

Our country's Key Industrial Sectors and its changes

I. Introduction

Over decades of development, particularly since the implementation of the reform and opening-up policy, our country has not only boosted the growth of traditional industrial sectors such as energy, metallurgy, machinery, and chemicals but also laid a solid foundation for emerging industries such as aerospace, electronics and information technology, and bioengineering. Currently, our country leads the world in the production volume of hundreds of industrial products, with exports reaching both domestic and international markets.

II. Overview of the Development of Our Country's Industry

The development of our country's industry can be divided into the following stages:

A. The Initial Stage of Industrialisation (1949 – 1978):

- In the early years following the founding of the People's Republic of China, the industrial base was weak, with a primary focus on light industry.
- The government implemented a strategy of “prioritising the development of heavy industry, emphasising sectors such as steel, coal, and machinery manufacturing.
- During this period, an independent and relatively comprehensive industrial system was established, laying the foundation for future development.

B. The Reform and Opening-Up and Rapid Industrialisation Stage (1978 – 2001):

- The reform and opening-up policy injected new vitality into industries, leading to the rapid rise of township and village enterprises.
- The introduction of advanced foreign technologies and management practices accelerated the growth of light industry and gradually optimised the industrial structure.
- The eastern coastal regions took the lead in development, forming a number of internationally competitive manufacturing hubs.

C. The Post-WTO Accession and New-Type Industrialisation Stage (2001 – Present):

- Following our country's accession to the World Trade Organisation (WTO), the country's industrial sector became deeply integrated into the global value chain, earning the title of the “world's factory”.
- High-tech industries have grown rapidly, and the industrial structure is advancing toward higher value-added, intelligent, and environmentally sustainable development.
- Significant progress has been made in regional coordinated development, with the central and western regions undertaking industrial relocation and optimising the national industrial layout.
- In 2015, our country launched "Made in China 2025," the first ten-year plan for its

"Manufacturing Power" strategy. The plan aims to achieve three key goals:

- Strive to become a manufacturing power within ten years;
- By 2035, our country's overall manufacturing industry will reach a mid-level position among the world's manufacturing powers;
- By the centenary of the founding of the People's Republic of China, our country's position as a manufacturing powerhouse will be further consolidated, and its comprehensive strength will be among the world's leading manufacturing powers.
- By 2024, our country has fully achieved its targets in four of the ten high-tech sectors outlined in its "Made in China 2025" initiative: electric vehicles, energy and power generation technology (including nuclear and solar energy supply chains), high-speed rail, and shipbuilding. Our country has also achieved partial success in aerospace, biotechnology, new materials, robotics and manufacturing tools, and semiconductors.

III. Key Industrial Types and Spatial Distribution

Our country has a diverse range of key industrial types. The following are some of the most representative industries:

A. Steel Industry: Our country is the world's largest producer of steel, and the steel industry serves as a fundamental pillar of the national economy.

- Current development: In recent years, our country's steel industry has actively advanced supply-side structural reforms, eliminating outdated production capacity while enhancing product quality and value-added capabilities.
- Spatial distribution: The steel industry is primarily concentrated in northern and eastern parts of our country, with major production areas in provinces such as Hebei, Jiangsu, and Shandong.

B. Electronics and Information Industry: The electronics and information industry is a strategic, fundamental, and leading sector of the national economy.

- Current development: Our country's electronics and information industry ranks first globally in scale, achieving significant breakthroughs in fields such as 5G technology and artificial intelligence.
- Spatial distribution: This industry is mainly located in the Zhujiang Delta, Chang Jiang Delta, and the Bohai Economic Rim. Key industrial hubs include cities such as Shenzhen, Shanghai, and Beijing.

C. New Energy Vehicle (NEV) Industry: The new energy vehicle industry represents a crucial direction for the future development of the automotive sector.

- Current development: Our country has led the world in both the production and sales of new energy vehicles for several consecutive years, with continuous advancements in technological innovation.
- Spatial distribution: The industry is primarily concentrated in the Chang Jiang Delta,

Zhujiang Delta, and the Beijing-Tianjin-Hebei region. Major research, development, and production centers are located in cities such as Shanghai, Shenzhen, and Beijing.

