Section 3 Case studies of specific industries

Below, from the viewpoints of the three elements of industrial development in China—that is, political-economic models, competition between local governments, and market characteristics—we will consider cases of development in specific industrial sectors. First, after reviewing the history of China's industrial policies, we will look at an overview of the process of industrial development concerning *shanzhai* mobile phones, wind power generation, solar power generation, and electric vehicles. We will thereby consider how those three elements actually functioned and what the commonalities and differences are across industrial sectors in terms of the elements.

1. History of industrial policies

Let us look at an overview of the history of China's industrial policies based on preceding studies.[219] After the launch of the reform and opening-up initiative, China's industrial policies were formulated during the transition from a planned economy to a market economy system. In 1989, China's first policy directive proclaiming "industrial policy," "Decisions Concerning the Main Points of China's Current Industrial Policy," was promulgated by the State Council. This represented a prototype of industrial policy in terms of policy-making body, prioritization, the division of work between government sectors, investment approval systems, and listing of industries (Table II-2-3-1).[220] The industrial policy set forth at that time was intended mainly to correct the industrial structures, but in 1994, China announced the Outline of the National Industrial Policy for the 1990s, which provided for the enhancement of infrastructure and basic manufacturing industries, active promotion of pillar industries (i.e., machinery/electronics, petrochemicals, automobiles, and construction), among other matters. Under the policy outline, an industrial policy for automotive manufacturing was formulated as a policy targeted at a specific industry.[221] In 2001, when China acceded to the WTO, the country started to promote active entry by foreign enterprises and shifted to a policy management conscious of trade rules, with approaches like protecting domestic industries with high tariffs gradually disappearing.[222] Starting with the 11th Five-Year Plan, announced in 2006, China shifted emphasis of the plan to presenting a national vision.[223] At the same time, China pursued self-innovation the promotion of science and technology and formulated the Medium-and Long-Term National Plan for Science and Technology Development. Under the 12th Five-Year Plan, announced in 2011, the selection of strategic pillar industries started. In 2015, the Made in China 2025 plan and the Internet + plan were announced. Under the 13th Five-Year

[219] Watanabe (2025), Marukawa (2025), Marukawa (2020)

[220] Watanabe (2025) summarized the history of China's industrial policies while referring to Jiang (2021).

[221] Marukawa (2020) pointed out that this was the first time that a Chinese policy advocated under the name of "industrial policy" was promulgated by the State Council. However, the policy objective at the time was not promoting the industry but correcting the imbalance in the industrial structure (overinvestment in the processing industry, and underinvestment in the energy, transportation, and raw materials sectors) by regulating and guiding flows of investments, loans and foreign capital, according to Marukawa.

[222] Marukawa (2020) observed that after China's accession to the WTO in 2001, existing approaches, such as imposing high tariffs, disappeared and that the industrial policy for the automobile industry announced in 1994 went out of force, followed by the announcement of a new policy for the development of the automobile industry in 2004.

[223] The same English translation of "plan" is widely used, although the name previously referred to as "计划 (plan)" was changed to "规划 (vision)" in Chinese.

Plan, announced in 2016, the vision of integrating the manufacturing industry and the internet was presented, the policy direction of aiming for new value creation was indicated, and the National Innovation-Driven Development Strategy was announced.

Watanabe, citing Jiang, pointed out that China's industrial policies have a strong tendency to be contrary to competitive policy and the principles of fair competition and competitive neutrality because they are targeted at particular industries and allocate social resources preferentially to those industries.[224] On the other hand, Watanabe also mentioned that China's industrial policies represented the exertion of influence by the central government over comprehensive industrial structures and pointed out the need to appreciate the policies for resulting in adjustments across industries and the development of industry-wide economies of scale (the Marshallian externality). Watanabe argued that the creation of the Marshallian externality itself has led to the outstandingly high level of China's industrial competitiveness. Some of China's industrial policies aimed to curb excessive production. Under the supply-side structural reform that was advocated from 2015 onward, China sought to reduce overcapacity for steel and coal, among other products.

Regarding planning and implementation of industrial policies, in principle, the central government has developed nationwide policy directions and plans, while local governments have implemented specific policy measures in light of the actual circumstances of their own regions, although there have been some changes from time to time. Specifically, first, the central government prepares lists of industries designated for promotion, restriction, and shakeout, and based on those lists, approval is granted for investment and market entry, industry shakeout is forcibly carried out, and support measures are implemented in terms of subsidies, preferential tax treatment, low-interest loans government guidance funds, and government procurement. Listing of specific industries facilitates governmental support and enables banks and funds to decide investment priorities. On the other hand, this tends to create a situation where investments are concentrated on particular enterprises and industries and overcapacity is developed. With the central government's policy directions in mind, local governments have implemented industry promotion measures to create new industries and invite excellent enterprises so that their local economies can be developed. In addition to providing subsidies and preferential tax treatment, local governments use policy measures such as offering land and fuels for free or at low prices.

