

Regional Economic Development of the PRC through the Data of the World Economic Statistics

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Abstract

The article analyzes the results of a forecast on the socio-economic development of Chinese regions made ten years ago in a collective monograph by the Institute of the Far East of the Russian Academy of Sciences. These results are compared with data from various countries in terms of gross domestic product (GDP) and GDP per capita. Based on statistical data from the National Bureau of Statistics (NBS) of China for 2022, it was determined that China's GDP ranks first globally in terms of purchasing power parity (PPP) and second in terms of the dollar exchange rate. More than half of China's GDP continues to be concentrated in the coastal regions, which host the main "growth poles" of the Chinese economy: the Beijing – Tianjin – Hebei region, the Yangtze River Delta (encompassing Shanghai, northern Zhejiang, and southern Jiangsu), and the Pearl River Delta (southern Guangdong, including the Shenzhen and Zhuhai free economic zones).

According to GDP figures at the dollar exchange rate, not only Guangdong but also Jiangsu has surpassed Russia. Overall, in terms of GDP, most of China's coastal regions have reached the level of Eastern European countries and Portugal.

Over the past decade, the gap in gross regional product (GRP) between the coastal regions and the central and western regions has significantly decreased. Most of China's provinces now achieve GRP levels of \$4-8 trillion per year (or \$615-1.230 billion), surpassing the GDP figures of most countries worldwide. However, the gap between the coastal regions and the northeastern provinces (Heilongjiang, Jilin, and Liaoning) has widened. The GRP per capita in these three northeastern provinces is now lower than in the six central provinces.

To stimulate economic development in the western and central regions, as well as in the Northeast of China, the One Belt, One Road initiative was launched in 2013. This initiative aims not only to enhance the foreign economic relations of these lagging territories but also to ensure their accelerated growth by fostering new "growth poles" within these regions. The establishment of such poles is expected to drive faster development in these areas, thereby narrowing the economic gap between them and the more advanced coastal regions.

Keywords

Chinese regions, gross domestic product per capita, gross regional product, coastal areas, “pole of growth”, “One Belt, One Road” initiative

JEL codes: F

Introduction**Forecast of regional economic development for 2020**

In 2015, the Center for Economic and Social Research of the Institute of the Far East of the Russian Academy of Sciences (CESRC RAS) published a collective monograph forecasting the regional socio-economic development of the People’s Republic of China (PRC) for 2020. According to the plans to quadruple GDP by 2020 compared to 2000, it was projected that GDP would reach approximately 40 trillion yuan in 2020 (equivalent to \$12.5 trillion at the 2010 exchange rate). However, by 2010, China’s GDP had already reached 41.3 trillion yuan, surpassing the forecast for 2020 and achieving fourfold growth relative to 2000 figures. At the 18th National Congress of the Chinese Communist Party (CPC) in 2012, these earlier plans were revised. New targets for 2020 were set, aiming to double GDP relative to 2010 levels, reaching 80 trillion yuan. Additionally, the goal for GDP per capita was set at approximately 60,000 yuan – equivalent to \$10,000 at the 2013 exchange rate or \$18,750 based on the projected revaluation of the yuan. This revised forecast reflected both China’s rapid economic growth and the government’s efforts to recalibrate its development strategy (Ostrovskii 2020: 46-47, 65-66; Ostrovskii 2015b: 650).

In the 2014 forecast, the State Council of the People’s Republic of China proposed dividing the country into four regions: coastal territories, inland areas, western regions, and the Northeast (Ostrovskii 2020: 46-47, 65-66; Ostrovskii 2015b: 650). According to the 2020 National Population Census, most of China’s population resides in the highly developed coastal areas. The western region, comprising 12 administrative units, and the six inland provinces are less densely populated, while the Northeast has experienced a population decline of 10 million over the past decade.

The data from the 7th National Population Census offers a compelling picture of changes in population distribution across China. Currently, two coastal provinces – Guangdong and Shandong – each have populations exceeding 100 million. Nine provinces have populations between 50 and 100 million, while 17 administrative units, including provinces, centrally governed cities, and autonomous regions, report populations ranging from 10 to 50 million. In contrast, three provinces and autonomous regions have populations of fewer than 10 million.

Notably, 35.09% of China’s total population is concentrated in the five most populous provinces: Guangdong, Shandong, Henan, Sichuan, and Jiangsu. This concentration underscores the significant role of these regions in the nation’s demographic and economic landscape¹.

As in previous years, a significant portion of China’s population resides in the coastal provinces and the three centrally governed cities – Beijing, Shanghai, and Tianjin. These

1 第七次全国人口普查公报（第三号）(Communique of the 7th National Population Census (Part 3), 11.05.2021. URL: http://www.stats.gov.cn/tjsj/zxfb/202105/t20210510_1817179.html (accessed on 12.05.2021).

regions boast the highest gross regional product (GRP), per capita GRP, disposable income per capita, foreign trade volumes, and the number of higher and secondary specialized educational institutions. According to the 7th National Population Census (2020), the population distribution was as follows: eastern (coastal) provinces accounted for 39.93%, central provinces for 25.83%, western provinces for 27.12%, and the Northeast for 6.98%². Over the past decade, notable shifts in the territorial distribution of the population have occurred. The population proportions have increased significantly in all centrally governed cities, including Chongqing in the western region. The most substantial growth, however, was observed in Guangdong, a southern coastal province, which has surpassed Russia in terms of GRP. Guangdong's population, at 120 million in 2020, is comparable to Russia's population of 146 million. This dramatic growth highlights the province's economic dynamism and its role as a major driver of national development.

