

# Desk Macchine Utensili ICE Pechino CHINA'S MACHINE TOOL INDUSTRY, MARKET AND REGULATIONS

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- 1. Machine tool industry in China
- 1.1 Overview of China's economy, market performance and main indicators of the machine tool industry (October 2024)
- 1.1.1 Main economy highlights (summary of the highlights)

### Stable growth in industry output, despite a moderate decline in certain product categories

In October 2024, value-added of the industry above the designated size grew by 5.4% year-on-year on a national scale, 0.9 percentage points higher than that of the previous month. In the duration of the first three quarters in 2024 (January-September), value-added of the industry above the designated size grew by 5.8% year-on-year.

By industry, in October, value-added of the coal mining industry increased by 3.2%; value-added of the beverage & wine & refined tea manufacturing industry increased by 5.6%; value-added of the textile industry increased by 5.1%; and valued-added of the ship & aerospace & transportational equipment manufacturing industry displayed the biggest increase by 13.7%.

By product type, in October, value-added of steel reduced by 2.4%; value-added cement reduced by 10.3%; value-added of ethylene reduced by 1.3%. However, value-added new-energy vehicles still grew by an astounding 48.5%, showing a strong momentum despite the moderate decline in certain product categories.

#### Continuous increase of consumption across regions

In October 2024, total retail sales of consumer goods amounted to 411.1 billion yuan, up by 3.2% year-on-year. In the duration of the first three quarters in 2024 (January-September), total retail sales of consumer goods amounted to 3657.3 billion yuan, up by 3.3% year-on-year.

By location, in October, retail sales of consumer goods in cities and towns amounted to 350.4 billion yuan, up by 3.1% year-on-year, while retail sales of consumer goods in villages amounted to 47.7 billion yuan, up by 4.4%.

#### Slight fluctuation in the unemployment rate in the third quarter of 2024

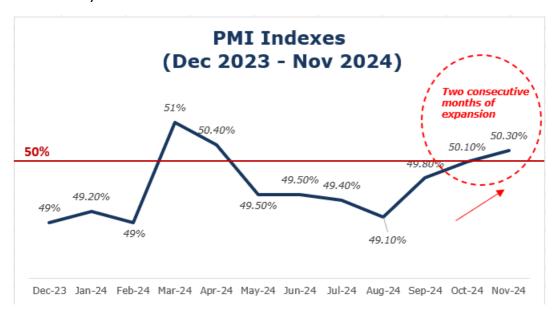
In the third quarter (July-September), the national urban unemployment rate averaged at 5.2%. The unemployment rate in July and August slightly rose (5.3%) due to a reduction in outdoor jobs during the hot summer season but fell to 5.1% as the seasonal effects weakened in September.

#### Manufacturing PMI Index (Nov 2024)

In November 2024, the Purchasing Manager Index (PMI) for the manufacturing industry was 50.3%, 0.2 percentage points higher than the previous month, indicating the consecutive industry expansions after six months of decline.

Reasons for two consecutive months of industry expansion are:

- 1) A basket of supportive policies introduced at the end of September.
- 2) The rapidly rising high-end manufacturing sector injects vitality into the overall industry.



\*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.

PMI and component indexes (%) of China's manufacturing industry

	PMI	Production	New order	Raw material inventory	Employee	Supplier delivery time
Dec 2023	49.0	50.2	48.7	47.7	47.9	50.3
Jan 2024	49.2	51.3	49.0	47.6	47.6	50.8
Feb 2024	49.1	49.8	49.0	47.4	47.5	48.8
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
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- > The manufacturing industry was showing a continuous upward trend after an extended period of decline.
- > The production of the manufacturing industry was significantly improving.
- New market orders displayed a moderate increase.
- > The overall employment situation was still to-some-degree worsening.
- > A slight efficiency increase on the delivery of raw materials could be observed.

#### 1.1.2 Machine tool industry indicators (Jan-Oct 2024)

According to data from China Machine Tool Industry Association, from January to October 2024,

- The machine tool industry achieved an operating income of 838.7 billion yuan nationwide, down by 5.9% year-on-year. Among the category, the operating income of metal-cutting machine tools increased by 7.7% year-on-year; the operating income of metal-forming machine tools increased by 8.9% year-on-year.
- New orders for metal-processing machine tools increased by 3.2% year-on-year; existing orders on hand increased by 1.5% year-on-year.
- China's total import & export of machine tools hit 25.97 billion USD, down by 1.8% year-on-year. Among the category, the import value hit 8.37 billion USD, down by 9.6% year-on-year; the export value hit 17.6 billion USD, up by 2.6% year-on-year.
- Metal-cutting machine tool production (October 2024): N/A

## 1.2. Overview of Italian Machine Tool Manufacturers in China 1.2.1 Italy's machine tool industry – historical evolution and current market performance

As one the most important pillars of Italy's national industry, the machine tool sector boasts an outstanding competitiveness and a rich history. The development of Italy's machine tool sector can be traced back to the initial rise of the traditional manufacturing industries such as automotive, textile, and leather (industry revolution), which laid a solid foundation for Italy's industrial boom in the subsequent eras.

