

# ITA Beijing Machine Tool Desk

## Fourth Period Report

*(March 2025 - May 2025)*

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# China's latest economic dynamics and machine tool industry trends

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- China's economy is showing a steady growth from January to March 2025.
- China's manufacturing industry dynamics from February to April 2025, according to the Purchasing Manager Index (PMI).
- The overall operating income of China's machine tool industry is dropping, despite an increase in the production/consumption value (in the entire year of 2024).
- China's machine tool export is dominated by specialty products, while machine centers ranks top in terms of import (in the entire year of 2024).
- Trade exchange data in the machine tool industry between Italy and China (in the entire year of 2024)

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# In January 2025, China's economy displays a moderate rise in consumer prices, but a general decline in industrial producer prices

## Moderate price increase for most commodities

### By region



National commodity price	+0.5%
Urban	+0.6%
Rural	+0.3%

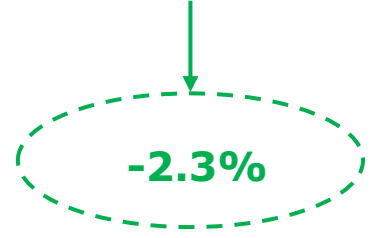
### By product type



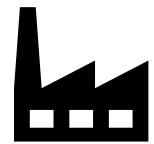
Food & Tobacco & Alcohol	+0.6%
Livestock & Meat	+2.5%
Culture & Entertainment	+1.7%
Transportation	-1.1%
Communication	-0.6%

## General decline in industrial producer prices

National industrial producer price  
(ex-factory and purchasing)



### By producing sector



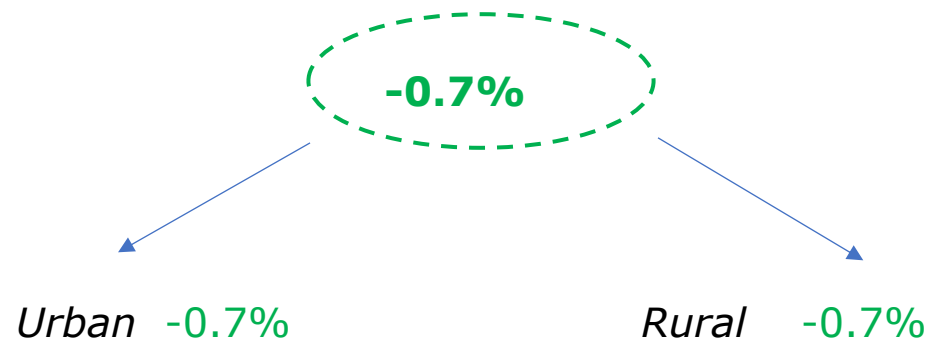
Productive materials	-2.6%
Extractive industry	-4.9%
Processing industry	-2.7%
Daily necessities	-0.5%
Consumer durables	-2.6%

# In February 2025, China's economy experiences an overall decline in commodity prices, and a steady growth in industrial output

## Overall decline in commodity prices

Data in February 2025-

Average commodity prices



### By product category

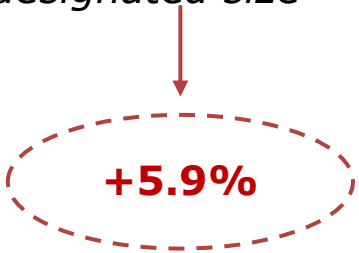


Fresh vegetables	-12.6%
Aquatic products	-3.6%
Clothing	+1.2%
Real estate	+0.1%

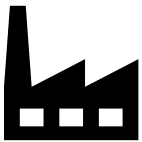
## Steady growth in industrial output

Data (in real terms) from January and February 2025—

Value-added of enterprises above the designated size



### By producing sector



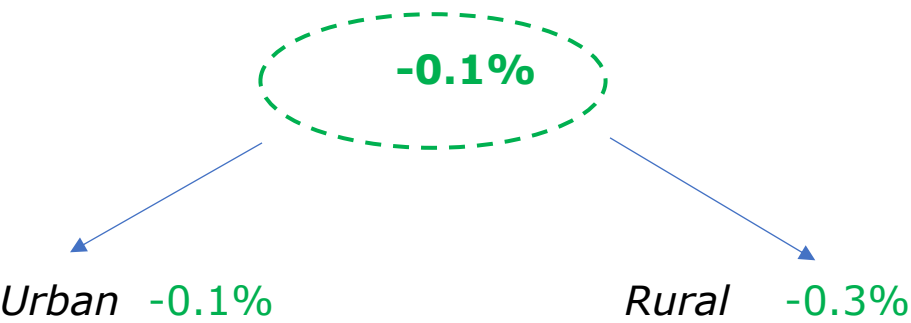
Mining industry	+4.3%
Textile industry	+7.0%
General equipment manufacturing	+9.5%
Aerospace & shipbuilding	<b>+20.8%</b>

# In March 2025, China's economy experiences a moderate decline in food commodity prices, and a steady growth in industrial output

## Overall decline in food commodity prices

Data in March 2025-

Average commodity prices



### By product category



Fresh vegetables	-6.8%	Food commodity
Eggs	-1.6%	
Grains	-1.5%	
Clothing	+1.3%	
Education	+0.8%	
Medical Care	+0.1%	

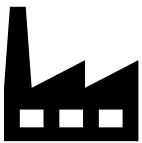
## Steady growth in industrial output

Data In March 2025,

Value-added of enterprises above the designated size

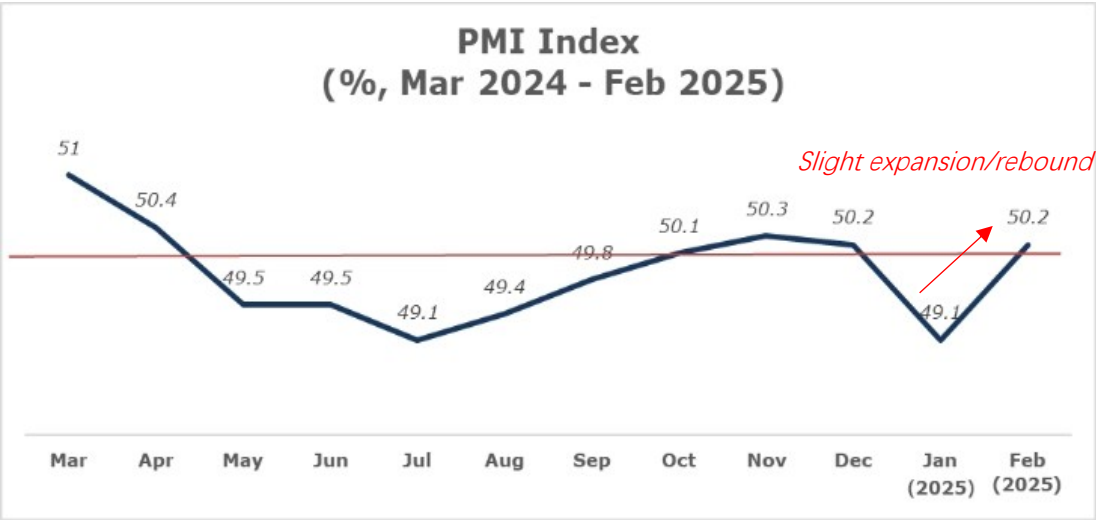


### By the producing sector



Oil & natural gas	+6.8%
Tea & Beverage & Alcohol	+7.3%
General equipment manufacturing	+9.5%
Railway & shipbuilding	+19%
New energy vehicle	<b>+20.8%</b>

# According to the Purchasing Manager Index (PMI) February 2025, China’s manufacturing industry is showing a slight rebound after the contraction in January



*\*Notes: A PMI index over 50 represents growth or expansion within the manufacturing sector compared with the prior month. A reading under 50 represents contraction, and a reading at 50 indicates an equal balance between manufacturers reporting advances and declines in their business.*

## Reasons for the slight rebound

- 1** The rising purchasing prices for the core materials of the manufacturing industry.
- 2** Enterprises (particularly large-scale ones) came back to full operation after the Spring Festival.