At the end of the 20th century, despite the exceptionally high rates of economic growth during the 1980s and 1990s, the vast majority of Chinese provinces and autonomous regions, both in terms of gross regional product (GRP) and GRP per capita, remained among the poorest regions of the “third world.” At that time, GRP volumes in most provinces did not exceed \$100 million, with the exception of three leading coastal provinces – Guangdong, Jiangsu, and Shandong. Moreover, GRP per capita was less than \$1,000 (Ostrovskii 2015b: 652-653).

By the end of the first decade of the 21st century, China's provinces and autonomous regions had significantly enhanced their economic potential, thanks to sustained economic growth. The GRP of most administrative units ranged from \$100 million to \$500 million, except for seven western provinces, autonomous regions, and the coastal province of Hainan, where GRP remained below \$100 million.

By 2010, China's GDP per capita had risen to 29,992 yuan (approximately \$4,430). In the centrally governed cities of Beijing, Shanghai, and Tianjin, as well as in five leading coastal provinces – Guangdong, Jiangsu, Zhejiang, Fujian, and Shandong – the coastal northeastern province of Liaoning, and the Inner Mongolia Autonomous Region, GRP per capita exceeded the national average (China Statistical... 2011: 44, 55). However, even with these improvements, a per capita GDP of roughly \$4,430 corresponded, by global standards, to that of a developing country.

The leadership of the People's Republic of China anticipated that in the 2010s, continued economic development would reduce regional disparities. This vision included increasing the economic share of the western provinces, driven by the development of extractive and energy industries, which would, in turn, support the manufacturing industry in the eastern coastal regions. By 2020, it was envisioned that some Chinese provinces would be comparable to leading developed countries in terms of GDP, while others would achieve levels exceeding the average for developing countries (Ostrovskii 2015b: 650-654).

Despite such force majeure circumstances as the COVID-19 pandemic, in 2019-2021, China was able to maintain high growth rates overall. From 2014 to 2021, China's average annual GDP growth rate was 6%, which was noticeably lower than in the previous period.

2 The coastal region of China (East) includes three cities of central subordination – Beijing, Shanghai and Tianjin and seven provinces – Hebei, Shandong, Jiangsu, Zhejiang, Fujian, Guangdong, Hainan; the central region (Center) includes six provinces – Shanxi, Henan, Hubei, Anhui, Hunan, Jiangxi; the western region (West) is the city of central subordination of Chongqing, the provinces of Gansu, Guizhou, Qinghai, Shaanxi, Sichuan, Yunnan and five autonomous regions – Guangxi Zhuang, Inner Mongolia, Ningxia Hui, Xinjiang Uygur and Tibet, to the Northeast three provinces – Liaoning, Jilin and Heilongjiang.

However, given the sharp decline in GDP growth in 2020 due to the COVID-19 pandemic, this indicator should be recognized as excellent. In 2021, GDP amounted to 114.4 trillion yuan (\$17.7 trillion) and 80,976 yuan (or \$12.556) per capita. In 2022, it rose to 121.0 trillion yuan and 85,709 yuan (or \$12.754) per capita, and in 2023 – to 126.1 trillion yuan and 89,358 yuan (or \$12.950) per capita (World Bank 2023: 6; China Statistical... 2023: 6, 31; NBS of the People's Republic of China 2024).

In our study, the whole of China, in accordance with the proposals of Premier of the State Council of the People's Republic of China, Wen Jiabao, adopted at the session of the State Council in 2004, was divided into four regions: 1) the coastal (Primorsky) region; 2) the central region; 3) the Northeast of China; and 4) the western regions of China (Ostrovskii 2015a: 11; Ostrovskii and Shiganova 2015: 19-30). The authors of this framework projected that this division would help narrow the economic development gap between the leading coastal provinces and the rest of the country. By 2020, it was anticipated that some coastal provinces would rival developed countries in GDP, while others would achieve levels comparable to upper-middle-income developing countries.

According to a 2014 forecast for regional socio-economic development, GRP in the eastern coastal regions (excluding Hebei and Hainan provinces) was expected to surpass 8 trillion yuan (over \$1 trillion) annually. Furthermore, it was predicted that the most economically advanced provinces – Guangdong and Jiangsu – would exceed Russia in GDP (Ostrovskii 2015b: 654-655). This prediction was borne out in practice, highlighting the remarkable economic performance of these provinces.

Among the six central provinces, Henan Province was expected to take the leading place in terms of GDP, with projections exceeding 8 trillion yuan. Three less developed provinces – Anhui, Hubei, and Hunan – were estimated to produce a GDP ranging from 4 to 8 trillion yuan annually. The remaining two provinces, Shanxi and Jiangxi, which have the weakest resource bases, were projected to have annual GDP figures ranging from 800 billion to 4 trillion yuan by 2020 (Ostrovskii 2015b: 654-655).

The paper also highlighted that the Northeast of China was likely to develop at a level comparable to central China. Gross regional product (GRP) in this area was expected to range from 4 to 8 trillion yuan per year, driven by its industrial base, agricultural development, and planned growth rates (Ostrovskii 2015b: 655).

Overall, the implementation of the development program for the western regions of China significantly boosted infrastructure development in the previously economically underdeveloped interior regions of the country. In the early 2000s, large-scale infrastructure projects were initiated, such as the construction of the high-altitude railway to Tibet (Golmud-Lhasa), the world's largest Sanxia hydroelectric power station on the Yangtze River, and a major water diversion project transferring water from the Yangtze River to the Yellow River in northern China. In recent years, energy production in the western regions has intensified, with oil and natural gas production in Xinjiang, natural gas extraction in Shaanxi, Sichuan, Xinjiang, and Inner Mongolia, and coal mining in Xinjiang and Inner Mongolia. Additionally, mechanical engineering industries have developed in Chongqing and Sichuan. Infrastructure projects, including the construction of oil and gas pipelines from the western regions to the coastal provinces such as Guangdong, Jiangsu, and Shanghai, have also progressed. It was projected that the GRP of the leading territories in the western regions, similar to central China, could reach 4 to 8 trillion yuan by 2020. These leading regions were expected to attract other lagging territories with significant national minority populations, such as Tibet, Xinjiang, Yunnan, Guizhou, and others (Ostrovskii 2015b: 655).