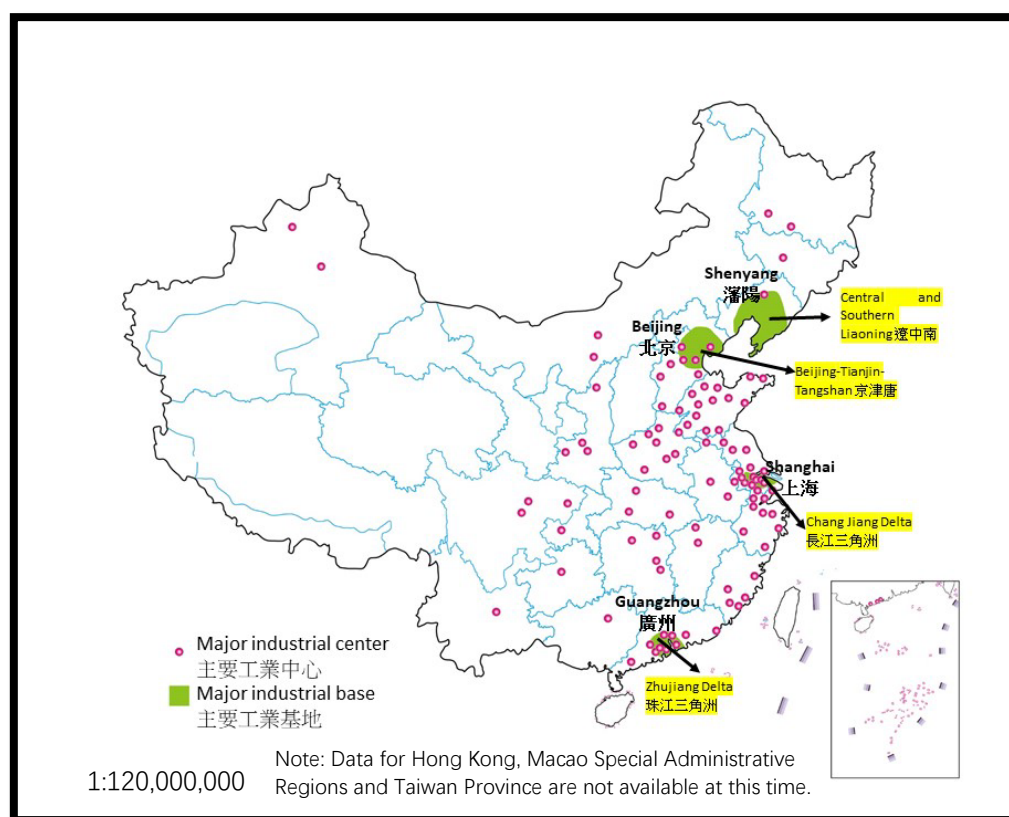
D. Our Country's Four Major Coastal Industrial Bases

The four major industrial bases along the coast of our country have their distinctive characteristics.

- The central and southern Liaoning region is a famous heavy industrial base;
- The Beijing-Tianjin-Tangshan region is the largest comprehensive industrial base in the northern part of our country;
- The Shanghai-Nanjing-Hangzhou region (Chang Jiang Delta region) has a long history and a solid foundation of industrial development, and is the largest comprehensive industrial base in the country;
- the Zhujiang Delta region, such as Shenzhen and Foshan, is accessible to foreign investment and has formed a comprehensive industrial region with a high-tech base.

In addition to the above four industrial bases, our country also has numerous industrial clusters of varying sizes, such as the Shandong Peninsula, southeastern Fujian, Chengdu-Chongqing area, Beibu Gulf, etc.

Figure 1: Industrial distribution in our country



Source: Junior Secondary School Human Education Edition Textbook, Grade 8, Volume 1.

Data Source: China Regional Statistical Yearbook, China Provincial and Municipal Statistical Yearbook

IV. Changes in Key Industrial Sectors

In recent years, our country's key industrial sectors have undergone profound transformations, primarily reflected in the following aspects:

A. Upgrading of Industrial Structure

- Traditional industries are accelerating their transformation and upgrading of production techniques and infrastructure. Emerging industries are developing rapidly. The industrial structure is constantly being optimised.
- For example, the steel industry has shifted from the emphasis on quantity to quality of production, and the electronic information industry is adopting high-end and intelligent directions.

B. Adjustment of Regional Structure

- Some industries in the eastern coastal areas have been relocated to the central and western regions, and regional coordinated development has made positive progress.
- For example, some labour-intensive industries have moved from the eastern coastal areas to the central and western regions, promoting a more balanced economic development.

C. Technological Innovation Drive

- The leading role of scientific and technological innovation in industrial development is becoming increasingly prominent, and new technologies, new products and new business models are constantly emerging.
- For example, new-generation information technologies such as artificial intelligence and big data are widely used in the manufacturing industry, driving the manufacturing industry to develop in an intelligent direction.