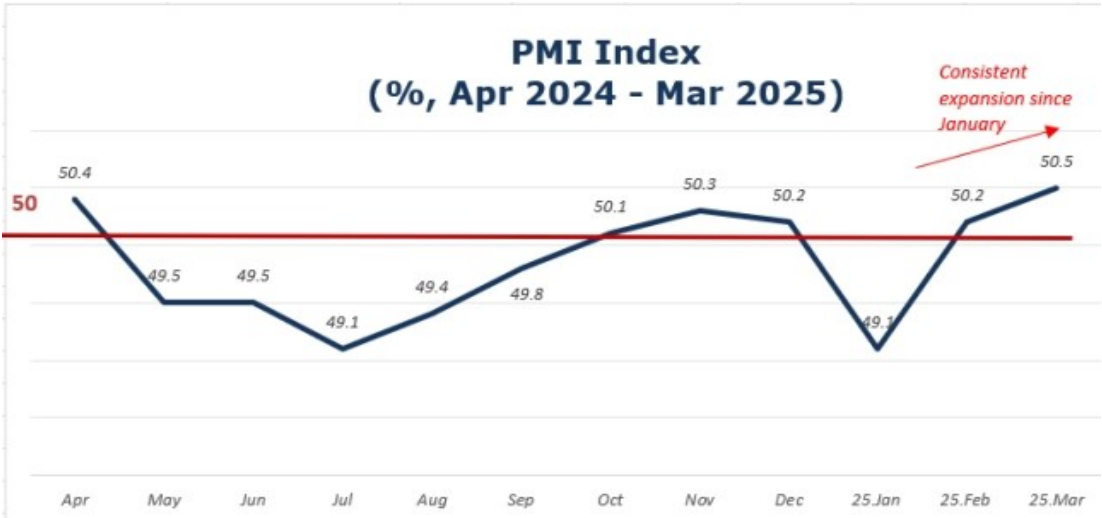
## PMI component indexes (%) of the manufacturing industry

	PMI	Production	New order	Raw material inventory	Employee	Supplier delivery time
Mar 2024	50.8	52.2	53.0	48.1	48.1	50.6
Apr 2024	50.4	52.9	51.1	48.1	48.0	50.4
May 2024	49.5	50.8	49.6	47.8	48.1	50.1
Jun 2024	49.5	50.6	49.5	47.6	48.1	49.5
Jul 2024	49.4	50.1	49.3	49.9	48.3	49.3
Aug 2024	49.1	49.8	48.9	47.6	48.1	49.6
Sep 2024	49.8	51.2	49.9	47.7	48.2	49.5
Oct 2024	50.1	52	50	48.2	48.4	49.6
Nov 2024	50.3	52.4	50.8	48.2	48.2	50.2
Dec 2024	50.2	52.1	51	48.3	48.1	50.9
Jan 2025	49.1	49.8	49.2	47.7	48.1	50.3
Feb 2025	50.2	52.5	51.1	47	48.6	51

- The manufacturing industry was showing a slight rebound, after the contraction in January.
- The production activities of the manufacturing enterprises came back to full operation after the Spring Festival.
- New market order of the manufacturing industry displayed a moderate increase.
- Inventories of raw materials was largely decreasing.
- Unemployment situation of the manufacturing industry was still decreasing.
- The delivery time of raw materials shortened to some degree.



# According to the Purchasing Manager Index (PMI) March 2025, China's manufacturing industry is showing a consistent upward trend since January



*\*Notes: A PMI index over 50 represents growth or expansion within the manufacturing sector compared with the prior month. A reading under 50 represents contraction, and a reading at 50 indicates an equal balance between manufacturers reporting advances and declines in their business.*

## Reasons for the consistent upward trend

- 1
- A rapid expansion in both market demand (New Order Index) and supply (Production Index) of the manufacturing industry, especially in railway, shipbuilding, and aerospace equipment sectors.
- 2
- The operational activities of small-and-medium enterprises are gradually recovering, despite still on a slightly declining trend.

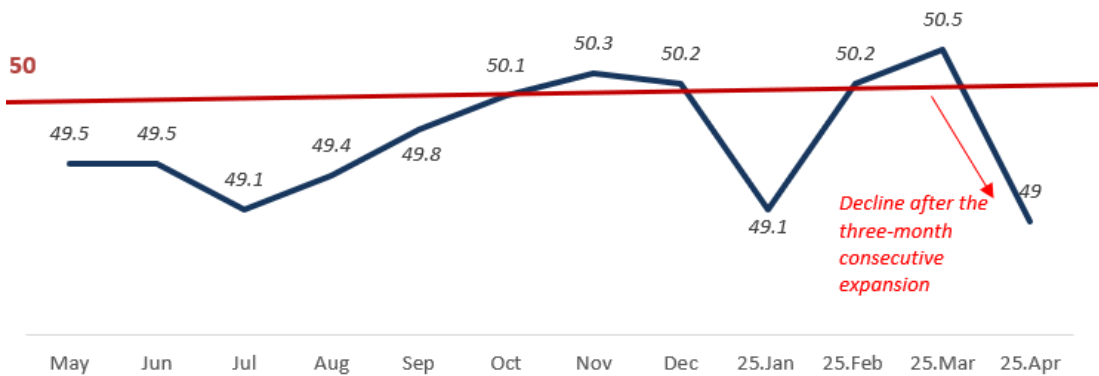
## PMI component indexes (%) of the manufacturing industry

	PMI	Production	New order	Raw material inventory	Employee	Supplier delivery time
Apr 2024	50.4	52.9	51.1	48.1	48.0	50.4
May 2024	49.5	50.8	49.6	47.8	48.1	50.1
Jun 2024	49.5	50.6	49.5	47.6	48.1	49.5
Jul 2024	49.4	50.1	49.3	49.9	48.3	49.3
Aug 2024	49.1	49.8	48.9	47.6	48.1	49.6
Sep 2024	49.8	51.2	49.9	47.7	48.2	49.5
Oct 2024	50.1	52	50	48.2	48.4	49.6
Nov 2024	50.3	52.4	50.8	48.2	48.2	50.2
Dec 2024	50.2	52.1	51	48.3	48.1	50.9
Jan 2025	49.1	49.8	49.2	47.7	48.1	50.3
Feb 2025	50.2	52.5	51.1	47	48.6	51
Mar 2025	50.5	52.6	51.8	47.2	48.2	50.3

- The manufacturing industry was showing a consistent expansion since January.
- The production activities of the manufacturing enterprises was significantly vitalizing.
- New market order of the manufacturing industry displayed a great increase.
- Inventories of raw materials was largely decreasing.
- Unemployment situation of the manufacturing industry was still worsening.
- The delivery time of raw materials shortened to some degree.

# According to the Purchasing Manager Index (PMI) April 2025, China's manufacturing industry is showing a decline after the three-month consecutive expansion

**PMI Index**  
(%, May 2024 - Apr 2025)



*\*Notes: A PMI index over 50 represents expansion within the manufacturing sector compared with the prior month; a reading under 50 represents contraction; and a reading at 50 indicates that the industry size remains unchanged.*

## Reasons for the expansion

- 1** China's new export order (to the USA) is decreasing drastically with the imposition of tariffs by the Trump Administration.
- 2** China's new import order (from the USA) is also decreasing drastically due to the retaliatory tariff imposed by the Chinese government and the domestic substitution policy agenda.

**PMI component indexes (%) of the manufacturing industry**

	PMI	Production	New order	Raw material inventory	Employee	Supplier delivery time
Apr 2024	50.4	52.9	51.1	48.1	48.0	50.4
May 2024	49.5	50.8	49.6	47.8	48.1	50.1
Jun 2024	49.5	50.6	49.5	47.6	48.1	49.5
Jul 2024	49.4	50.1	49.3	49.9	48.3	49.3
Aug 2024	49.1	49.8	48.9	47.6	48.1	49.6
Sep 2024	49.8	51.2	49.9	47.7	48.2	49.5
Oct 2024	50.1	52	50	48.2	48.4	49.6
Nov 2024	50.3	52.4	50.8	48.2	48.2	50.2
Dec 2024	50.2	52.1	51	48.3	48.1	50.9
Jan 2025	49.1	49.8	49.2	47.7	48.1	50.3
Feb 2025	50.2	52.5	51.1	47	48.6	51
Mar 2025	50.5	52.6	51.8	47.2	48.2	50.3
Apr 2025	49	49.8	49.2	47	47.9	50.2

- The manufacturing industry was showing a decline after the three-month consecutive expansion.
- The production activities of the manufacturing enterprises was slightly dwindling down.
- New market order of the manufacturing industry decreased to some extent.
- Inventory of raw materials was largely decreasing.
- Unemployment situation of the manufacturing industry was still worsening.
- The delivery time of raw materials shortened by a small margin.

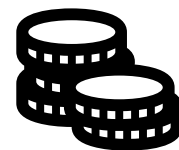
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# The overall operating income of China's machine tool industry is dropping, despite an increase in the production/consumption value (in the entire year of 2024)

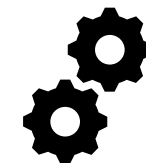
Total operating income	<b>1047 billion yuan</b>	<b>-5.2%</b>
Total profit	<b>26.5 billion yuan</b>	<b>-76.6%</b>
Profit margin	<b>2.6%</b>	

*The total operating income and profit are significantly dropping, narrowing down the profit margin.*



*Both production and consumption value of metal-processing machine tools are rising.*

Production value of metal-processing machine tools	<b>+5.1%</b>
Consumption value of metal-processing machine tools	<b>+1.4%</b>



Total import & export of machine tools	<b>-0.3%</b>
Import of machine tools	<b>-8.6%</b>
Export of machine tools	<b>+0.4%</b>

*China's machine tool industry is becoming more export-oriented, with a rise in export and a significant decline in import.*



# China's machine tool export is dominated by specialty products, while machine centers ranks top in terms of import (in the entire year of 2024)

China's top 5 exported/imported machine tool product categories (in value) --

EXPORT			IMPORT		
	Category	Value (in 100 million USD)		Category	Value (in 100 million USD)
1	Specialty products	23.3		Machine centers	18.8
2	Lathes	8.1		Specialty machine tools	8.3
3	Machine centers	8.1		Grinding machines	8.3
4	Forming and bending machines	7.2		Gear processing lathes	5.5
5	Cold metal working presses	5.6		Lathes	5



# Trade exchange data in the machine tool industry between Italy and China (in the entire year of 2024)

Italy's machine tool exports and imports worldwide (in millions of euro, Jan-Dec 2024)