[224] Watanabe (2025), Jiang (2021)

Table II-2-3-1. Changes in China's major industrial policies

Year	Policy documents, etc.	Remarks
1989	Decision on Current Industrial Policy by the State Council	Presenting a prototype of industrial policy
1994	National Industrial Policy Outline for the 1990s	Fostering pillar industries
1996	The 9th Five-Year Plan	Improving the efficiency of state-owned enterprises
2001	WTO accession	
2001	The 10th Five-Year Plan	Great Western Development
2004	Automobile Industry Development Policy	Formulation of industrial policies for various industries
2006	The 11th Five-Year Plan	Positioned as the government's vision (from "计划 (plan)" to "规划 (vision)")
2006	Medium-and Long-Term National Plan for Science and Technology Development	Promotion of science and technology, and enhancement of innovation capabilities
2011	The 12th Five-Year Plan	Promotion of Strategic Emerging Industries
2015	Made in China 2025	Three stages to be a global manufacturing powerhouse
2015	Internet +	Application of ICT to industries
2015	Mass Entrepreneurship and Innovation	Promotion of innovation and entrepreneurship
2015	Supply-side structural reform	Reduction of excess capacity in steel, cement, and coal
2016	The 13th Five-Year Plan	Integration of manufacturing and the internet, creating new value
2016	Outline of the National Innovation-Driven Development Strategy	Innovation-driven economic growth
2021	The 14th Five-Year Plan	Digital China

Note: In the 11th Five-Year Plan, the name previously referred to as "计划 (plan)" was changed to "规划 (vision)" in Chinese, while it is still referred to here as "Plan" in English.

Source: METI, referencing Watanabe (2025), Marukawa (2025), and others.

2. *Shanzhai* mobile phones

In China's mobile phone industry, apart from production of mobile phones from legitimate brands, production of so-called "*shanzhai* mobile phones," which refer to cut-price models, including illegitimate products, expanded rapidly in the 2000s through the 2010s, and this industry's presence grew in terms of exports, mainly in developing countries.[225] As the factors that realized low prices, Ding and Pan pointed out the ones already mentioned, such as the lowering of barriers to entry and active market entry due to the vertical division of work and the use of platforms (sharing of common

[225] "Shanzhai," which originally means a bandits' hideout in Chinese, is used to refer to manufacturers operating without a governmental production license, or counterfeit products for which legitimate license fees have not been paid. *Shanzhai* mobile phones are also called "black market mobile phones"

technologies, parts, materials and markets), in addition to legal and regulatory factors.[226] Here, we will explain the key points of those factors.

Production of *shanzhai* mobile phones was supported by small and medium-size enterprises. Whereas the top brands at that time, such as Nokia, internalized processes such as development, materials procurement, manufacturing and sales, those enterprises were operating on a division-of-work system under which different production processes were undertaken by different enterprises, and this system enabled small enterprises to enter the market, according to Ding and Pan. What was important at that time is that regarding electronic parts that require technologically advanced fixed equipment, research and development cost and fixed equipment cost were saved through the sharing of many IC chips supplied by major companies such as MediaTek (the use of a technology platform). As for procurement and sale between enterprises, a market dedicated for those purposes in Shenzhen was used as a trading platform in order to save the cost of screening suppliers and customers, according to Ding and Pan.[227] As a result, barriers to entry were lowered and many enterprises entered the market. However, it was difficult to achieve product differentiation because of the use of common key components, that is, IC chips, and fierce price competition therefore occurred. The price cuts expanded demand further, encouraging more enterprises to enter the market. Presumably, China's mobile phone industry became more competitive because of a virtuous circle of active market entry leading to price falls, which in turn resulted in a further expansion of demand.[228] Kajitani pointed out that in the case of *shanzhai* mobile phones as well, the following mechanism worked: "The rapid expansion of demand led to the autonomous creation of a new industrial division-of-work system, and this promoted entry into the new industry and improved productivity."[229]

3. Wind power generation

The trends in installed capacity for wind power generation in major countries around the world show that having started to rapidly introduce wind power generation in the second half of the 2000s, China now possesses the largest generation capacity in the world (Figure II-2-3-2).[230] Behind the rapid

[226] Ding and Pan (2013). In China, until 2008, in order for enterprises to legitimately manufacture mobile phones, it was necessary to establish a research and development center and a sales center, prepare 200 million yuan as registration funds and obtain a license. Most small and medium-size enterprises failed to meet those conditions and were forced to start production without a license. Those small and medium-size mobile phone manufacturers tended to produce counterfeits of mobile phones from top international brands, particularly at the initial stage.

[227] The Huaqiangbei area in Shenzhen, which is crowded with electronics shops. In the area, small shops housed side by side in the buildings deal in products such as mobile phones and electronic parts. It is said that around 2010, there were around 30,000 shops there.