The Results of the Socio-Economic Development of the Regions of the People's Republic of China in 2022

The forecast for the development of Chinese regions in 2020, made approximately ten years ago, yielded mixed results. On one hand, as predicted, the rapid development of several coastal territories was achieved, and the economies of certain central and western provinces and autonomous regions largely aligned with these projections. However, the economic performance of the provinces in Northeast China and some inland provinces fell noticeably short of expectations.

In 2022, China continued to have two cities of central subordination leading in terms of gross domestic product (GDP) per capita: Beijing (190.313 yuan) and Shanghai (179.907 yuan), equivalent to over \$26,700 per person. Meanwhile, the vast majority of regions in the People's Republic of China recorded a per capita GDP ranging from 60,000 to 180,000 yuan (\$9,000-27,000) per person (China Statistical... 2023: 21, 31).

Unfortunately, the COVID-19 pandemic rendered the 2020 data unrepresentative for several provinces, particularly Hubei in central China and some coastal regions. Consequently, data from 2022 were used to assess the accuracy of the forecasted economic development of China's regions. When comparing Chinese statistics to global benchmarks, the choice of metrics is critical. In economic theory, **the gross domestic product (GDP)** is the primary measure of a country's economy. To compare China's GDP with other countries, it can be converted into a common currency, such as the US dollar, using two methods:

1. Exchange Rate Conversion: calculating GDP based on the official exchange rate of the yuan to the US dollar.
2. Purchasing Power Parity (PPP): comparing consumer baskets in different countries at US domestic prices to assess purchasing power equivalence.

According to the World Bank, China's GDP at the current exchange rate for 2022 amounted to \$17.7 trillion (or \$12,556 per capita). In terms of purchasing power parity, it was \$32 trillion (or \$17,603 per capita) (World Bank 2024). For a country as large as China, the discrepancy between these two figures is relatively small. However, when comparing the cost of consumer baskets across different administrative units within China, significant discrepancies arise. It is important to note that although China is a politically unified large country, it is not unified in terms of natural, climatic, social, and economic conditions, nor in terms of business, banking, and financial interests. It is no coincidence that most foreign investments and foreign trade volumes are concentrated in China's coastal regions, where the necessary infrastructure was already developed in the twentieth century. According to the GSU of the People's Republic of China for 2022, the coastal regions accounted for approximately 79% of the volume of foreign trade and 75% of foreign investment (China Statistical... 2023: 16-17).

In the current conditions, significant additional work is required to recalculate the entire consumer basket for each administrative unit at US domestic prices in dollars. It should be noted that in practice, when purchasing consumer goods in Chinese stores, 10 yuan in Shanghai will buy fewer goods than in most other Chinese cities, not to mention county centers or rural stores. Therefore, in this study, to verify the results of a ten-year-old forecast, it seems logical to use the conversion rates of gross regional product (GRP) in yuan to US dollars at the current exchange rate for each administrative unit of the PRC.

In the report by CPC General Secretary Xi Jinping at the twentieth CPC Congress (October 2022), socio-economic development tasks were set for each of the four economic regions

of the People's Republic of China. For the lagging western regions, the goal was to reach a new level of socio-economic development; for the old industrial base of the Northeast, the task was to make a breakthrough; for the central regions, the aim was to promote the takeoff of economies in territories lacking competitive advantages to match the coastal regions; and for the most economically developed coastal regions, the goal was to continue modernization. Economic zones that contribute the lion's share of GDP were also identified: the central Beijing–Tianjin–Hebei zone, the Yangtze River Delta (Shanghai, southern Jiangsu, and northern Zhejiang), and the Zhujiang River Delta in southern Guangdong Province (XX National... 2022). Specifically, the gross regional product (GRP) of the central Beijing-Tianjin-Hebei zone amounted to 10.0 trillion yuan (8.3% of China's GDP), the Yangtze River zone (Shanghai, southern Jiangsu, and northern Zhejiang) reached 56.0 trillion yuan (46.5% of China's GDP), and the Zhujiang River Delta zone (Guangdong Province in southern China) accounted for 29 trillion yuan (24.1% of China's GDP). Thus, the three main economic development zones of the country together accounted for 77.9% of China's GDP – over 75% of the total volume of the Chinese economy (GSU of the People's Republic of China 2023: 3-4). As a result of the rapid development of these three main economic zones, three cities of central subordination – Beijing, Tianjin, and Shanghai – and three provinces – Guangdong, Jiangsu, and Zhejiang, which geographically encompass these zones, now have the best socio-economic indicators in the country, particularly in terms of GRP volume and GRP per capita.

An analysis of the results of the socio-economic development of Chinese regions allows us to assess the potential of Chinese administrative units in the future, at least until 2030, and gain a clearer understanding of the prospects for the development of the Chinese economy as a whole. In particular, the analysis of statistical indicators from the four Chinese economic regions and individual administrative units (provinces, autonomous regions, and cities of central subordination) conducted in this article provides insight into which territories are leaders and can drive the development of adjacent areas, and which are lagging behind, for which socio-economic development programs, similar to the development program for the western regions (西部大开发), should be prepared.