	Export			Import		
	Value	YOY change 2023-2024	Percentage Share	Value	YOY change 2023-2024	Percentage Share
Asia	736.7	+4.6%	18.7%	291.3	- 41.5%	27.0%
Oriental Asia	314.8	-13.8%	8.0%	282.4	- 41%	26.1%
China	240	-16.3%	6.1%	71	-14.2%	6.6%
Worldwide Total	3938.4	+1.0%		1080.3	-38.4%	

Italy's machine tool exports and imports with China by category (in millions of euro, Jan-Dec 2024)

*Marked blue are the respective indicators for worldwide total*

		Value	YOY change	Share of worldwide total
Metal-cutting machine tools	Export	177.3 (3968.4)	-14.7% (+1.0%)	10.6%
	Import	27.6 (65.2)	-18.7% (-42.0%)	3.9%
Metal-forming machine tools	Export	45.2 (350.4)	-7.9% (-15.2%)	2.5%
	Import	15.3 (182.1)	-11.4% (-37.1%)	7.7%
Non-conventional technology machine tools	Export	17.3 (400.2)	- 41.0% (+7.5%)	3.9%
	Import	27.9 (152.8)	-11.1% (-42.3%)	16.6%

## Key takeaways

*From January to December 2024,*

- ❑ Italy's machine tool import (from both worldwide and Asia) **reduced by almost a half**. In terms of **machine tool export**, Italy was pivoting the focus from Oriental Asia (China, Japan, South Korea) into **"Global South" countries**.
- ❑ Italy's machine tool trade with China was significantly **falling for all product categories**, with **Italy's export of non-conventional technology machine tools dropping the most**, and import/export of metal-forming machine tools displaying a relatively moderate decline.

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# Regional analysis of China's machine tool industry

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- The majority of machine tool enterprises in South China (primarily Guangdong) are privately-owned and operating in the middle-to-low-end market segments.
- Upstream industries of machine tools in South China (by province).
- Downstream industries of machine tools in South China (by sector).
- North China (华北) heavily relies on traditional industries such as steel, coal and non-ferrous metal, but high-end manufacturing is booming in Beijing-Tianjin-Hebei (京津冀) Region.
- Northeast China (东北) also heavily relies on traditional industries such as general equipment manufacturing, mining and natural gas & coal & oil processing; and is now pivoting to emerging industries like new energy, AI and robotics.
- North China and Northeast China collectively accounted for approximately 17% of the national GDP in 2024.
- Major machine tool players in North and Northeast China.
- Upstream industries of machine tools in North/Northeast China.
- Downstream industries of machine tools in North/Northeast China.
- West China (中国西部 or 华西) is characterized by both traditional heavy industries and emerging industries such as electronic information and automobile manufacturing.
- Upstream industries of machine tools in West China.
- Downstream industries of machine tools in West China.



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# The majority of machine tool enterprises in South China (primarily Guangdong) are privately-owned and operating in the middle-to-low-end market segments

During the era of planned economy (1953-1978), little attention was paid to South China (Guangdong) by state-owned machine tool enterprises, resulting in a relatively weak industry foundation. Today, machine tool enterprises in South China (Guangdong) are mostly serving general civilian products and rough machining parts, lacking the demand for high-end machine tools (most machine tool enterprises are privately-owned).

Major domestic players in South China (Guangdong)

Company name	Location	Main products
Guangdong Create Century Intelligent Equipment Group Corporation Limited	Guangdong	<ul style="list-style-type: none"><li>Focus on the R&amp;D and production of middle-to-high-end CNC machine tools, especially five-axis linkage machining centers.</li></ul>
Guangzhou Machine Tool Works Co., Ltd.	Guangdong	<ul style="list-style-type: none"><li>Founded in 1958 as the largest CNC machine tool manufacturer in South China.</li><li>Main products include (middle-to-low-end) gantry machining center, vertical &amp; horizontal machining center, turning center, CNC lathe, etc.</li></ul>
GSK CNC Equipment Co., Ltd.	Guangdong	<ul style="list-style-type: none"><li>The leading enterprise in the R&amp;D and manufacturing of CNC machine tool systems and industrial robots in China.</li><li>Main products include servo drives, servo motors, CNC systems for machine tools, etc.</li></ul>

Company name	Location	Main products
Guangdong Harvest Star Technology Co., Ltd.	Guangdong	<ul style="list-style-type: none"><li>Main products include (middle-to-low-end) drilling &amp; tapping machining centers, vertical &amp; horizontal machining centers, gantry machining centers, engraving &amp; milling machining centers, profile machining centers, portal vertical machining centers, etc.</li></ul>
Guangzhou Hachi CNC Equipment Co.Ltd	Guangdong	<ul style="list-style-type: none"><li>Specialize in the production of high-end intelligent CNC machine tools such as high-precision CNC composite profile machining center, CNC gantry machining center, five axis linkage profile machining centers, etc.</li></ul>

# Upstream industries of machine tools in South China (by province)

Province	Performance in main machine tool upstream industries
Guangdong	<ul style="list-style-type: none"> <li>▪ In a leading position in China's precision parts industry, with an industrial cluster containing cities like Guangzhou, Shenzhen, and Dongguan; most companies in the industry are privately owned; with an integrated and complete supply chain.</li> <li>▪ Guangdong is laying forth policies (Action Plan for Cultivating Strategic Emerging Industry Clusters for High-end Equipment Manufacturing) to promote the R&amp;D and production of key machine tool components such as high-end CNC systems, laser rotary cutting heads, and high-speed &amp; high-precision electric spindles.</li> </ul>
Guangxi	<ul style="list-style-type: none"> <li>▪ The upstream industries of machine tool products are still in the early stage, with high-end manufacturing relying on the supply of external resources and core technologies remaining weak.</li> </ul>
Hainan	<ul style="list-style-type: none"> <li>▪ A weak industrial base and small market size for the upstream industries.</li> <li>▪ Hainan province's 14<sup>th</sup> five-year-plan stimulates a number of upstream industries such as precision machinery parts; the Free Trade Port policy initiative provides support to attract foreign-invested enterprises (and boost technological innovation).</li> </ul>

# Downstream industries of machine tools in South China (by sector)

Sector	Geographical features
Automotive	<ul style="list-style-type: none"> <li>The largest automobile industry base in China's south cluster is located in Guangdong (Guangzhou, Shenzhen, Foshan).</li> <li>Guangdong's new energy vehicle production reached 3.6178 million units in 2024 (a year-on-year increase of 43%), accounting for about 1/4 of the country's total production.</li> </ul>
Mold	<ul style="list-style-type: none"> <li>The mold manufacturing industry in the south cluster (particularly Guangdong) is in the leading position in China, with a tremendous edge in plastic and hardware molds.</li> <li>Guangdong's mold manufacturing industry is dominated by small-and-medium-sized enterprises.</li> </ul>
3C	<ul style="list-style-type: none"> <li>The smartphone production in Guangdong accounts for more than 40% of the country's total, with the output of some other products like home appliances and electronic information ranking top in the world.</li> </ul>
Aerospace	<ul style="list-style-type: none"> <li>China's south cluster still lags behind other regions e.g. Beijing, Shaanxi, Sichuan, Liaoning, in the aerospace industry.</li> <li>By 2026, Guangdong plans to build the world's leading low-altitude industry, and the size of the low-altitude economy (economic activities and industries centered around manned and unmanned aerial vehicles operating in airspace typically below 1,000 meters (3,280 feet) above ground such as drone deliveries for goods and food) is expected to exceed 300 billion yuan.</li> </ul>

Sector	Geographical features
Shipbuilding	<ul style="list-style-type: none"> <li>Guangdong Longxue Shipbuilding Co., Ltd, one of the three major shipbuilders in China, is based in Guangzhou.</li> <li>Jiangmen city is the second largest shipbuilding base in Guangdong, specializing in medium-sized ships and offshore engineering equipment.</li> <li>South China cluster is facing the fierce competition from the traditional shipbuilding provinces, such as Jiangsu and Zhejiang.</li> </ul>
Construction Machinery	<ul style="list-style-type: none"> <li>The construction machinery industry in South China cluster is in the front (despite not leading) position in the country.</li> </ul>
Metallurgy	<ul style="list-style-type: none"> <li>The metallurgical industry in China's south cluster is relatively weak with a low rate of steel self-sufficiency.</li> </ul>

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# North China (华北) heavily relies on traditional industries such as steel, coal and non-ferrous metal, but high-end manufacturing is booming in Beijing-Tianjin-Hebei (京津冀) Region

PRVOINCE	SUMMARY
Beijing	<ul style="list-style-type: none"><li>▪ The economic center in North China, with a GDP of 4.98 trillion in 2024.</li><li>▪ A key base for China's high-tech industry, accomidating many national-level engineering research centers, laboratories, and incubators.</li></ul>
Tianjin	<ul style="list-style-type: none"><li>▪ Another economic center in North China, with a GDP growth rate of 5.1% in 2024.</li><li>▪ Tianjin Economic-Technological Development Area (TEDA), one of China's earliest national-level economic development zones, focuses on the transformation of automobile, green energy, health and IT sectors.</li></ul>
Hebei	<ul style="list-style-type: none"><li>▪ Hebei Province's GDP grew by 5.4% in 2024.</li><li>▪ Tangshan, the city with the largest GDP in Hebei Province, is famous for steel, high-end equipment manufacturing, and trade &amp; logistics; and Shijiazhuang is developing a new generation of electronic and biomedical products.</li></ul>
Shanxi	<ul style="list-style-type: none"><li>▪ Main industrial sectors include coal, general equipment manufacturing and new material.</li><li>▪ Nowadays, Shanxi is transforming the traditional coal industry into clean energy industry.</li></ul>
Inner Mongolia	<ul style="list-style-type: none"><li>▪ Main industrial sectors include dairy, rare earth, and coal chemistry.</li></ul>