[228] In the 2010s, s*hanzhai* mobile phones gradually lost popularity because major manufacturers such as Huawei and Xiaomi started to sell low-priced models and telecommunication service operators that were eager to spread 3G services promoted legitimate products under joint sales strategies with major manufacturers. However, *shanzhai* mobile phones had the effect of raising the level of China's mobile phone industry by cultivating local enterprises' competitiveness against Nokia and other foreign enterprises and developing local human resources.

[229] Kajitani (2024)

[230] IRENA, "Renewable Energy Statistics database," https://pxweb.irena.org/pxweb/en/IRENASTAT/IRENASTAT__Power%20Capacity%20and%20Generation/Country_ELECSTAT_2025_H1-PX.px/ (as viewed on March 13, 2025)

capacity expansion was the rise of domestic enterprises. However, at the beginning of the 2000s, the domestic wind power generation industry in China was still immature and depended on imports (Figure II-2-3-3). How did China's wind power enterprises grow? Let us consider the factors behind the growth based mainly on the findings by Marukawa and Horii.[231]

Marukawa pointed out that China's wind power generation equipment industry "was grown as an import substitution industry under the policy of protecting nascent industries in order to domestically gain economic benefits from the expansion of domestic demand for wind power generation." In short, the industry was launched mainly under the government's initiative.[232] The history of the government's policies shows that first, in 2003, the government itself started the construction and operation of wind power generation plants as a concession-type national project (Table II-2-3-4). From then on, a certain number of wind power generation plants were constructed every year under the government's initiative.[233] In 2005, in a notice of the requirements for wind power generation, issued in 2005, the government of China decreed that the domestic construction of wind power generation facilities would not be approved unless the local content ratio was 70% or higher. The United States and European countries expressed opposition to this policy, which was eventually abolished in 2010. However, while Chinese enterprises were lacking in competitiveness, the protectionist policy gave domestic enterprises the time to develop the industry. In 2006, the Renewable Energy Law was put into force, and China introduced mandatory goals for renewable energy utilization by large-scale electric business operators and launched the feed-in-tariff (FIT) system,[234] paving the way for the expansion of the domestic market.[235] The Medium to Long-term Renewable Energy Development Plan, announced in 2007, set the goal of increasing installed capacity for wind power generation to 5 million kW by 2010, and the target capacity was raised in 2008 to 10 million kW.

Marukawa also mentioned the harmful effects that were caused by launching the new industry while the pricing mechanism was being distorted under the government's initiative. As an example, Marukawa pointed out that as many enterprises entered the wind power generation market one after another with no regard for demand, installed capacity expanded to a size 4.5 times as large as the target in 2010. Another example cited by Marukawa was the failure to purchase a large portion of the electricity generated by wind power (curtailment) due to power grid constraints, a problem that arose from the disproportionate concentration of sites suitable for wind power generation in northern regions, such as

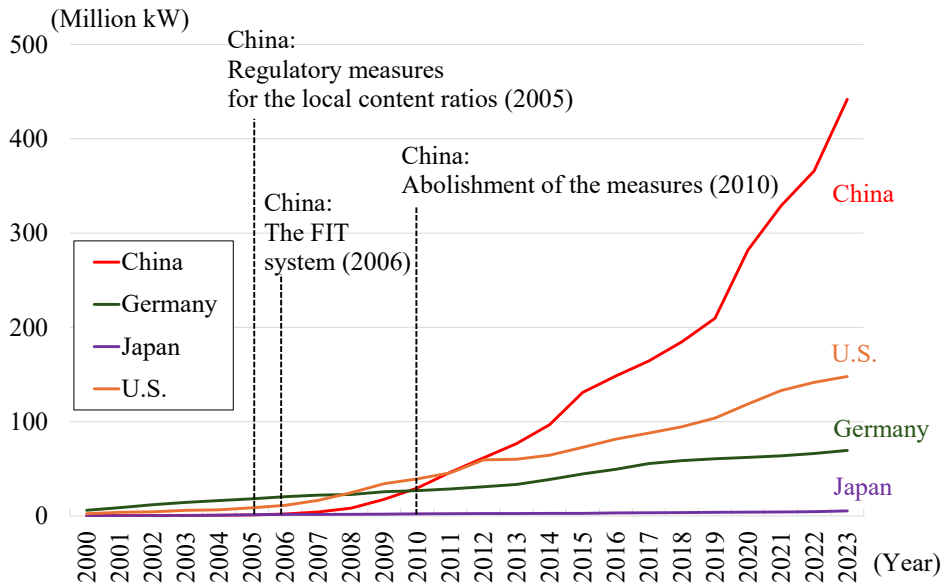
231 Marukawa (2025), Horii (2013)
232 Marukawa (2025)
233 Horii (2013)
234 Under the FIT system, the government sets prices for the purchase of renewable energy-derived electricity by electric power companies at such a level that renewable power generation businesses can earn profits while the burden of high purchase prices can be absorbed by levying surcharges on electricity rates.
235 Horii (2013) pointed out that contrary to the system's principle of purchasing the whole volume at fixed price, the system was similar in actual operation to the Renewables Portfolio Standard system, which sets the minimum threshold for the ratio of renewable energy-derived electricity to total electricity supply by electric power companies, with renewable energy-derived electricity purchased under a competitive bidding system.

the Inner Mongolia Autonomous Region.[236] Regarding the FIT system, Marukawa mentioned that non-payments for purchased electricity occurred due to shortages of subsidy funds for renewable energy business operators because the renewable energy surcharges on electricity rates were kept low relative to the larger-than-expected number of enterprises that entered the market. It was difficult to raise electricity rates, so the purchase prices were gradually lowered and subsidies were on course to be abolished.