From 2000 to 2022, China's economic regions developed unevenly. As shown in Table 1 below, throughout the 21st century, the coastal regions have consistently held a leading position, collectively producing more than half of the country's total gross domestic product (GDP). The GRP indicators of all administrative units in this region have continued to grow, despite a decrease in its share of national GDP from 57.0% to 51.8% over the past 20 years. However, in absolute terms, the GRP of the region has increased 12.2 times (see Table 1).

Table 1. Changes in the GRP structure of China's economic regions in 2000-2022

Economic regions	2000		2009		2013		2022	
	trillion yu	%	trillion yu	%	trillion yu	%	trillion yu	%
Total for China	8.9	100	33.5	100	56.8	100	121.0	100
East	5.1	57.0	19.5	58.0	32.2	51.2	62.2	51.4
Centre	2.0	22.1	7.0	20.9	12.7	20.2	26.5	21.9
Northeast	0.97	10.9	3.0	9.1	5.4	8.6	5.8	4.8
West	0.89	10.0	4.0	12.0	12.6	20.0	26.5	21.9

Source: calculated by (China Statistical... 2001, 2004, 2010, 2014:13-14, 2022, 2023:31)

However, during the same period, the GRP of the central region increased 13.2 times, the western region 29.7 times, and the Northeast only 6 times. As a result, the share of the central region has remained unchanged over 20 years, the share of the western regions has grown significantly and now matches that of the central region, while the share of the Northeast has decreased substantially. Of course, the rapid regional development of the People's Republic of China was largely due to regional development programs. In particular, at the beginning of the 21st century, a program for the development of the western regions of China was introduced, followed by a program in 2005 for the restoration of the old industrial base of Northeast China, and in 2006, a program for the development of the central regions of China (Ostrovskii 2015a: 10). However, while the development programs for the western and central regions progressed relatively quickly, the Northeast developed more slowly. Specifically, over the past nine years, the region's GRP grew by only 0.4 trillion yuan. In some years, Liaoning Province – despite having seaports and favorable conditions for economic development – experienced negative growth rates, unlike other coastal provinces where GDP grew by 7–8% annually. Notably, in 2016, Liaoning's GRP growth was negative, declining by 2.5% (China Statistical... 2020).

At the initial stage of economic reform in China, the slogan “China has two wings: in the south – Shenzhen, in the north – Heihe” was popular. In the south, Shenzhen indeed demonstrated significant results. Shenzhen's GDP grew from 196.38 million yuan in 1979 to 2.692.71 billion yuan in 2019, an increase of more than 13,000 times over 40 years (Aganbegyan 2023: 131). In contrast, Heihe did not emerge as a leader in either Northeast China or Heilongjiang Province. To a large extent, the Northeast of China has become a lagging region, largely because the foreign economic factor – in the form of investment and foreign economic cooperation with Russia – has not played a significant role over the past 40 years.

Table 2 is of particular interest, as it shows the dynamics of changes in GRP per capita by regions of the People's Republic of China. In 2000, 2009, and 2013, two regions – the East and the Northeast – had a higher-than-average GRP per capita. At that time, the Northeast's GRP per capita was higher than that of the Central region. However, by 2022, the situation had changed in several ways. Firstly, GRP per capita in the central and western regions became higher than the national average, surpassing the Northeast. Secondly, the significant gap in per capita GRP between the West and the Center, compared to the Northeast and the national average, rapidly decreased. Thirdly, the GRP per capita in the coastal provinces remained significantly higher than the national average, as well as in other territories, as shown in Table 2 below.

When compared with global indicators, it turns out that the GRP of all coastal regions, including the cities of central subordination – Beijing, Shanghai, and Tianjin – is slightly higher than the GDP of Japan and Germany, the third and fourth largest world economies. The GRP of the central and western regions separately – \$3.8 trillion and \$3.78 trillion – falls short of Germany's GRP by \$0.4 trillion but exceeds the GDP of the United Kingdom by \$0.6 trillion. Meanwhile, the GRP of the Northeast, at \$0.86 trillion, is comparable to that of Turkey, which has a GRP of \$0.815 trillion (World Bank 2023) (see Table 1).

Over the past decade, there have been noticeable changes in GRP per capita indicators both for China as a whole and for its regions and individual administrative units (provinces, cities of central subordination, and autonomous regions). As of 2022, China's GRP based on purchasing power parity amounted to \$21.482, surpassing both the global aver-

age of \$20.693 and the GRP of countries comparable to China: Colombia (\$20.268), Brazil (\$17.827), Georgia (\$20.172), and equaling Thailand (\$20.679) (World Bank 2023) (see Table 2).

Table 2. Changes in the per capita GRP of the economic regions of the People's Republic of China in 2000-2022

Economic regions	2000		2009		2013		2022	
	yuan	US\$	yuan	US\$	yuan	US\$	yuan	US\$
Total for China	7100	851	25188	3704	41908	6759	85709	12556
East	11683	1407	40188	5910	62188	10030	109957	16362
Centre	5544	668	19702	2897	35274	5689	73105	10879
Northeast	9140	1101	28085	4130	49583	7997	60085	8941
West	2429	293	10375	1526	33890	5466	67087	9983

Source: calculated by (China Statistical... 2001, 2004, 2010, 2014:13-14, 2022, 2023: 31)

The GRP per capita figures for the central region and Northeast of China are more or less in line with the global average and with GRP at the current dollar exchange rate per capita in countries such as Russia, Costa Rica, Bulgaria, and Malaysia. Meanwhile, the Primorsky region's indicators for 2021 were slightly higher than those of Uruguay (\$17.685), Croatia (\$17.685), Poland (\$17.841), and slightly lower than those of Slovakia (\$21.392) and Latvia (\$21.148). The GRP per capita figures for the western region were comparable to those of countries like Serbia (\$9.230), Turkey (\$9.587), Mexico (\$9.926), and Brazil (\$7.519) (World Bank 2023) (see Table 2).