**Northeast China (东北) also heavily relies on traditional industries such as general equipment manufacturing, mining and natural gas & coal & oil processing; and is now pivoting to emerging industries like new energy, AI and robotics**

PROVINCE	SUMMARY
Heilongjiang	<ul style="list-style-type: none"><li>▪ <i>Focus on the development of digital economy, bio-industry, modern agriculture, equipment manufacturing, and oil &amp; gas processing.</i></li></ul>
Jilin	<ul style="list-style-type: none"><li>▪ <i>Automobile is one of Jilin's pillar industries, accomodating many famous brands (most under China FAW Group).</i></li></ul>
Liaoning	<ul style="list-style-type: none"><li>▪ <i>Boast a strong industrial base in areas such as general equipment manufacturing, petrochemicals, fine chemical, metallurgy, new materials and marine engineering.</i></li></ul>

# North China and Northeast China collectively accounted for approximately 17% of the national GDP in 2024

Province/city	2024 GDP (100 million RMB)	Proportion of national GDP	
Beijing city	49843	3,72%	
Tianjin city	18024	1,34%	
Hebei	47527	3,55%	
Shanxi	25495	1,90%	
Inner Mongolia	26315	1,96%	
Liaoning	32613	2,43%	
Jilin	14361	1,07%	
Heilongjiang	16477	1,23%	

**North China**

12.47% of the national GDP

**Northeast China**

4.73% of the national GDP



# Major machine tool players in North and Northeast China

Company	Location	Background
<b>Genertec Shenyang Machine Tool Co., Ltd</b> 	Liaoning	<ul style="list-style-type: none"> <li>Founded in 1993 and listed on the Shenzhen Stock Exchange in 1996, Genertec Shenyang Machine Tool Co.,Ltd produced the first lathe, drilling machine, boring machine and CNC machine tool in China.</li> </ul>
<b>Genertec Dalian Machine Tool Co., Ltd.</b> 	Liaoning	<ul style="list-style-type: none"> <li>Formerly known as Dalian Machine Tool Group Co.,Ltd, this company was founded in 1948 and is one of the first machine tool manufacturers in China.</li> </ul>
<b>Genertec Qiqihar No.2 Machine Tool (Group) Co., Ltd.</b> 	Heilongjiang	<ul style="list-style-type: none"> <li>As a leading enterprise in China's heavy machine tool industry, Genertec Qiqihar No.2 Machine Tool (Group) Co.,Ltd was founded in 1950 and is one of the first backbone machinery enterprises during the "First Five-Year-Plan" period.</li> </ul>

Company	Location	Background
<b>Beijing No.1 Machine Tool Co. Ltd.</b> 	Beijing	<ul style="list-style-type: none"> <li>Founded in 1949, Beijing No.1 Machine Tool Co.,Ltd is a state-owned enterprise for high-end CNC machine tool manufacturing.</li> </ul>
<b>Beijing Jingdiao Group Co. Ltd.</b> 	Beijing	<ul style="list-style-type: none"> <li>Founded in 1994, Beijing Jingdiao Group is a high-tech enterprise specializing in the R&amp;D, engineering design, production and sales of precision CNC machine tools.</li> </ul>
<b>Tianjin Tianduan Press Co., Ltd.</b> 	Tianjin	<ul style="list-style-type: none"> <li>Tianjin Tianduan Press Co.,Ltd belongs to China General Technology Group, and is under the direct management of the Central Government.</li> <li>Tianduan was founded in Tianjin in 1956, and is the birthplace of the first hydraulic press in China.</li> </ul>
<b>Tianjin No. 1 Machine Tool Co., Ltd.</b> 	Tianjin	<ul style="list-style-type: none"> <li>Established in 1951, Tianjin No.1 Machine Tool Co.,Ltd focuses on the development of gear-making machines, special-purpose grinding machines, and precise gear manufacturing technologies.</li> </ul>

# Major machine tool players in North and Northeast China - continued

*Geographical distribution of major machine tool enterprises in North and Northeast China*



Source: ITA Machine Tool Desk, In3act Analysis

# Upstream industries of machine tools in North/Northeast China

Upstream industries	Regional market performance
Precision parts	<i>The development of precision parts in North/Northeast China is quite limited, largely behind that of East China.</i>
Functional parts	<i>The functional parts industry in North/Northeast China is relatively weak and mainly relies on the supply from East China.</i>
CNC system	<i>Despite the fact that most regions in North/Northeast China are lagging behind in CNC system industry, Beijing, as a center for technological innovation, has several CNC system companies with cutting-edge R&amp;D capabilities, such as Beijing Jingdiao Group Co.,Ltd. and Beijing KND CNC Technology Co., Ltd.</i>
Castings	<i>The casting industry (mostly producing large castings) in North/Northeast China mainly concentrates in Tianjin and Hebei.</i> <i>Tianjin—with a strong industry chain, especially in the field of automobile part castings.</i> <i>Hebei—Handa and Cangzhou show robust competitiveness in the field of traditional casting.</i>

# Downstream industries of machine tools in North/Northeast China

Sector	Geographical features
<b>Automotive</b>	<i>Beijing-Tianjin-Hebei cluster—The automotive industry has a large size, driving up the demand for machine tools.</i>
	<i>Northeast China—The automobile industry is concentrated in Jilin Province, represented by FAW Group. Jilin Province is actively promoting the transformation from tradition automobiles to new energy vehicles.</i>
<b>Mold</b>	<i>The traditional mold industry in North/Northeast China is gradually developing in the direction of precision and digitalization, despite still far behind East China.</i>
	<i>Beijing— mainly produce high-end precision molds (applied in high-tech fields such as aerospace and electronic information).</i>
	<i>Tianjin-- mainly produce molds for automobile manufacturing.</i>
<b>3C</b>	<i>North China—the 3C electronics industry is relatively developed, especially in Beijing and Tianjin, with a number of high-tech electronic companies such as Lenovo and Xiaomi; drive up the demand for high-end machine tools.</i>
	<i>Northeast China—the 3C electronics industry is relatively weak and concentrated in cities such as Shenyang and Dalian (Liaoning); drive up the demand for mid-to-low-end machine tools.</i>
<b>Aerospace</b>	<i>North China—the aerospace industry is robust. Beijing has many aerospace research institutes and enterprises, driving up the demand for high-precision machine tools.</i>
	<i>Northeast China—the aerospace industry is concentrated in Shenyang and Harbin, mainly producing aerospace engines and functional parts.</i>

# Downstream industries of machine tools in North/Northeast China - continued

Sector	Geographical features
<b>Shipbuilding</b>	<p><i>North China—The shipbuilding industry mainly concentrates in coastal regions such as Tianjin and Hebei.</i></p> <p><i>Northeast China—a traditional shipbuilding base in China; Dalian (Liaoning) harbor is one of the most important ship ports in China.</i></p>
<b>Construction machinery</b>	<p><i>North China—the construction machinery industry is mainly concentrated in Hebei and Shanxi.</i></p> <p><i>Northeast China—a traditional heavy industry base in this region for the development of the construction machinery industry; a number of large-scale construction machinery companies in Harbin, Qiqihar and other places (Heilongjiang), driving up the demand for heavy machine tools.</i></p>
<b>Metallurgy</b>	<p><i>North China—the metallurgy industry is well-developed, especially in Tangshan and Handan (Hebei).</i></p> <p><i>Northeast China—there are many old metallurgy/steel companies such as Anshan Iron and Benxi Iron &amp; Steel.</i></p>

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# West China (中国西部 or 华西) is characterized by both traditional heavy industries and emerging industries such as electronic information and automobile manufacturing

PROVINCE	SUMMARY
Sichuan	<ul style="list-style-type: none"><li>▪ Sichuan Province's GDP in 2024 ranked fifth across China, behind Guangdong, Jiangsu, Shandong, and Zhejiang.</li><li>▪ Sichuan has a well-developed industrial system, covering sectors such as electronic information, energy, chemical engineering, and intelligent machine tool manufacturing</li></ul>
Guizhou	<ul style="list-style-type: none"><li>▪ Dominated by resource-based industries (e.g. aluminum), with new industries (e.g. clean energy, batteries, advanced materials) on a booming trend.</li></ul>
Yunnan	<ul style="list-style-type: none"><li>▪ Dominated by traditional industries such as lead, zinc, tobacco, and phosphate fertilizer.</li></ul>
Shannxi	<ul style="list-style-type: none"><li>▪ With a concentration of industries such as national defense, science &amp; technology, aerospace and weaponry.</li><li>▪ Well-known machine tool companies such as Qinchuan Machine Tool, ShaanXi Machine Tool Factory, and Hanchuan Machine Tool Factory are located in Shannxi.</li></ul>
Gansu	<ul style="list-style-type: none"><li>▪ With robust equipment manufacturing and the non-ferrous metals industry, such as nickel and rare earth.</li></ul>

