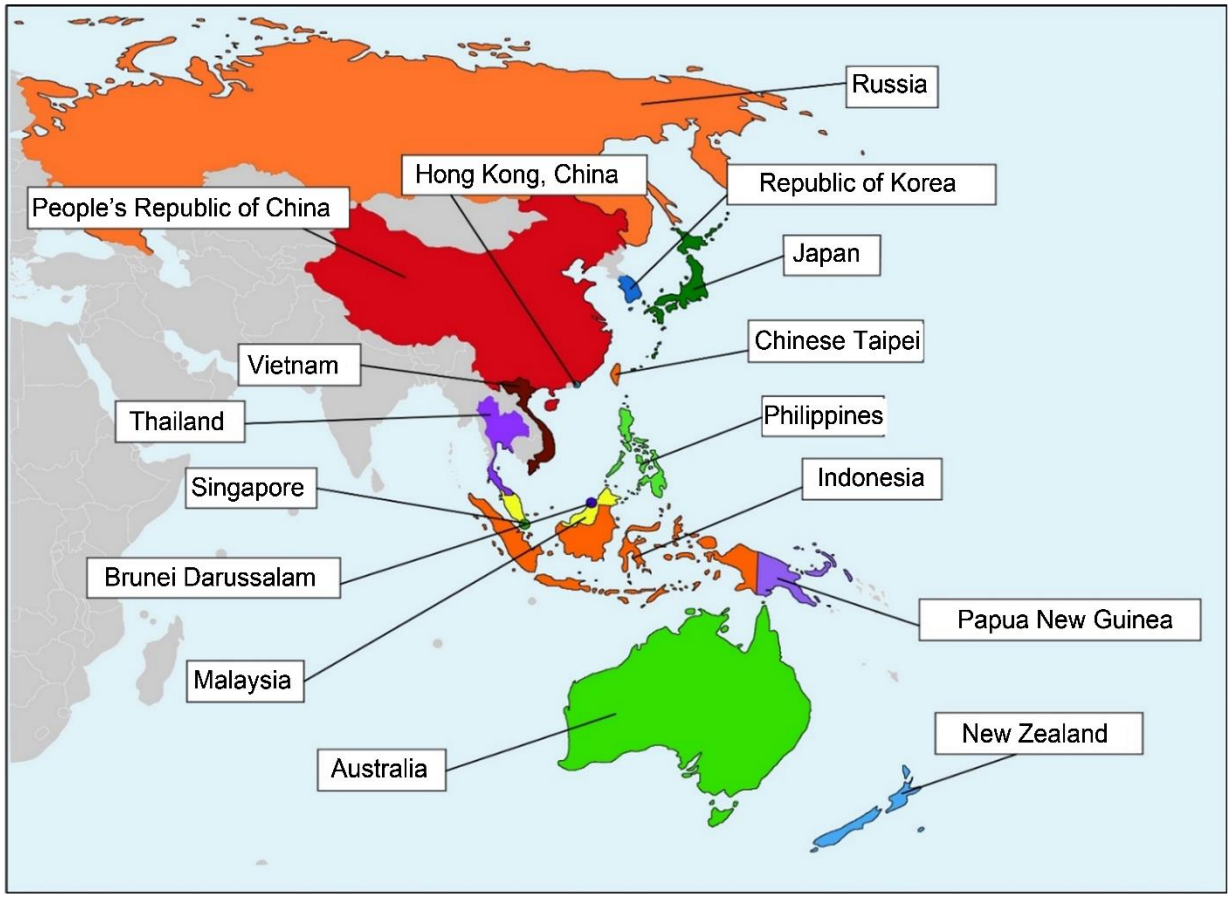
Source: Adapted from Barceló (2010).

Map 5
Transcontinental digital connectivity



Note: Countries that have signed cooperation agreements in the framework of the Belt and Road Initiative have been identified based on the Office of the Leading Group for the Belt and Road Initiative (2020).
Source: Telegeography (2019) and adapted from Huang (2017). Prepared for this study.

Map 6
Asia-16: Economies from Asia and Oceania in the Pacific Basin members of APEC



Note: Asia-16 is a group built for the purposes of the analysis of the present study.
We use the names of the economies as they appear in APEC.
Source: Prepared for this study.