Thus, in 2021, China significantly surpassed the planned GDP figure of 80 trillion yuan, reaching a new milestone of 100 trillion yuan. In most administrative units, it was possible to exceed the fairly ambitious projected figure of \$10.000 per capita set at the XVIII CPC Congress in 2012. Moreover, China was able to surpass the global average GRP per capita of \$12.263 in 10 of the 32 administrative units, with Shandong Province slightly exceeding this figure at \$12.573.

It was expected that, with the continued development trends across China's four economic regions, the gap between them would narrow. Indeed, since 2013, the gap in GRP between the Primorsky region on one hand and the central and western regions on the other has somewhat decreased. However, during this period, the GRP growth rates of the three provinces in Northeast China were notably lower not only than those of the western region but also the central region. Specifically, between 2014 and 2021, the average annual GDP growth rate in Jilin and Heilongjiang provinces was 5.7%, and in Liaoning Province, it was just 1.9%. By comparison, China's national average was 6.0%, and most provinces and administrative regions had growth rates between 7-9% per year (China Statistical..., 2020, 2021, 2022, 2023). As a result, the gap in GRP between the Primorsky region and the Northeast widened from 6 times to 10.6 times between 2014 and 2021. In terms of per capita income, the Northeast lost its second-place position to the central region, as shown in Tables 1 and 2 above. Nevertheless, it should be noted that the average GRP per capita in both the central region and the Northeast still exceeded the national average for China. Let's now examine the situation for each of the economic regions separately.

Primorsky (coastal) Region

All indicators for the coastal provinces and cities of central subordination, with the exception of Hebei and Hainan provinces, were not only significantly higher than the national average, but also surpassed those of many other countries, including in terms of GRP per capita, as shown in Table 3 below.

Table 3. Gross regional product in the coastal regions of China in 2022

Provinces, GCP	GRP (trillion yuan)	Average annual growth rate in 2014-2022 (%)	Growth rates in 2022 (%)	GRP per capita (yuan)	Growth rates in 2022 (%)
China	121.0	6.0	3.0	85709	3.0
Beijing	4.161	5.6	0.7	190313	0.8
Tientsin	1.631	5.2	1.0	119235	1.8
Shanghai	4.465	5.8	2.1	179907	0.0
Guangdong	12.912	6.4	1.9	101905	1.7
Jiangsu	12.287	6.9	2.8	144390	2.5
Zhejiang	7.772	6.9	3.1	118496	2.2
Shandong	8.744	6.7	3.9	86093	3.9
Fujian	5.311	7.5	4.7	126829	4.3
Hebei	4.237	8.0	3.8	56995	4.1
Hainan	0.682	6.8	0.2	66602	-0.5

Source: calculated by (China Statistical... 2020, 2022, 2023: 31).

The forecast assumed that some of the coastal provinces, in terms of GDP, would be comparable to leading developed countries, with their GRP exceeding 8 trillion yuan. Specifically, the forecast predicted that Hebei would be comparable to South Korea, Shandong to Canada, Zhejiang to Australia, Guangdong to Spain, and Jiangsu to Russia (Ostrovskii 2015a: 10). In practice, however, only three of the six provinces – Guangdong, Jiangsu, and Shandong – were able to surpass the 8 trillion yuan mark (see Table 3 above). Guangdong Province has already surpassed Russia in terms of GRP, becoming comparable to Canada, Jiangsu has reached the level of both Russia and South Korea, and Shandong is now on par with Mexico. The provinces of Hebei and Fujian were able to reach only the GRP level of Poland, which is comparable within China to the GRP levels of the central-subordination cities, Beijing and Shanghai.

In terms of gross domestic product, two cities of central subordination stand out in the Primorsky region: Beijing, with 190.313 yuan (over 28 thousand dollars) per capita, and Shanghai, with 179.907 yuan (about 27 thousand dollars) per capita. Among the provinces in the Primorsky region, three surpassed the 100 thousand yuan per capita mark: Jiangsu with 144.390 yuan, Fujian with 126.829 yuan, and Zhejiang with 118.496 yuan. Meanwhile, in all provinces and cities of central subordination in the coastal regions, except for Hebei and Hainan, GRP per capita exceeded the national average. In terms of per capita GDP, Beijing can be compared to Slovenia, Shanghai to Portugal, Guangdong to Romania, Jiangsu to Slovakia, and Shandong to Russia (World Bank 2023). Thus, according to the main socio-economic development indicators, most coastal provinces in 2021 were comparable to the per capita GRP figures of many countries in Eastern Europe and Russia.

Central region

It is worth noting the significant successes of nearly all the provinces in the central region of China, with the exception of Shanxi. According to our forecasts, only Henan was expected to surpass the 4 trillion yuan mark by 2020. However, in practice, four out of the six provinces in the central region, including Henan, managed to exceed the 4 trillion yuan milestone. By the end of 2022, the GRP of Henan province reached 6.135 trillion yuan (912 billion dollars), Hubei – 5.373 trillion yuan, Hunan – 4.867 trillion yuan, and Anhui – 4.505 trillion yuan (see Table 4). As a result, the GRP of Henan province was comparable to that of Turkey, Anhui to Poland, Jiangxi to Nigeria, and Shanxi to Pakistan (World Bank 2023).

Table 4. Gross regional product in the coastal regions of China in 2022

Provinces	GRP (trillion yuan)	Average annual growth rate in 2014-2022 (%)	Growth rates in 2022 (%)	GRP per capita (yuan)	Growth rates in 2022 (%)
China	121.0	6.0	3.0	85709	3.0
Shanxi	2.564	5.3	4.4	73675	4.5
Anhui	4.505	7.6	3.5	73693	3.3
Jiangsu	3.207	8.0	4.7	70923	4.6
Henan	6.135	6.1	3.1	62106	3.5
Hubei	5.373	6.7	4.3	92059	3.4
Hunan	4.867	7.4	4.5	73597	4.8

Source: calculated by (China Statistical... 2020, 2022, 2023: 31).