Meanwhile, amid growing interest in the global warming problem around the world, in 2020, China declared that its CO2 emissions would peak out by 2030 and that it would realize net zero emissions by 2060. To honor those commitments, China set an ambitious goal of increasing combined installed capacity for wind and solar power generation to 1.2 billion kW. Although the FIT system expired in 2021, emissions trading started, enabling power generation enterprises that introduced new energy on a large scale to earn profits by selling emission credits.

After the policy twists and turns mentioned above, China ended up becoming a major wind power generation country. Among the factors cited for that result are the unique characteristics of the wind power generation industry. Key components, such as blades, require high transportation cost due to their heavy weights and are therefore more suited to local production. Marukawa also pointed out that for that reason, components manufactured in China are intended mainly for domestic installation and the share of components intended for export is small.

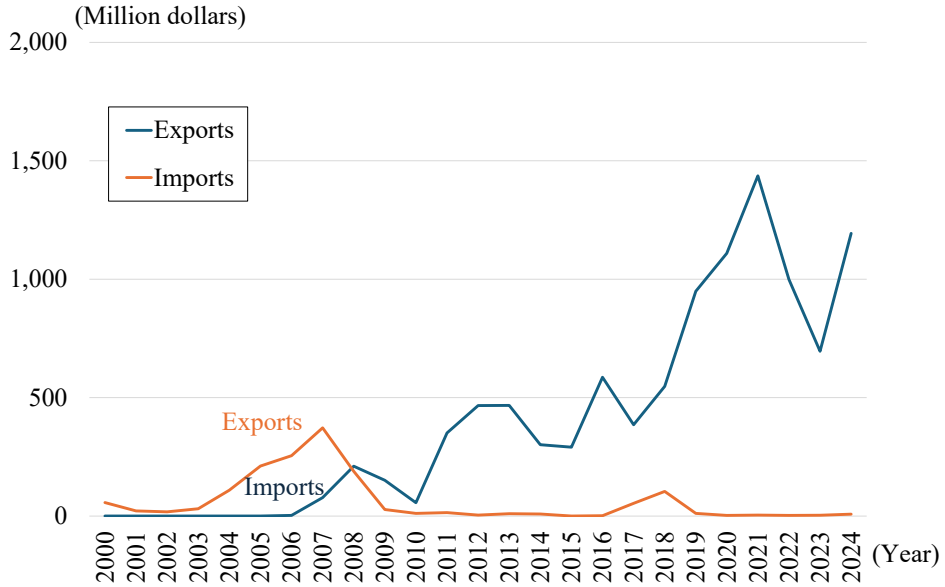
Figure II-2-3-2. Cumulative installed capacity for wind power generation in major countries



Source: *Renewable Energy Statistics* (IRENA).

[236] Marukawa (2025). Marukawa pointed out that the curtailment rate for wind power generation was as high as 15.5% in 2015 and 17.1% in 2016. In cold climate regions in northern China in particular, in winter, precedence is given to coal-fired power generation, which can also be used as supply sources of heat, steam, and gas, and as a result, the curtailment rate in January-March 2015 was as high as 58% in Jilin Province and 40% in Liaoning Province.

Figure II-2-3-3. Exports and imports of wind-power generators in China



Note: This figure shows the aggregated data on wind power generators falling under HS850231.

Source: Global Trade Atlas.

Table II-2-3-4. Legislation, plans, etc. related to wind power generation in China

Year	Legislation, plans, etc.	Major contents
2003	Bidding under the wind power concession projects	- Since then, China has been building wind power generation plants under the national projects.
2005	Notice of the requirements for contraction control related to wind power generation	- 70% or higher of the local content ratio was set for wind power generation facilities (the regulations were abolished in 2010).
2006	Enforcement of the Renewable Energy Law	- The electricity under the renewable energy projects approved by the government will be purchased, in which the burden of high purchase prices can be absorbed by levying surcharges on electricity rates.
2006	The 11th Five-Year Plan	- A reduction target was set for energy consumption per GDP.
2007	The Medium to Long-term Renewable Energy Development Plan	- Renewable energy targets were set (2010: 1%; 2020: 3%). - Mandatory goals for renewable energy utilization by electric business operator were sets (2010: 3%; 2020: 8%). - Goals of increasing installed capacity for wind power generation were set at 5 million kW by 2020 and 30 million kW by 2030.
2008	The 11th Five-Year Plan for Renewable Energy Development	- The goal of increasing installed capacity for wind power generation was enhanced to 10 million kW by 2020.
2015	COP21	- The Paris Agreement was concluded. China set a CO2 emission reduction target per GDP.
2017	The 13th Five-Year Plan for Renewable Energy Development	- The goal of increasing installed capacity for wind power generation was enhanced to 210 million kW by 2020.
2020	Speech by President Xi Jinping at the UN General Assembly	- President Xi declared that China will peak out its CO2 emissions by 2030 and achieve net-zero emission by 2060.
2021	Notifications and action plans from the Central Committee of the Communist Party of China and the State Council	- Goals of increasing combined installed capacity for wind and solar power generation were set at 1.2 billion kW.