V. Challenges

As China's manufacturing industry pivots from scale-driven growth to innovation-led transformation, it faces a confluence of internal and external pressures that are redefining its role in the global industrial landscape. The following represent the most salient challenges confronting the sector today:

- Escalating external volatility
Amid heightened geopolitical tensions, rising trade protectionism, and disruptions to global supply chains, our country's manufacturing sector is operating in an increasingly uncertainty and fragmented international environment. These factors threaten the stability of cross-border industrial cooperation and increase the complexity of global market engagement.
- Intensified global competition and shifting comparative advantage
Our country is simultaneously being squeezed by two competitive forces: developed economies are accelerating the relocating the strategic manufacturing back to home countries,

while developing nations, particularly in Southeast Asia and Latin America, are attracting the cost-sensitive production through lower labour and operational costs. This dual challenges reduce the comparative advantages of our traditional manufacturing and accelerates the structural transformation of industry in our country.

- **Rising input costs and acceleration of input of high-tech in production**
Climbing labour, energy, and environmental compliance costs are eroding the cost-effectiveness of low-end manufacturing. While this puts pressure on traditional industries, it also compels the transition toward advanced manufacturing characterised by automation, digitalisation, and green innovation.
- **Innovation gaps and technological dependencies**
Despite notable advances in key strategic sectors, our country continues to face bottlenecks in foundational research, high-end equipment, and core components. Reducing reliance on foreign technologies and achieving breakthroughs in critical areas remain pivotal to long-term industrial resilience.
- **Regional disparities in stages of industrial development**
Although the coastal provinces boast robust industrial clusters and innovation ecosystems, many central and western regions still lack the infrastructure, talent, and investment needed to fully capitalise on the development opportunities. Addressing these regional imbalances is essential for fostering nationwide industrial synergy and inclusive growth.
- **Uncertain pathways in emerging and future industries**
While our country is making bold moves into next-generation sectors such as artificial intelligence, quantum computing, commercial aerospace, and low-altitude economy, these emerging industries are still nascent in terms of technological maturity, policy coordination, and global competitiveness. Capturing first-mover advantages will demand long-term strategic planning, sustained research and development investment, and proactive ecosystem cultivation.

VI. Case Studies

Case 1: Shenzhen's Transformation from Processing Trade to an Innovation Hub

- Shenzhen, as the window of our country's reform and opening-up, has grown from a small border town into a global metropolis.
- The city's industrial growth has shifted from labor-intensive processing trade to high-tech innovation, building a modern industrial system led by electronics, telecommunications, and artificial intelligence.

- For example, the establishment of the Shenzhen High-Tech Industrial Park and the headquarters of tech giants like Huawei, Tencent, and DJI illustrate how innovation and industrial clustering have redefined the city's economic structure.

Case 2: Exploring and Practising the Revitalisation of the Northeast Old Industrial Base

- The Northeast region, once the backbone of our country's early industrialisation, has played a crucial role in sectors such as steel, machinery, and petrochemicals.
- In recent years, the region has faced structural stagnation and economic slowdown due to outdated technology and a rigid industrial structure.
- For example, cities like Shenyang and Harbin have launched industrial upgrading initiatives, including smart manufacturing zones and innovation incubators. The "Northeast Revitalisation Plan (2016-2020)" also introduced fiscal incentives and talent policies to attract high-end industries and investment.

Case 3: Green Industrial Transformation in the Chang Jiang Delta

- The Chang Jiang Delta, encompassing cities like Shanghai, Suzhou, and Hangzhou, is a core region for China's advanced manufacturing and innovation.
- In response to environmental pressure and carbon targets, the region has been actively pursuing green industrial transformation.
- For example, Suzhou Industrial Park (SIP) has deepened its commitment to promoting a circular economy to support energy conservation and carbon reduction. It actively encourages resource-efficient and circular production models, particularly within the electronics and biotechnology sectors, thereby aligning industrial development with sustainable and low-carbon objectives. Shanghai has also launched the "Green Manufacturing System Construction Implementation Plan" to upgrade traditional industries and encourage low-carbon development.

VII. Conclusion

The development of our country's key industrial sectors is a testament to a history of perseverance and innovation. Looking ahead, our country's industrial sector will continue to pursue innovation-driven, green development and open cooperation. This commitment to high-quality industrial growth will provide strong momentum for realizing the Chinese dream of national rejuvenation.

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