In terms of per capita GRP, despite significant losses due to the COVID-19 pandemic, Hubei has emerged as a leader among the provinces of the central region, largely due to its advantageous geographical location in the heart of China. The Beijing–Guangzhou Railway runs north to south, the Yangtze River flows from west to east, and the capital, Wuhan, is strategically positioned at the crossroads of major transport routes. The GRP per capita in Hubei Province stands at 92,059 yuan, which is higher than the national average for China. However, similar indicators for all other provinces in the region are lower than the national average (see Table 4). Nonetheless, nearly all the provinces in the central region have made significant progress in their economic development. By this indicator, Henan Province is comparable to Serbia, Shanxi to Mexico, and Jiangxi to Kazakhstan (World Bank 2023). Overall, it can be concluded that the central provinces have made remarkable strides in recent years, and in terms of economic potential, they are gradually catching up to the leading provinces. Among them, Hubei stands out, leveraging its geographical advantages to remain the undisputed leader in the central region.

Northeast

The northeastern provinces of China have not met their forecasted economic targets. The combined GRP of the three provinces barely exceeded 200 billion yuan, and their share of China's total GRP has significantly diminished. The forecast had anticipated that the Northeast would develop to the level of the central region, with each province reaching

over 4 trillion yuan in GRP. However, the average annual GDP growth rates in these provinces were low, not only falling below the national average, but also ranking among the lowest in the country – especially in Liaoning Province. Despite Liaoning’s potential, given its coastal location, there were years when its GRP growth rate was as low as 2-3%, and in 2016, it even recorded a negative growth of -2.5%. As a result, the GRP figures for these provinces in 2022 remained low. The GRP of Liaoning is comparable to that of South Africa, Heilongjiang with Iran, and Jilin with Ukraine.

Similarly, the GRP per capita figures for these provinces were well below the national average of 85,709 yuan. For instance, Liaoning’s per capita GRP in dollar terms is comparable to Argentina, while Heilongjiang’s is closer to Thailand’s (World Bank 2023).

Table 5. Gross regional product in the coastal regions of China in 2022

Provinces	GRP (trillion yuan)	Average annual growth rate in 2014–2022 (%)	Growth rates in 2022 (%)	GRP per capita (yuan)	Growth rates in 2022 (%)
China	121.0	6.0	3.0	85709	3.0
Liaoning	2.898	3.0	2.1	68775	2.8
Jilin	1.307	4.9	-1.9	55347	-0.8
Heilongjiang	1.590	4.4	2.7	51096	3.9

Source: calculated by (China Statistical... 2020, 2022, 2023: 31).

Apparently, the main reason for this situation is the limited capacity to attract foreign capital and the relatively small volume of foreign trade in the region, especially when compared to the cities of central subordination, coastal provinces, and even other territories. According to the GSU of the People’s Republic of China, in 2022, the share of foreign trade in the Northeast accounted for only 2.9% of China’s total foreign trade, while foreign investment attracted to the region was just 3.6% of the national total. Most of these foreign investments were concentrated in Liaoning Province, which has the major seaport of Dalian (Chinese Statistical... 2022). Ten years ago, Northeast China had a higher GRP per capita than the central and western regions of the country. However, over the past decade, a clear trend has emerged: if the current economic growth rates continue, the provinces of the central and western regions are likely to surpass the northeastern provinces in the current five-year plan (2021–2025).

The Western Region

The western region of China, which covers over 70% of the country’s territory, has been of particular interest in terms of economic development. A forecast made in 2020 predicted that, due to rapid infrastructure development, certain western provinces – such as Shaanxi, Sichuan, Xinjiang, and Inner Mongolia – would experience significant economic growth. It was expected that by 2020, the leading regions in the West would be able to produce GRP exceeding 4 trillion yuan (Ostrovskii 2015b: 655). In practice, these expectations were partially met. The average annual GRP growth rate for most administrative units in the western region was higher than the national average, with the exception of Inner Mongolia, as shown in Table 6 below.

Table 6. Gross regional product in the coastal regions of China in 2022

Provinces	GRP (trillion yuan)	Average annual growth rate in 2014-2022 (%)	Growth rates in 2022 (%)	GRP per capita (yuan)	Growth rates in 2022 (%)
China	121.0	6.0	3.0	85709	3.0
Inner Mongolia	2.316	4.0	4.2	96474	4.2
Chongqing	2.913	7.9	2.6	90663	2.5
Sichuan	5.675	7.2	2.9	67777	2.9
Guangxi	2.631	6.7	2.9	52164	2.6
Guizhou	2.016	8.7	1.2	52321	1.2
Yunnan	2.895	7.4	4.3	61716	4.7
Tibet	0.213	9.1	1.1	58438	1.4
Shanxi	3.277	6.5	4.3	82864	4.3
Gansu	1.120	6.2	4.5	44908	4.7
Qinghai	0.361	6.0	2.3	60724	2.4
Ningxia	0.510	6.8	4.0	69781	3.5
Xinjiang	1.774	6.9	3.2	68552	3.3

Source: calculated by (China Statistical... 2020, 2022, 2023: 31).

In 2022, the GRP of Sichuan Province reached 5.675 trillion yuan. Five provinces and autonomous regions – Inner Mongolia, Guangxi, Chongqing, Yunnan, and Shaanxi – were able to exceed the relatively modest threshold of 2 trillion yuan. In terms of GDP, Guangxi is comparable to Malaysia and the Philippines, Chongqing and Yunnan to South Africa and Nigeria, Xinjiang to New Zealand, Gansu to Kazakhstan, and Shaanxi to Israel (World Bank 2023) (see Table 6).