Sources: Marukawa (2025), Horii (2013).

Meanwhile, Horii analyzed the factors on the side of enterprises and pointed out that Chinese enterprises at that time needed to make catch-up efforts due to their lack of technological expertise regarding wind power generation.[237] Of the approximately 10,000 components of a wind power generator, many were available in the existing machinery industry in China, but there was no accumulated technological expertise regarding key components, such as blades and gearboxes. While major state-owned enterprises in heavy industries undertook production of those components, Horii mentioned that introducing technologies from foreign countries was critically important. When looking for foreign partners, China avoided foreign enterprises that had established Chinese subsidiaries and were therefore potential competitors and introduced technologies from other foreign enterprises. As a result, China obtained advanced technology at relatively low cost without bearing the burden of the costs of research and development and other investments.

As for production systems, several foreign enterprises' local manufacturing subsidiaries in China adopted an integrated production system (vertical integration), including production of key components, in principle, but Chinese enterprises were operating on a division-of-work system. Major specialized enterprises manufactured blades and other key components so that fixed investment could be concentrated at a small number of enterprises. Blade and other key components manufactured by the specialized enterprises were sold widely to external user enterprises. Wind power generator manufacturers, which were responsible for the final process of assembly, were able to reduce entry and production costs by concentrating on assembling externally procured key components.

4. Solar power generation

We will consider the case of solar power generation based on Marukawa's findings.[238] In China, wind power generation was protected and grown under the government's initiative as an immature nascent industry, but solar power business was started mainly by private entrepreneurs in order to manufacture products for supply to foreign markets. Some local governments provided various forms of support to specific enterprises engaging in this business, but the central government did not necessarily promote the development of the solar power generation industry actively.[239]

In the early 2000s, there was little domestic demand for solar power generation in China, while demand in the United States, Europe and Japan was expanding due to the introduction of the FIT system (Figure II-2-3-5).[240] Chinese emerging enterprises that paid attention to this situation started production of solar cells in China and exported almost all products. In the second half of the 2000s, those enterprises raised large amounts of funds by listing shares in the United States and expanded production quickly, resulting in a rapid increase in exports of Chinese solar cells (Figure II-2-3-6). However, in the 2010s,

[237] Horii (2013)

[238] The main reference source is Marukawa (2025), and Marukawa (2012) and "KEIZAI KYOUSHITSU 'KEKKA OORAI' NO SAIENE SHINKOU—CHUUGOKU NO SANGYOU SEISAKU NO IMA," a Nihon Keizai Shimbun column dated March 10, 2023 (https://www.nikkei.com/article/DGXZQOCD2211M0S3A220C2000000/), were also used as sources.

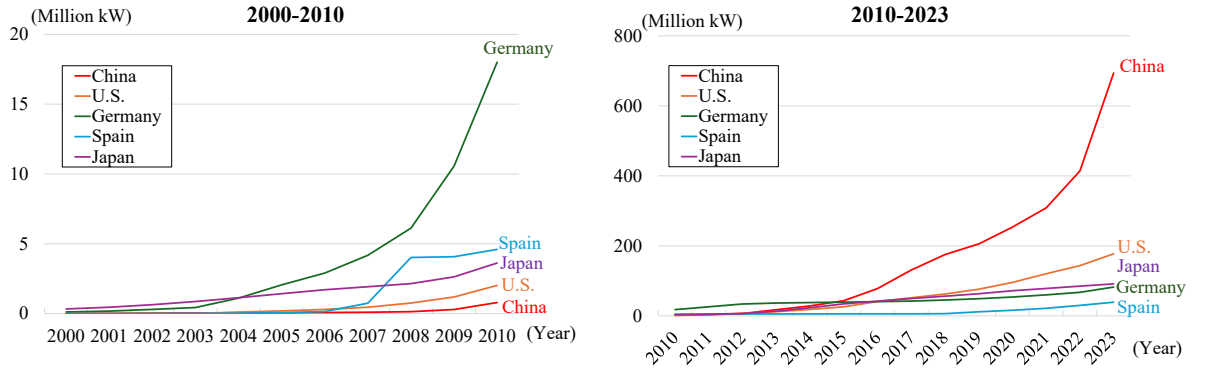
[239] Marukawa (2025) pointed out that local governments in China also provided support. In cases where local governments made investments, support was provided mainly in the form of provision of blocks of land within industrial zones.