# West China (中国西部 or 华西) is characterized by both traditional heavy industries and emerging industries such as electronic information and automobile manufacturing - continued

PROVINCE	SUMMARY
Qinghai	<ul style="list-style-type: none"><li>▪ <i>Endowed with lithium and rare-earth resources from the salt lakes, Qinghai has well-developed new energy (e.g. photovoltaic, wind power) and non-ferrous metal industries.</i></li></ul>
Tibet	<ul style="list-style-type: none"><li>▪ <i>With outstanding advantages in hydropower electricity, agriculture, husbandry, and plateau-specific medicine industries.</i></li></ul>
Ningxia	<ul style="list-style-type: none"><li>▪ <i>Industries such as wind power, photovoltaics, and new materials (silicon materials, carbon-based materials) are growing rapidly.</i></li><li>▪ <i>The value-added of the high-tech manufacturing industry increased by 44.5% year-on-year in 2023</i></li></ul>
Xinjiang	<ul style="list-style-type: none"><li>• <i>Xinjiang has been experiencing a rapid development of oil, natural gas, coal, and new energy (wind, solar) industries, benefiting from the rich energy resources.</i></li></ul>
Chongqing	<ul style="list-style-type: none"><li>• <i>An important industrial base in the Southwestern Region, with large-scale automobile and electronic information industries.</i></li><li>• <i>Chongqing is in the leading position of the machine tool industry in West China. In 2024, the German Liebherr Group (machine tool producer) set up an office in Chongqing, as the headquarter in China.</i></li></ul>



# Upstream industries of machine tools in West China

Upstream Industries	Regional market performance
<b>Precision parts</b>	<ul style="list-style-type: none"> <li><i>Sichuan &amp; Chongqing: Leading in precision parts manufacturing, for the downstream advanced automotive and aerospace industries.</i></li> <li><i>Shaanxi: Strong in aerospace-grade precision parts, attributed to Xi'an's research institutes and the need for national defense.</i></li> <li><i>Yunnan &amp; Guizhou: Catering to the precision machining needs for the downstream 3C and medical equipment products (the scale of the precision parts industry is still limited).</i></li> <li><i>Sichuan: A major production hub for functional parts like bearings and transmission systems, catering to the downstream demands of the automotive and robotics industries.</i></li> </ul>
<b>Functional parts</b>	<ul style="list-style-type: none"> <li><i>Chongqing: Specializing in hydraulic components and sensors, to be applied in construction machinery and NEVs.</i></li> <li><i>Gansu &amp; Xinjiang: A focus on the functional parts for heavy machinery and metallurgical equipment.</i></li> </ul>
<b>CNC system</b>	<ul style="list-style-type: none"> <li><i>Sichuan &amp; Shaanxi: Core regions for the R&amp;D of CNC system. Tech parks in Mianyang and Chengdu (Sichuan) are advancing AI-powered CNC systems, while universities in Xi'an are at the forefront of aerospace automation.</i></li> <li><i>Chongqing: Rapid growth in smart CNC systems for automotives, supported by the national intelligent manufacturing initiatives.</i></li> <li><i>Other provinces have limited local development of CNC systems and rely on imports instead.</i></li> </ul>
<b>Castings</b>	<ul style="list-style-type: none"> <li><i>Gansu: A national leader in non-ferrous metal castings (e.g., aluminum, titanium), supplying to the aerospace and national defense sectors.</i></li> <li><i>Xinjiang &amp; Ningxia: Dominant in iron and steel castings for the manufacturing of construction machinery and energy equipment.</i></li> <li><i>Yunnan &amp; Guizhou: Specializing in silicon-based castings for electronics and solar industries.</i></li> </ul>

# Downstream industries of machine tools in West China

Sector	Geographical features
Automotive	<ul style="list-style-type: none"><li>• <i>Chengdu &amp; Chongqing: The Chengdu-Chongqing Economic Circle is a major automotive hub in China, focusing on intelligent NEVs, battery supply chains, and software innovation. In 2023, this region produced 3.29 million units of vehicles, accounting for 10.9% of China's total vehicle output.</i></li><li>• <i>Shannxi: Strong in heavy-duty vehicles, auto parts, and precision molds.</i></li><li>• <i>Yunnan: Yunnan is developing the new energy vehicle industry (together with automotive components and batteries).</i></li></ul>
	<ul style="list-style-type: none"><li>• <i>Shannxi: Heavy investment in precision molds for the automotive sector.</i></li><li>• <i>Sichuan &amp; Chongqing: Heavy investment in prevision molds for the automotive and electronic sectors.</i></li></ul>
	<ul style="list-style-type: none"><li>• <i>Sichuan &amp; Chongqing: Emerging as 3C manufacturing hubs with a growing ecosystem of R&amp;D centers and downstream buyers, attracting investments from major market players such as Foxconn.</i></li></ul>

# Downstream industries of machine tools in West China - continued

Sector	Geographical features
<b>Aerospace</b>	<ul style="list-style-type: none"> <li>▪ <i>Shannxi: Historical foundations in the aerospace industry (especially in Xi'an), with significant R&amp;D and manufacturing capabilities.</i></li> <li>▪ <i>Sichuan: A key aerospace base, accommodating major aerospace enterprises/research institutes such as Chengdu Chengfei Construction Co.,Ltd.</i></li> <li>▪ <i>Tibet: Focus on the high-altitude aviation technology (especially for civil use), with ongoing development in airport infrastructure, route networks, and fleet modernization, e.g. COMAC C919 and ARJ21</i></li> </ul>
<b>Construction machinery</b>	<ul style="list-style-type: none"> <li>▪ <i>Chongqing &amp; Sichuan: Strong construction machinery manufacturing bases, represented by enterprises such as Sichuan Construction Machinery (Group) Co., Ltd.</i></li> <li>▪ <i>Ningxia: A focus on intelligent and green manufacturing, represented by emerging enterprises such as Ningxia KOCEL Group.</i></li> <li>▪ <i>Xinjiang &amp; Gansu: Strong industrial base for construction machinery, often linked to resource extraction and infrastructure building projects.</i></li> </ul>
<b>Metallurgy</b>	<ul style="list-style-type: none"> <li>▪ <i>Gansu: A long-standing non-ferrous metallurgy industry. The industry is large and modernizing but still faces challenges in moving up the value chain.</i></li> <li>▪ <i>Xinjiang: Metallurgy, particularly the processing of iron, steel, and coal, is the pillar industry in Xinjiang.</i></li> <li>▪ <i>Ningxia: By leveraging local coal and mineral resources, new materials and metallurgy are the key growth sectors in the region.</i></li> </ul>

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# Up/Downstream sectors of machine tools

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- Functional parts, as a major upstream application of machine tools, consists of tool magazines, gears, milling heads, tool holders, CNC turntables.
- Geographical distribution of functional parts enterprises in China.
- CNC rotary table and tool magazine suppliers need to fit in with China's market trends to be profitable.
- China's numerical control system industry is displaying a steady growth and gradual transformation.
- Enterprise geographical distribution of the numerical control system industry in China.
- China's casting parts industry can be characterized by three key phrases: output domination, mid-to-low-end products, and self-reliance & localization.
- Leading market players of China's casting parts industry.
- China's casting parts industry size remained roughly stable in the past few years, according to the China Foundry Association.
- According to IMARC, China's casting parts industry is estimated to display a steady growth from 2025 to 2033.

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# Functional parts, as a major upstream application of machine tools, consists of tool magazines, gears, milling heads, tool holders, CNC turntables

Tool magazine	Ensure the precision, automation and efficiency of machine tools by quickly replacing tools and reducing downtime.
Gear	Ensure the accuracy of power transmission.
Milling head	Determine the quality of the cutting process.
Tool holder	Affect the stability and accuracy of the machine tool.
CNC turntable	Realize multi-angle high-precision processing.



*The turntable (especially five-axis turntable) is an important part of multi-axis machining centers, which can realize the processing of complex curved surfaces, multi-angle bevel operations, and multi-faceted processing in one clamping. It significantly improves the processing accuracy and efficiency while reducing the clamping error.*



*Tool magazine directly affects the automation level and processing efficiency of machine tools. An efficient and stable tool magazine system can quickly replace tools and reduce downtime. It is one of the core components of CNC machine tools to improve productivity.*

# Geographical distribution of functional parts enterprises in China

Company	HQ location (China office)	Main products	Country of Origin
GSA+ Xuyang Precision Machinery (Jiashan) Co., Ltd. 	Zhejiang	Turntable	Taiwan (China)
Shanghai Tanshing Enterprise Co., Ltd. 	Shanghai	Turntable	Taiwan (China)
Kitagawa Corporation (Shanghai) 	Shanghai	Turntable	Japan
TSUDAKOMA Wujiang Office Suzhou 	Jiangsu	Turntable	Japan
Shanghai Detron Industrial Automation Co., Ltd. 	Shanghai	Turntable	Taiwan (China)
Sandvik Coromant 	Shandong	Tool magazine	Sweden
Kennametal (China) Co., Ltd. 	Tianjin	Tool magazine	America

Company	HQ location (China office)	Main products	Country of Origin
Iscar International Trading (Shanghai) Co., Ltd. 	Shanghai	Tool magazine	Israel
Mitsubishi Materials Management (Shanghai) Co., Ltd. 	Shanghai	Tool magazine	Japan
Kesler (Shanghai) Machine Tool Spindle Maintenance Co., Ltd 	Shanghai	Tool magazine	Germany



Source: ITA Machine Tool Desk, In3act Analysis



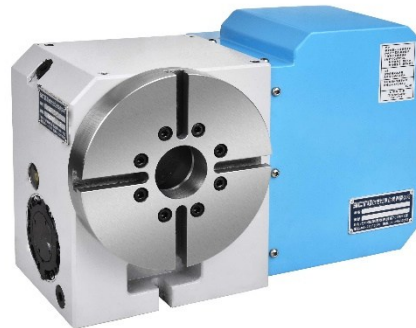
# CNC rotary table and tool magazine suppliers need to fit in with China's market trends to be profitable

## CNC rotary table

According to the research of LP Information (an institute based in China), in 2021, the sales revenue of the CNC rotary tables in China **reached out 543.2 million USD, and is expected to reach 1,116.8 million in 2028 (displaying a CAGR of 10.47%)**.