The leading regions in the western part of China should be followed by other underdeveloped areas, many of which have large populations of national minorities, such as Tibet, Xinjiang, and Guizhou. Over recent years, active efforts to attract foreign investment have sparked significant development in Xinjiang and Yunnan. As a result, there has been a noticeable increase in GRP per capita across many western provinces. In fact, the GRP per capita of Chongqing and Inner Mongolia surpassed the national average in 2022, while Shaanxi is approaching this benchmark. However, other provinces and autonomous regions are still lagging behind. Specifically, in terms of GRP per capita, Guangxi – at 52.164 yuan (7.762 dollars) – is comparable to Brazil, Sichuan to Mexico, Ningxia and Xinjiang to Turkey, and Gansu to Peru (see Table 6).

Prospects for the Socio-Economic Development of the Regions of the People's Republic of China

To stimulate the development of lagging regions, Chinese President Xi Jinping launched the Belt and Road Initiative in 2013. This initiative not only allows other countries to take loans for infrastructure projects, but also aims to integrate underdeveloped, landlocked areas of China into global economic processes through various infrastructure projects. While pri-

marily intended to boost foreign economic relations, the Belt and Road Initiative also serves as a tool for promoting socio-economic development within China's less-developed regions.

At the XIX Congress of the Communist Party of China (October 2017), Xi Jinping emphasized that the Belt and Road Initiative was not only about strengthening China's external economic ties, but also about fostering the socio-economic development of various parts of the country. The initiative aimed to establish several international corridors for economic cooperation between China and foreign countries. These include:

1. A continental bridge between Asia and Europe along the ancient trade route that connected the Qin and Roman Empires.
2. A maritime route from the eastern shores of China to the southern seas, reaching the shores of East Africa.
3. International corridors for economic cooperation between China and Russia, traversing Inner Mongolia and the northeastern provinces.
4. A route through Xinjiang and the Khunjerab Pass connecting to Pakistan and Iran.
5. Corridor along the Mekong River, through the Vientiane–Kunming railway, and ports in the Guangxi Zhuang Autonomous Region, facilitating trade with ASEAN countries.
6. A route through Yunnan Province extending to Myanmar, Bangladesh, and India (Ostrovskii 2020: 382-387).

To implement the Belt and Road Initiative, China plans to utilize almost its entire territory, linking individual provinces and autonomous regions with various countries through infrastructure projects. In the northwest, three provinces – Shaanxi, Qinghai, and Gansu – and two autonomous regions, Xinjiang and Ningxia, have been designated as key areas for the initiative. Among these, Xinjiang is expected to become a central hub for the Silk Road Economic Belt project. Notably, in November 2017, a cooperation agreement was signed between Urumqi and Shenzhen, with the goal of transforming Urumqi into an international trade center, modeled after Shenzhen's success.

In Northeast China, the focus is on developing Inner Mongolia, due to its strategic location adjacent to Russia and Mongolia, as well as addressing the logistical challenges faced by the northeastern provinces. To integrate Northeast China into the Belt and Road Initiative, two key bridges were built across the Amur River: the Heihe-Blagoveshchensk automobile bridge and the Nizhneleninskoye-Tongjiang railway bridge. These projects enable the use of Russian territory as a transit zone for goods produced in the northeast, which will be transported by rail to Russian Pacific ports as part of transport projects like Vladivostok Primorye-1 and Zarubino/Primorye-2.

In Southwestern China, the Kunming-Vientiane railway has been completed, which, along with the route along the Mekong River, will greatly enhance regional development. As part of the Belt and Road Initiative, China aims to leverage its trade advantages with ASEAN countries, accelerate the development of the Gulf of Tonkin region, and expand key ports in Guangxi. The initiative will also focus on enhancing border crossings with Vietnam, Laos, and Myanmar in Yunnan Province.

In the coastal regions of China, special emphasis will be placed on Fujian Province and its capital, Fuzhou, as critical transport hubs for the Maritime Silk Road of the 21st Century. This initiative will accelerate the economic growth of Fujian by enhancing its role in international trade and logistics. Additionally, Hainan Province has seen significant development in recent years, fueled by local regulations aimed at attracting foreign investment. In 2021 alone, Hainan received \$45.27 billion in foreign investment, which accounted for about a quarter of all foreign investments in China that year (China Statistical... 2022). Meanwhile, Hebei Province,

which has lagged behind other coastal regions, has been the focus of a new growth strategy. The Beijing–Tianjin–Hebei growth zone is now home to a rapidly developing Xiong’an Free Economic Zone, modeled after Shenzhen. This initiative aims to establish a new administrative center and create a “development pole” that will drive growth not only in Hebei but also in the neighboring northern provinces of Shandong and Shanxi.

In the interior of China, economic growth will be supported by the development of key cities along the middle Yangtze River in Hubei, Hunan, and Jiangxi provinces, as well as in the Chengdu–Chongqing zone in Sichuan Province. These cities will serve as hubs for the creation of infrastructure clusters, which will help drive the regional economy forward. A key component of this development will be the Chongqing–Duisburg Eurasian Railway corridor, which will pass through Xinjiang and Kazakhstan. This corridor, along with the coordination of customs posts and the China–Europe container train, will facilitate the flow of goods between China and Europe, strengthening economic ties across the region.

As we can see, the Belt and Road Initiative is not only designed to enhance China’s foreign economic relations but will also play a pivotal role in the rapid development of various provinces, administrative districts, and cities, including those that are distant from seaports. The initiative will significantly boost the GRP (Gross Regional Product) of these regions, promoting balanced economic growth across the country.