[240] IEA (2024)

in response to the rapid increase in imports from China, the United States and European countries started to impose trade restrictions on Chinese solar cells. As a result, Chinese manufacturers struggled and failed one after another.

Confronted with this situation, the central government shifted to the policy of expanding domestic demand in China and raised the goal for installed solar power generation capacity (Table II-2-3-7). Previously, under the Medium to Long-term Renewable Energy Development Plan, announced in 2007, China's goal for solar power generation was to increase installed capacity to 1.8 million kW by 2020, a far lower than the goal for wind power generation, which was to increase capacity to 5 million kW by the same year. However, under the solar power generation development plan under the 12th Five-Year Plan, announced in 2012, the goal was revised, with the target for installed capacity increased more than 10-fold to 21 million kW and the target year moved up by five years to 2015. In 2013, the target for installed capacity was increased further, to 35 million kW. Afterwards, installed capacity in China far surpassed capacities in other major countries. Supported by brisk domestic demand, Chinese solar cell manufacturers achieved revival. Later, as in the case of wind power generation, Chinese manufacturers enjoyed the benefits of large-scale production, even while facing problems such as power grid constraints and subsidy fund shortages, and became more competitive through active investment and technology development. However, recently, there has been a media report indicating that excessive competition has arisen and export prices have fallen markedly due to a supply-demand imbalance, squeezing Chinese manufacturers' earnings.[241]

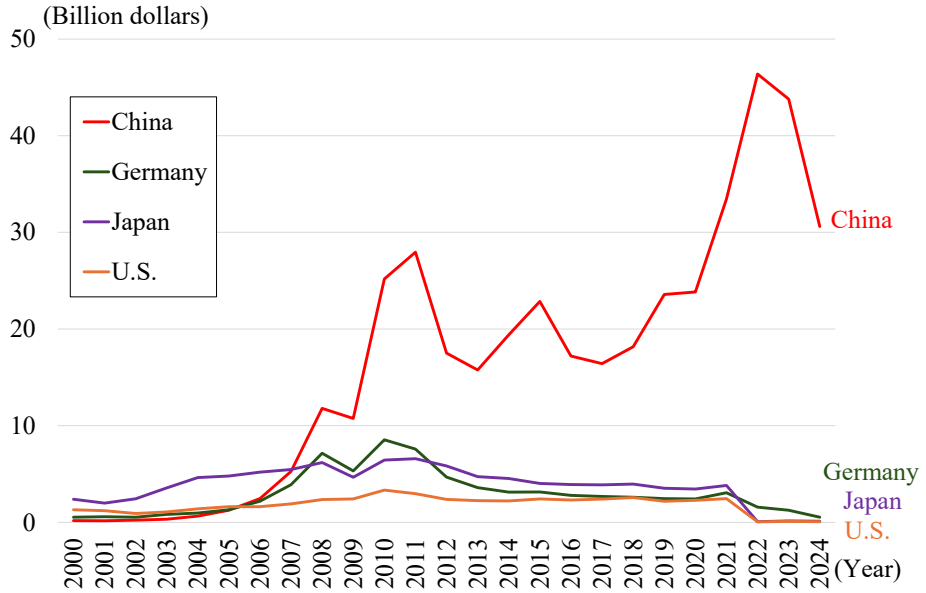
Figure II-2-3-5. Cumulative installed capacity for solar power generation in major countries



Source: IEA (2024).

[241] Toyo Keizai Online, "CHUUGOKU NO TAIYOUKOU PANERU 'RIEKI NAKI HANBOU' NO TEZUMARI (an article dated January 17 from Caixin of China that was translated into Japanese and distributed online)," February 5, 2025, https://toyokeizai.net/articles/-/855293 (as viewed on March 31, 2025)

Figure II-2-3-6. Export values of solar cells in major countries



Note: As for the data from 2022, this figure shows the total values of solar cells falling under HS854142 (Photovoltaic cells not assembled in modules or made up into panels) and those falling under HS854143 (Photovoltaic cells assembled in modules or made up into panels). As for the data in and before 2021, this figure shows the values of solar cells falling under former HS854140 for convenience since the HS code system did not separate light-emitting diodes and solar cells. As a result, there is a statistical discontinuity in 2022, and the significant decline in values for Japan and the U.S. that year is largely attributable to the exclusion of light-emitting diodes from the tally.

Source: Global Trade Atlas.

Table II-2-3-7. China's installed capacity targets for solar power generation

Year	Legislation, plans, etc.	Major contents
2007	The Medium to Long-term Renewable Energy Development Plan	1.8 million kW by 2020
2012	The 12th Five-Year Plan for the Development of Solar Power Generation	21 million kW by 2015
2013	Significant increase in targets by the State Council	35 million kW by 2015
2017	The 13th Five-Year Plan for Renewable Energy Development	150 million kW by 2020
2021	Notifications and action plans from the Central Committee of the Communist Party of China and the State Council	A combined total of 1.2 billion kW for wind and solar power generation

Source: Marukawa (2025).