Future trends of China's CNC rotary table market--

- ✓ **Increasing competitiveness of domestic products:** At present, the production of high-end CNC rotary tables still relies heavily on foreign enterprises, but with the technology advancement of local manufacturers, made-in-China CNC rotary tables are expected to become increasingly competitive and gradually replace foreign products.
- ✓ **Application in high-end machining fields:** with the rising demand for high-end downstream products such as five-axis CNC machine tools, the application of CNC rotary tables in high-end machining fields, such as aerospace and automobile, will be expanded.



## Tool magazine

Future trends of China's tool magazine market—

- ✓ With increasing focus on machine tool flexibility, reliability, and efficiency, tool magazine producers are **pursuing faster tool changing speeds, greater tool capacity, and enhanced durability**.
- ✓ The growing needs for five-axis machining and complex components production are driving up the market for **sophisticated tool management systems**, which are capable of handling intricate geometries and optimizing tool usage.



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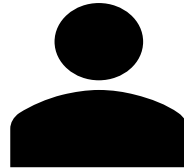
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# China's numerical control system industry is displaying a steady growth and gradual transformation

## Current industry Status

China's market size of numerical control system reached **27.38 billion RMB (3.9 billion USD) in 2023**, displaying a **CAGR of 6.18%** over the past five years.

--China Commercial Industry Research Institute



In 2023, China's numerical control system industry is **dominated by foreign brands**, with **FANUC (Germany)** taking the lead registering a market share of 37%, followed by **Mitsubishi (Japan)** registering a market share of 17%.

--Qian Zhan (a China-based thinktank)



## Trends of transformation

### Targeting mid-to-high-end market

*Rapid development in technology innovation, cost advantages, and after-sales service.*

### Hybrid manufacturing approach

*Combining CNC with additive machining technology, such as 3D printing.*

### Accelerating domestic substitution

*The supply of numerical control systems shifts from imports to domestic manufacturing, supported by the national policy agenda and growing domestic manufacturing capabilities.*

### High Speed, High Precision, High Reliability

*Catering to high-end downstream manufacturing demands.*

# Enterprise geographical distribution of the numerical control system industry in China

Company name	Location	Introduction
<b>Wuhan Huazhong Numerical Control Co., Ltd.</b> 	Hubei	<ul style="list-style-type: none"><li>Founded in 1994, Wuhan Huazhong Numerical Control Co.,Ltd is the first listed company in China's numerical control system industry.</li><li>In 2020, the company occupied roughly 50% of the market share in China's numerical control system industry, and over 80% of the core components are self-developed.</li></ul>
<b>GSK CNC EQUIPMENT CO.,LTD.</b> 	Guangzhou	<ul style="list-style-type: none"><li>Founded in 1991, GSK occupied a market share of 12% in 2023, and is an industry leader in mid-range numerical control systems.</li><li>GSK has a wide range of products: lathe CNC systems, drilling &amp; milling machine CNC systems, machining center CNC systems, grinding machine CNC systems, etc.</li></ul>
<b>Beijing KND CNC Technology Co., Ltd.</b> 	Beijing	<ul style="list-style-type: none"><li>Established in 1993, KND has sold over one million sets of CNC systems over the past thirty years.</li></ul>
<b>KEDE CNC Co., Ltd.</b> 	Liaoning	<ul style="list-style-type: none"><li>Established on January 28, 2008, Kede is an innovative manufacturer of high-end CNC systems, machine tools, and functional components.</li></ul>



Source: ITA Machine Tool Desk, In3act Analysis

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# China's casting parts industry can be characterized by three key phrases: output domination, mid-to-low-end products, and self-reliance & localization

## Output domination

In 2024, China's casting parts output exceeded 50 million tons and **accounted for over 45% of the world's total production**, dominating the global market for all specific casting parts categories.






## Mid-to-low-end products



China's machine tool casting parts market is **dominated by mid-to-low-end products (manufactured by small casting plants, and with a low industry concentration)**, lagging behind Japan and Germany.

## Self-reliance & localization

A self-reliance and localization trend can be observed in China, with an **increase in exports** (CAGR of 7.2% from 2020 to 2024) and **decrease in imports** (CAGR of -3.5% from 2020 to 2024) of machine tool casting parts.

# Leading market players of China's casting parts industry

COMPANY	CHINA HQ	INTRODUCTION
<b>OKUMA</b> 	Jiangsu	<ul style="list-style-type: none"> <li>Japan's leading manufacturer of CNC machine tools, including lathes, machine centers, grinders, and multi-purpose machines.</li> <li>Okuma is advancing the automated casting technology and producing casting parts that are mostly sold in Japan.</li> </ul>
<b>DMG MORI</b> 	Shanghai	<ul style="list-style-type: none"> <li>One of the world's largest manufacturers of high-precision machine tools, specializing in CNC lathes and milling machines.</li> <li>DMG MORI is producing casting parts at the production sites all over the globe.</li> </ul>
<b>HELLER</b> 	Jiangsu	<ul style="list-style-type: none"> <li>Providing 4- and 5-axis machining centers, milling &amp; turning centers, customized machine tools, as well as large casting parts.</li> </ul>
<b>QINCHUAN MACHINE TOOL GROUP CO., LTD. (QINCHUAN FOUNDRY)</b> 	Shaanxi	<ul style="list-style-type: none"> <li>One of China's leading machine tool manufacturers headquartered in Xi'an, Shaanxi Province, specializing in heavy-duty machine tools.</li> <li>Qinchuan Foundry, a subsidiary of Qinchuan Machine Tool Group Co., Ltd. is producing high-quality casting parts for machine tool beds, columns, and other structural components.</li> </ul>
<b>WUHAN WUZHONG CASTING &amp; FORGING CO., LTD.</b> 	Hubei	<ul style="list-style-type: none"> <li>A major manufacturer of heavy machine tools in China. It produces large-scale machine tools for downstream sectors such as shipbuilding, aerospace, and power generation.</li> <li>Wuzhong Casting &amp; Forging Company, a subsidiary of Wuhan Wuzhong Casting &amp; Forging Co., Ltd, specializes in the casting and forging services for heavy machine tool components.</li> </ul>

COMPANY	CHINA HQ	INTRODUCTION
<b>DALIAN MACHINE TOOL GROUP FOUNDRY CO., LTD.</b> 	Liaoning	<ul style="list-style-type: none"> <li>Dalian Machine Tool Group Co., Ltd. specializes in producing high-precision castings for machine tools (beds, columns, and other structural parts).</li> </ul>
<b>JINAN NO.2 MACHINE TOOL FOUNDRY CO., LTD.</b> 	Shandong	<ul style="list-style-type: none"> <li>As a subsidiary of Jinan No.2 Machine Tool Factory, Jinan No.2 Machine Tool Foundry Co., Ltd. focuses on producing castings for heavy-duty machine tools such as lathes and machining centers, integrated with forging and machining services.</li> </ul>