Currently, China has three major “growth poles”: 1) the Beijing–Tianjin–Hebei region (京津冀); 2) the Pearl River Delta (south of Guangdong Province); and 3) the Yangtze River Delta (including Shanghai, northern Zhejiang, and southern Jiangsu). These regions ensure the economic success of three centrally administered cities – Beijing, Shanghai, and Tianjin – and three provinces: Guangdong, Jiangsu, and Zhejiang. The new “growth poles” created as a result of the Belt and Road Initiative will establish new zones of rapid economic development and contribute to a significant increase in both total GDP and per capita GDP. This will support the “dual circulation” (双循环) strategy of the Chinese economy, which aims to position China as a global leader by the middle of the 21st century.

References

- Aganbegyan AG (2023) About the socio-economic problems of China’s development and its interaction with Russia. In: G.A. Tosunyan (ed.) *China: yesterday, today, tomorrow*. Proceedings of the meeting on November 19, 2022, 115–60. URL: https://rannks.ru/upload/iblock/1a3/sbornik_15_China_05062023_c.pdf
- Ostrovskii AV (2015a) Introduction to the book “China: the economy of the regions”. In: Ostrovskii AV (Ed), Kamennov PB (Comp) *China: economics of regions*. Institute of the Far East of the Russian Academy of Sciences, Moscow, 7–18. URL: https://elibrary.ru/download/elibrary_28827741_76622140.pdf
- Ostrovskii AV (2015b) Conclusion to the book “China: the economy of the regions”. In: Ostrovskii AV (Ed), Kamennov PB (Comp) *China: economics of regions*. Institute of the Far East of the Russian Academy of Sciences, Moscow, 649–56. URL: https://elibrary.ru/download/elibrary_28827758_31764962.pdf
- Ostrovskii AV (2020) *China is on its path to economic superpower*. Institute of the Far East of the Russian Academy of Sciences: IBA Publishing House, LLC, Moscow. URL: https://elibrary.ru/download/elibrary_44089369_62243783.pdf
- Ostrovskii AV, Shiganova YuM (2015) The formation of regional policy after the formation of the People’s Republic of China and the features of the zoning of the territory of China during the years

of economic reform. In: Ostrovskii AV (Ed), Kamennov PB (Comp) China: economics of regions. Institute of the Far East of the Russian Academy of Sciences, Moscow, 19-30. URL: https://elibrary.ru/download/elibrary_28827742_79920785.pdf

Other sources of information

NBS of the People's Republic of China (2023) Statistical Report on the socio-economic development of the People's Republic of China in 2022 [中华人民共和国2022年国民经济和社会发展统计报告]. URL: https://www.stats.gov.cn/tjsj/zxb/202302/t20210227_1918980.html (in Chinese, accessed on: 28.02.2023)

NBS of the People's Republic of China (2024) Statistical Report on the socio-economic development of the People's Republic of China in 2023 [中华人民共和国2023年国民经济和社会发展统计报告]. URL: https://www.guancha.cn/politics/2024_02_29_726729.shtml (in Chinese, accessed on: 29.02.2024)

XX national Congress of the CPC (2022) Report “to hold High the great banner of socialism with Chinese characteristics for unity in the fight for comprehensive modernized construction of a socialist state” [高举中国特色社会主义伟大旗帜为全面建设社会主义现代化国家而团结奋斗 – 在中国共产党第二十次全国代表大会上报告]. URL: www.npc.gov.cn/npc/xyddesd/xyddesd.shtml (in Chinese, accessed on: 04.11.2022)

China Statistical Abstract 2001 (2001) [中国统计摘要 – 2001]. 北京: 中国统计出版社] (in Chinese)

China Statistical Abstract 2004 (2004) [中国统计摘要 – 2004]. 北京: 统计出版社] (in Chinese)

China Statistical Abstract 2010 (2010) [中国统计摘要 – 2010]. 北京: 中国统计出版社] (in Chinese)

China Statistical Abstract 2011 (2011) [中国统计摘要 – 2011]. 北京: 中国统计出版社] (in Chinese)

China Statistical Abstract 2014 (2014) [中国统计摘要 – 2014]. 北京: 中国统计出版社] (in Chinese)

China Statistical Abstract 2019 (2019) [中国统计摘要 – 2019]. 北京: 中国统计出版社] (in Chinese)

China Statistical Yearbook 2020 (2020) [中国统计年鉴 – 2020]. 北京: 中国统计出版社]. URL: <http://www.stats.gov.cn/sj/ndsj/2020/indexeh.htm> (in Chinese, accessed on: 27.06.2023)

China Statistical Yearbook 2021 (2021) [中国统计年鉴 – 2021]. 北京: 中国统计出版社]. URL: <http://www.stats.gov.cn/sj/ndsj/2021/indexeh.htm> (in Chinese, accessed on: 27.06.2023)

China Statistical Yearbook 2022 (2022) [中国统计年鉴 – 2022]. 北京: 中国统计出版社]. URL: <http://www.stats.gov.cn/sj/ndsj/2022/indexeh.htm> (in Chinese, accessed on: 27.06.2023)

China Statistical Yearbook 2023 (2023) [中国统计年鉴 – 2023]. 北京: 中国统计出版社]. URL: <https://www.stats.gov.cn/sj/ndsj/2023/indexeh.htm> (in Chinese, accessed on: 17.01.2024)

World Bank (2023) Statistics Data, World Bank Group. URL: <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?view=chart> (date of reference: 25.06.2023)

World Bank (2024) Open Data, World Bank Group. URL: <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?view=chart> (date of reference: 23.02.2024)

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