5. Electric vehicles

In recent years, it has attracted attention that China's electric vehicle industry has grown rapidly, with production and sales expanding steeply. We will consider the factors underlying the rapid development of China's electric vehicle industry.

After the State Council cited "new energy vehicles" as a "strategic emerging industry" in 2010, the government of China started to provide targeted support to electric vehicles (EVs). Under the Energy Saving and New Energy Vehicle Development Plan, announced in 2012 (the State Council), the government set specific numerical targets for BEVs (battery EVs) and PHEVs (plug-in hybrid EVs)—that is, increasing cumulative production and sales volumes to 500,000 vehicles by 2015 and to 2 million vehicles by 2020. Under this policy, China implemented specific governmental support and regulatory measures, including subsidies for purchases, tax reduction or exemption, subsidies for infrastructure development, a dual credit system, and preferential treatment in number plate allocation. The financial size of those policy support measures is estimated to have been far larger compared with similar measures taken by other countries, although exact data is not available.[242] As for subsidies for purchases, it has been pointed out as a problem that the scope of eligibility for subsidies was limited in such a way that the subsidy program effectively served as a protection scheme for domestic manufacturers. For example, major foreign battery manufacturers were excluded from the list of manufacturers designated as eligible, and this is considered to have been one factor that led to the remarkable rise of Chinese battery manufacturers.[243]

At the same time, it has been mentioned that an industrial development mechanism has been working. First, from around 2014 onward, many entrepreneurs started up electric vehicle venture enterprises, leading to active new market entry. It has also been pointed out that low-speed four-wheel electric vehicles, which had already been mass-produced for some time, formed the foundation of China's EV industry.[244] Active market entry triggered intense competition, sometimes described as excessive competition, not only among manufacturers of finished vehicles but also among parts suppliers. Individual manufacturers aimed to expand market shares through their own strategies. Marukawa observed as follows: "…it cannot be ignored that as a result of increased new entry, various enterprises developed a great variety of EVs meeting various needs, thereby generating the effect of expanding the market for Chinese EVs in and beyond China."[245]

The practice of open trading based on the use of key components of EVs available as modules is also cited as a factor of the development of the EV industry. One key component of EVs is a storage battery, which accounts in large part for the cost and performance of EVs. In this area, specialized manufactures such as CATL are well known. Meanwhile, a motor drive module (comprised of elements such as a motor, an inverter, and a reduction gear) is developed as a package called e-axle and can be produced on a package-by-package basis. Previously, vehicles were described as an integral-type product. However, as in the case of electronic equipment, the shift to a modular approach has made progress, enabling market entry by fabless EV manufacturers, which procure parts from external suppliers and concentrate on developing vehicle design and concept. Indeed, there has been market entry

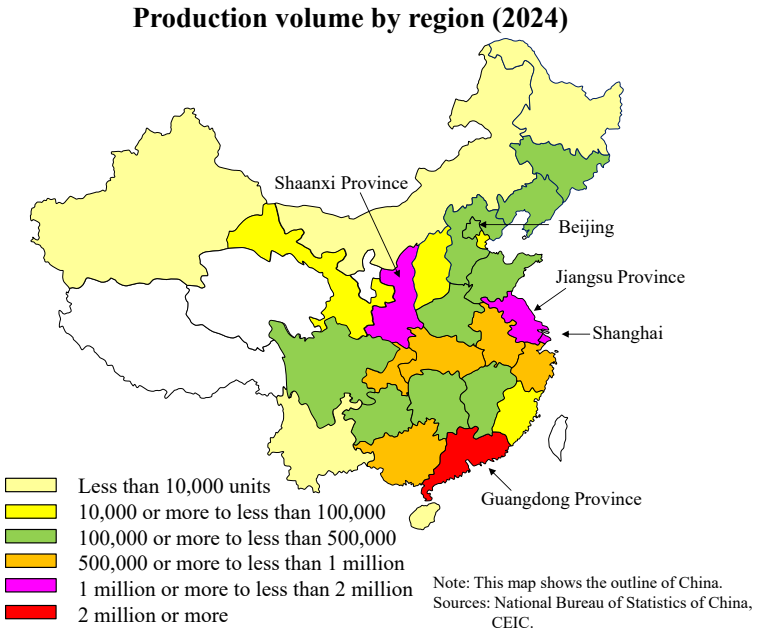
[242] Scott Kennedy, "The Chinese EV Dilemma: Subsidized Yet Striking," *Center for Strategic and International Studies (CSIS) Blog*, June 20, 2024, https://www.csis.org/blogs/trustee-china-hand/chinese-ev-dilemma-subsidized-yet-striking (as viewed on March 31, 2025)
[243] Marukawa (2025)
[244] Kajitani and Takaguchi (2025)
[245] Marukawa (2025)

by enterprises from other industries, including mobile phone makers, such as Huawei and Xiaomi, and Evergrande, a real estate developer.