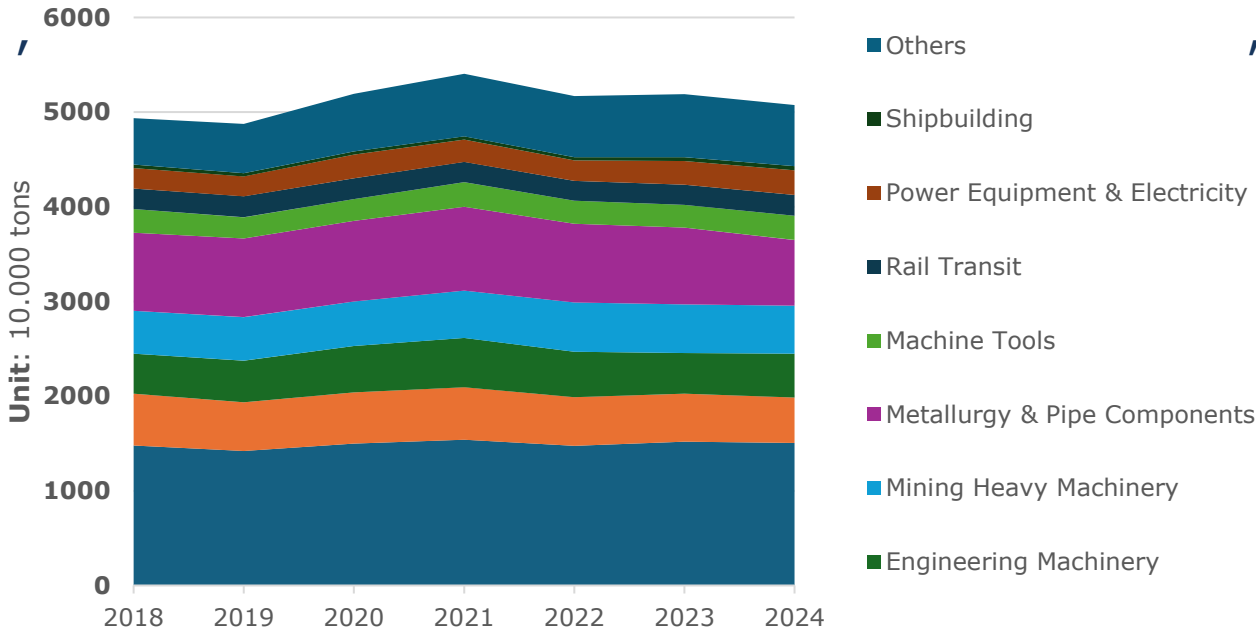


Source: ITA Machine Tool Desk, In3act Analysis

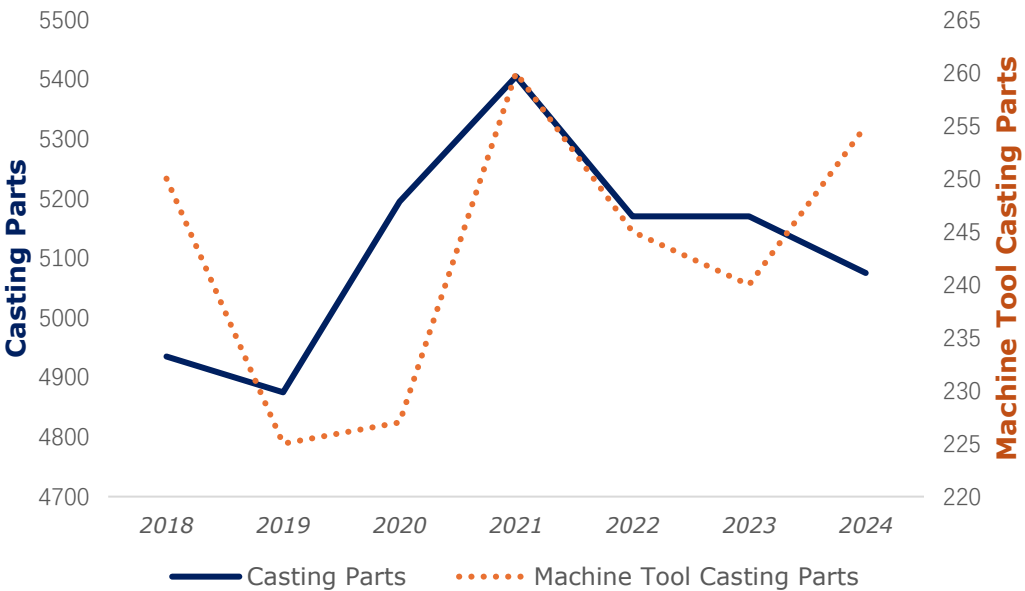


# China's casting parts industry size remained roughly stable in the past few years, according to the China Foundry Assosiation

According to data from the China Foundry Assosiation,  
**Downstream sector demand of casting parts industry 2018-2024**



**China's total production of casting parts and machine tool casting parts 2018-2024**



## Key takeaways

- ❑ China's **total production of casting parts remained stable** from 2018 to 2024.
- ❑ **The automotive sector contributed the most to the downstream demand** of casting parts in China.
- ❑ There **was a consistent downstream demand from the machine tool sector**, despite not as big as that from the automotive sector.



# According to IMARC, China's casting parts industry is estimated to display a steady growth from 2025 to 2033

## Industry size

China's casting parts industry size is expected to **reach 98.1 million tons** in 2033.

## Expansion pace

From 2025 to 2033, China's casting parts industry size is estimated to display a **CAGR of 4.99%**.

## Growth factor

China's casting parts industry will be **largely driven by the downstream demand of electric vehicles**, which needs light-weight castings for complex structural components.

Source: IMARC Group

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# Tips for success in China market

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- Italian machine tool companies should opt for the “4P Strategy” to gain an edge in China’s competition landscape.
- There are a series of digital marketing platforms for Italian machine tool companies to leverage in order to achieve better branding performance in China market.
- Business taxation in China.

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# Italian machine tool companies should opt for the “4P Strategy” to gain an edge in China’s competition landscape

## Price



- ❑ Benefiting from the **advanced technology** (despite being caught up by local competitors), **craftsmanship**, and **defect reduction**, Italian machine tool manufacturers often **price their products higher than mid-to-low-end products by Chinese counterparts**, particularly for high-precision components.
- ❑ **Localized assembly and production of components help reduce the tariff and logistic costs** of Italian machine tool manufacturers, further enhancing the profit margin.

## Product



- Italian machine tool manufacturers are leveraging their extensive customization experiences **to offer flexible machine tool and automation solutions**, tailored to the needs of Chinese clients.

Case 1: An Italian enterprise has introduced a multi-spindle, multi-turret turning center for processing components in new energy vehicles, which not only boosts production efficiency but also fits in with high-precision requirements.

Case 2: Another Italian enterprise’s expertise in machining large structural components and high-rigidity materials helps the company win recognition in China’s high-end machine tool markets including aerospace, defense, and shipbuilding.

- Italian machine tool manufacturers can **establish technology centers in China, so as to collaborate with Chinese technology entities** (automation, robotics, CNC system) in the R&D of new products with higher levels of adaptability and competitiveness.

# Italian machine tool companies should opt for the “4P Strategy” to gain an edge in China’s competition landscape - continued

## Place (distribution)

It is essential for Italian machine tool manufacturers **to set up offices, technology support centers, and warehouses in China’s key manufacturing regions**, such as the Northeastern Region, the Yangtze-River Delta Region and the Pearl-River Delta Region, in order to **provide spare parts and timely after-sales service** for customers.

Moreover, Italian machine tool manufacturers should **consider collaborating with local agents with a mature distributing network**, so as to tap into the local machine tool market more easily and perhaps even expand into vertical markets like defense, shipbuilding, aerospace and automotive.



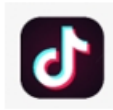

## Promotional campaigns




Method	Purpose
Actively participate in major industry exhibitions & seminars in China (etc. CIMA and CCMT)	Increase brand visibility and earn consumer trust through live demonstrations and technical exchanges
Use digital marketing platforms like Wechat, Douyin, and Bilibili for product promotion, as well as posting videos of equipment operations & user experience & maintenance guide	Enhance customer interaction and brand stickiness
Collaborate with professional magazines, industry opinion leaders, and authoritative associations to obtain third-party endorsements	Consolidate the professional image and credibility in the high-end market.

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# There are a series of digital marketing platforms for Italian machine tool companies to leverage in order to achieve better branding performance in China market- general summary

Platform	Advantages	Disadvantages
<b>WeChat</b> <b>(Official Account)</b> 	1. Direct user engagement functions enhance the brand loyalty. 2. Backstage user data can increase the precision and effectiveness of marketing strategies.	1. Content supervision, and strict platform regulations for users to comply with. 2. Requiring a high frequency of content updates to maintain the attention of audience.
<b>Xiaohongshu</b> 	1. Young user base, emphasizing creativity and commodity sharing/display. 2. UGC and KOL/KOC collaborations can enhance brand influence. 3. Integrated e-commerce functions support direct product purchases.	1. Predominantly young female audience, which may not fully align with the target audience of traditional mechanical industries. 2. Content dissemination outcome heavily depends on latest user trends, making sustained & stable content exposure challenging.
<b>Douyin</b> 	1. Engaging short videos and live-streaming effectively showcase product features and operating performance. 2. Real-time user engagement functions (chat-boxes) enhance the brand exposure, particularly to the young audience.	1. Intense competition on the platform can make it difficult for brands to stand out. 2. Predominantly young audience, which may not fully align with the target audience of traditional mechanical industries.
<b>Kuaishou</b> 		

Platform	Advantages	Disadvantages
<b>Zhihu</b> 	1. Backstage user data can enhance the precision and effectiveness of marketing strategies. 2.(Zhihu) In-depth industry analysis and knowledge-based technical articles boost the brand authority.	1.(Zhihu) Highly-professional contents create a barrier for ordinary users to comprehend. 2.(Toutiao) Algorithms behind the content recommendation functions are not perfect (contents do not always reach the target audience).
<b>Toutiao</b> 	3.(Toutiao) Embedded content recommendation functions can greatly enhance the brand influence.	
<b>Alibaba International</b> 	1. Precise B2B matchmaking functions enable business to quickly connect with potential buyers. 2. Strong SEO tools help enhance product visibility to the target audience. 3. Global reach on this platform paves the way for cross-border transactions.	1. Fierce competition on the platform makes it difficult for small/start-up businesses to stand out. 2. Heavy reliance on SEO tools may result in suboptimal cross-border transactions for some enterprises.