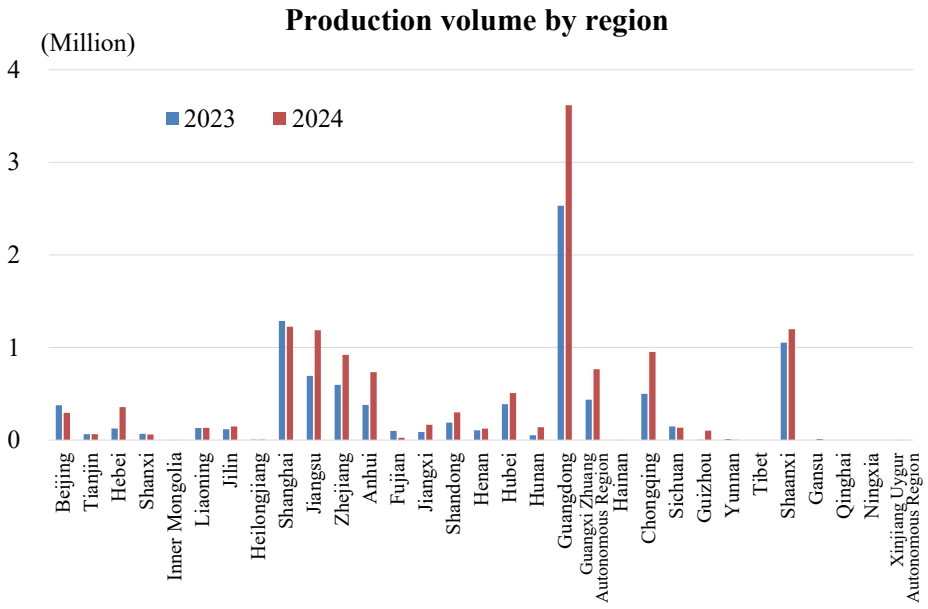
Kajitani and Takaguchi paid attention to the Chinese government's unconventional industrial policies oriented toward demand expansion and to the "economy of saturation" model that arrived as a result of those policies.[246] Government support measures to expand demand, such as subsidies for EV purchases and for the installation of recharging stations, promoted production expansion for EVs and created derivative demand for parts industries, including storage batteries, triggering a rush of market entry that may be described as saturation. The expansion of the parts industries generated the effect of creating industrial clusters, known as the Marshallian externality, leading to price drops for intermediate goods, and that caused price drops for the final product, that is, EVs, and a further expansion of demand. Kajitani and Takaguchi explained that demand expansion measures like those are premised on free trade among enterprises and that they can therefore become effective industrial policy measures different from conventional measures targeted at particular enterprises. They also pointed out that China's industrial policy oriented toward demand expansion that was adopted for EVs may have generated the home market effect, which will be mentioned later, and expanded exports by establishing economies of scale.

Here, let us take a different point of view and look at the geographical distribution of production of new energy vehicles, exports of which have recently been growing rapidly. According to Figure II-2-3-8, which shows vehicle production volume by region, while production volume is large in Guandong Province and Jiangsu Province, where the value of industrial value added is large, EVs are manufactured in most regions. This suggests the possibility that competition among regions to invite EV production may be ongoing at the same time as the development of economies of scale through geographical industrial clustering.

Figure II-2-3-8. Production volume of new energy vehicles by region in China



[246] Kajitani and Takaguchi (2025)



Notes:

1: New energy vehicles include not only electric vehicles but also hybrid vehicles.

2: Statistically, among the municipalities directly under the central government, provinces, and autonomous regions, production volumes for three regions of the Tibet Autonomous Region, Qinghai Province, and Ningxia Hui Autonomous Region were not available in both 2023 and 2024.

Sources: National Bureau of Statistics of China, CEIC.

6. Summary

Above, we looked at an overview of the process of China's industrial development in four sectors, that is, *shanzhai* mobile phones, wind power generation, solar power generation, and EVs. One commonality between the four sectors is that they are all new manufacturing industries that have achieved considerable growth domestically since China's accession to the WTO. However, there are differences across those sectors in terms of how the three elements of industrial mechanisms—China's political-economic models, competition between local governments, and market characteristics—have interacted with each other and how those elements have functioned. However, at the industrial level, regardless of the presence or absence of active policy interventions, the four sectors appear to have the following commonalities: many enterprises entered the market in response to created demand; there is intense competition in the domestic market; a division-of-work system has been adopted and supply chain efficiency has been improved; industrial clusters have been rapidly formed through social implementation and the leaning effect; and economies of scale have been established. It is also possible that whereas the central government launched a policy oriented toward demand expansion for solar power generation as a passive reaction to the shrinkage of foreign demand, it may have strategically employed a similar policy in the case of EVs. At any rate, it may be pointed out that in all of the cases of wind power generation, solar power generation, and EVs, the central government provided policy support through industrial subsidies and regulatory measures at the stage of rapid industrial development.