# There are a series of digital marketing platforms for Italian machine tool companies to leverage in order to achieve better performance in China market– Wechat (Company Official Account)



A pivotal tool for businesses to connect with the target audience

## Overview

As the **most important digital marketing platform** for business in China, Wechat Company Official Account was launched by Tecent in 2012, enabling enterprises to disseminate informative contents and interact with account followers via text, image and audio. With the blended functions of content publishing and social engagement, Wechat Company Official Account gained foothold both domestically and internationally, distinguishing from western counterparts like Mailchimp and HubSpot, which focus on less direct approaches such as email marketing and CRM solutions.

## User base

As of 2024, Wechat boasted **over 1 billion** monthly active users, and **more than 5 million enterprises** have created a Wechat Company Official Account spanning industries such as manufacturing, food & beverage and technology.

## Platform functions

**Content publishing**—Business can share industry news, company dynamics, and product information in various formats, including text, images, and videos, to increase the visibility and transparency.

**Customer engagement**—The communication interface allows business to address customer inquiries and complaints promptly, therefore enhancing customers’ level of satisfaction and loyalty.

**Precise marketing**—The backstage user data of the Wechat Company Official Account provides insights in the behavior patterns of different demographic segments, so that business can target the potential customer base and devise marketing strategies accordingly.

# There are a series of digital marketing platforms for Italian machine tool companies to leverage in order to achieve better performance in China market– XiaoHongShu



**A social media and e-commerce platform**

## Overview

Xiaohongshu, also known internationally as Rednote, is a Chinese social media and e-commerce platform founded in 2013 by Mao Wenchao and QuFang. The platform allows users to **make online purchases and share user-generated contents (UGC)** such as product reviews, travel experiences, and lifestyle tips.

## User base

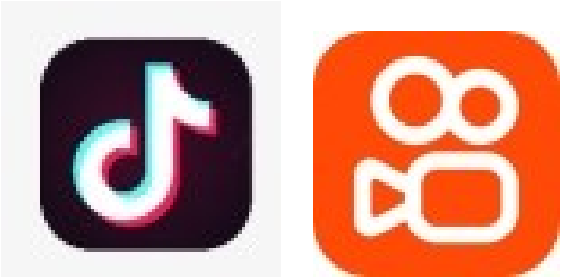
As of 2024 Xiaohongshu boasted **over 300 million monthly active users**, with approximately 70% born after 1990 and also approximately 70% being female. The platform was initially designed to attract young women interested in fashion and beauty, but now is expanding the content scope into technology, engineering design, etc., in order to attract a broader audience.

## Platform functions

**User-generated content**—Users can share experiences by photos, videos and text posts, creating a sense of authenticity and community on this platform.

**KOL & KOC collaborations**—Business can enhance brand visibility and credibility by partnering with Key Opinion Leaders (KOLs) and Key Opinion Consumers (KOCs) for product marketing.

# There are a series of digital marketing platforms for Italian machine tool companies to leverage in order to achieve better performance in China market– Douyin (Tiktok) and Kuaishou (Kwai)



Leading platforms for short videos and live-streaming contents

## Overview

**Douyin:** Launched by Bytedance in September 2016, Douyin’s platform functions have expanded from short videos into live-streaming and e-commerce within a short frame of time.

**Kuaishou:** Launched by Kuaishou Technology in 2011, Kuaishou has evolved from a GIF-sharing app into a major short video and live-streaming platform.

## User base

**Douyin:** As of December 2024, Douyin’s monthly active users exceeded 800 million (daily active users have exceeded 700 million). The user community is dominated by young people (students and junior professionals).

**Kuaishou:** As of December 2024, Kuaishou’s monthly active users reached approximately 714 million (daily active users reaches 408 million). The platform has a diverse user demographics, with a significant portion of users coming from China’s second-and-third-tier cities.

## Platform functions

**Brand exposure**— Both platforms have an extensive reach, enabling brands to showcase products to a vast audience and therefore to increase brand exposure/visibility.

**Direct engagement**— Features like live-streaming and interactive chat-boxes facilitate real-time engagement with users, and help foster a stronger customer relationship.

**Targeted marketing**— Advanced algorithms on the backstage allow brands to target potential customers with precision and funnel the marketing efforts accordingly.

**E-commerce**— The E-commerce function enables direct product sales through the platform, streamlining the purchasing process for customers.

# There are a series of digital marketing platforms for Italian machine tool companies to leverage in order to achieve better performance in China market– Zhihu and Toutiao



Platforms for disseminating professional and authoritative contents

## Overview

**Zhihu:** Launched in 2010 by Zhihu Technology as a question-and-answer community, Zhihu has now evolved into a comprehensive knowledge-sharing platform, encompassing professional expertise, industry insights, and latest technological innovation briefings. Zhihu is akin to western platforms like Quora or Reddit but places a stronger emphasis on in-depth discussions within the Chinese-speaking community.

**Toutiao:** Launched by Bytedance in 2012, Toutiao is a news/information-focused platform with algorithm-driven content recommendations. It covers a wide array of topics, including entertainment, society and economics.

## User base

**Zhihu:** As of 2023, Zhihu reported 99 million monthly active users, and 14.2 million subscribers (marking a 9.2% year-on-year increase). The platform predominantly attracts high-educated, tech-oriented users, in the fields such as technology, education, healthcare and finance.

**Toutiao:** As of 2020, Toutiao reported 270 million daily active users (spending on average 76 mins/day on the app).

## Platform functions

**Enhanced brand authority—** Both platforms allow business to share professional expertise and industry sights, solidifying brands’ authoritative images in the field.

**Targeted content distribution—** Advanced algorithms ensure that professional contents reach the most relevant audience.

**Direct audience engagement—** Features such as comments and discussion forums facilitate direct interactions with users/potential customers, enhancing the customer relationship-building and information transparency.

**Comprehensive numerical analysis—**In-depth data analysis tools allow business to monitor the content performance and refine marketing strategies accordingly.

# There are a series of digital marketing platforms for Italian machine tool companies to leverage in order to achieve better performance in China market– Alibaba International



**A premier B2B  
platform for global  
trade**

## Overview

Established by the Alibaba Group in 1999, Alibaba International serves as **China's leading B2B e-commerce platform** to connect Chinese enterprises with international buyers/sellers and facilitate the cross-border trade. Similar to western platforms like Amazon, Alibaba International offers comprehensive services including online display of products, cross-border transactions, and international supply chain management.

## User base

As of mid 2021, Alibaba International reported **over 30 million registered users**, with more than 70% located outside of China. The e-commerce platform spans over 40 industries and facilitates cross-border trade among over 200 countries(regions).

## Platform functions

**Trade matching**— Alibaba International's B2B algorithm enables producers to connect directly with potential buyers, streamlining the trade process with a higher efficiency.

**One-stop trade services**—Alibaba International offers users one-stop services for cross-border transactions, from trade assurance, logistics, to payment solutions.

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# Business taxation in China – Income Tax

Tax Category	Tax Rate	Details
Standard Tax Rate	25%	Applicable to most enterprises (that are not qualified for the preferential tax rate).
Preferential tax rate	20%	Applicable to the part of the taxable income within 3 million yuan, for small-and-medium-sized enterprises.
	15%	<ul style="list-style-type: none"> <li>✓ Encouraged industries in special economic regions (e.g. Hainan Free Trade Port, Hengqin Deep Cooperation Zone, Pingtan Comprehensive Experimental Zone)</li> <li>✓ Eligible high-tech enterprises.</li> <li>✓ Eligible enterprises engaged in pollution prevention and control.</li> </ul>
	10%	Eligible key software and integrated circuit design enterprises.

# Business Taxation in China – Withholding Tax (EIT)

Tax subjects	Tax rate	Additional terms
<b>Dividend</b>	<b>10%</b> -- Dividends paid by Chinese companies to foreign companies	The tax rate may be reduced (e.g. to 5% or lower) with the existence of a tax treaty between China and the company's home country/region.
<b>Interest</b>	<b>10%</b> -- Interest payments to foreign countries	<ul style="list-style-type: none"> <li>✓ Interest payments of loans from the Chinese government and the state-owned banks are exempted from taxation.</li> <li>✓ An extra 6% VAT also applies to most interest payments.</li> </ul>
<b>Royalty</b>	<b>10%</b> -- Royalties for trademarks, copyrights, and technical services.	An extra 6% VAT applies to most royalties, with only technology service royalties exempted from taxation.



# Business Taxation in China – Value-added Tax (VAT)

Taxable Items	Rate	Examples
General goods, repair services, tangible asset leasing	13%	Machinery equipment
Special goods (food, books, utilities), immovable property, transportation, construction	9%	Residential housing, logistics, postal services
Intangible assets (except land use rights) licensing, financial/technology services	6%	Software licensing, consulting, R&D services

# Business Taxation in China – other relevant taxes

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- **Real estate tax**— *1.2% on property assessed value (for owners), or 12 % on rental income (for lessors).*
- **Stamp duty tax**— *applied to prescribed documents and contracts (rates ranging from 0.005% for loan agreements to 0.1% for property leasing contracts).*
- **Import tax**— *general rates apply to non-treaty countries; preferential rates apply to countries with reciprocal agreements to China; some foreign-invested enterprises (FIEs) under certain conditions, may be exempted from import taxes on self-use machinery/equipment.*
- **Environmental protection tax**— *levied on air/water pollutants, solid waste, and noise.*
- **Consumption tax**-- *applied to manufacturers/importers of specific goods, such as alcohol, cosmetics, and cigarettes; tax rates ranging from 1% to 56%.*

# ITA Beijing Machine Tool Desk

## Contact information

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## Posting website

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