In the second half of the 19th century

The growth of Italy's traditional manufacturing industry largely facilitated the initial development of the machine tool sector, primarily in the northern regions. (source: Fang, Y. and Ceccarelli, M., Peculiarities of Evolution of Machine Technology and Its Industrialization in Italy during 19th Century).

After WWII

Italy's machine tool sector developed rapidly and began to emerge on the international stage. By the 1980s, Italy established itself as a major player on the global machine tool stage, with the exports ranking second among European countries (after Germany), and fourth in the world. (source: Secondo Rolfo, The Italian machine tool industry).

In recent decades

Italy solidified itself as a world leader in the machine tool manufacturing sector. In 2022, Italy produced machine tools with a total value 6.5 billion euros, accounting for approximately one-twelfth of the global machine tool production (in terms of production value).

2022 data for the machine tool industry across the world:

	Consumption		Production	
	Value (in billion USD)	Rank	Value (in billion USD)	Rank
China	27.4	1	27.1	1
USA	9.3	2	5.9	5
Italy	5.7	3	6.9	4
Germany	5.5	4	10.2	3
Japan	4.1	5	10.5	2
South Korea	3.1	6	4.5	6
India	2.8	7	1.4	9

Source: Gardner Intelligence, Modern Machine Shop

	Imports		Exp	orts
	Value (in billion USD)	Rank	Value (in billion USD)	Rank
China	6.6	1	6.3	3
USA	5.5	2	2.1	8
Italy	2.8	5	3.2	4
Germany	2.6	3	7.3	1
Japan	0.08	15	7.2	2
South Korea	1.0	9	2.4	6
India	1.6	6	0.2	21

Source: Gardner Intelligence, Modern Machine Shop

#### Summary of highlights from 2022:

- As shown in the chart above, in 2022, Italy ranked 4<sup>th</sup> in terms of machine tool production, behind China, Japan and Germany. Italy also secured the 4<sup>th</sup> position in terms of machine tool exports, following Germany, China and Japan.
- According to UCIMU data in 2022, Italy's machine tool industry was significantly export-oriented, with 47.6% of the production flowing to international markets.

According to UCIMU data in 2023, Italy's production of machine tools & robots & automation systems reached a new level with a projected value of 7.615 billion euros, representing a 4.6% year-on-year increase; Italy's machine tool exports showed a projected value of 4.223 billion euros, marking a substantial 21.8% year-on-year. This phenomenon is largely driven by the rising foreign demand and indicates Italy's outstanding competitiveness as well as growing reliance on international markets.

Features of Italy's machine tool industry:

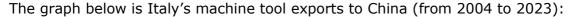
- Mainly small and medium-sized enterprises: According to a survey conducted by UCIMU in 2019, out of 400 machine tool manufacturers in the industry, 54.6% were invoiced less than 12.5 million euro, and 62.8% employed fewer than 100 people.
- **High degree of specialization and customization:** With the relatively smaller company size, Italy's machine tool manufacturers tend to focus on specific types of machine tools that can often be customized as per the client demand, therefore forming a unique advantage in certain sub-sectors.
- Leading in heavy-duty and large-scale machine tools: Italy produces worldclass heavy-duty and large-scale machine tools, which are widely used in high-end manufacturing sectors, such as aerospace, automotive, energy, oil & gas and shipbuilding.

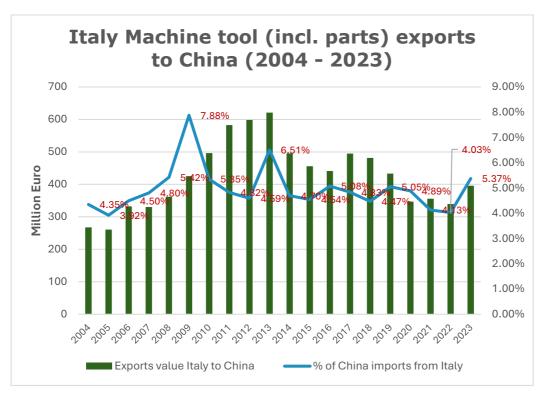
#### 1.2.2 Italian machine tool manufacturers in China

Italian machine tool manufacturers first entered China market in the 1980s, an era when China was gradually opening the economy and accelerating the industrialization progress. During the past few decades, Italian machine tool manufacturers has been expanding the reach in the Chinese market.

In 2023, China has become Italy's 3<sup>rd</sup> largest machine tool export destination, after US and Germany, reaching €286 million annually (UCIMU). The downstream application fields of Italian machine tool products in China have been continuously expanding especially in high-end sectors such as aerospace, rail, and automobile manufacturing. It is worth mentioning that the heavy & large machine tools are the most favored products in the Chinese market.

According to ITC (International Trade Centre) data, between 2004 and 2023, machine tool exports from Italy to China achieved a CAGR of 2.2%. To illustrate in detail, for starters, a steady growth trend of export from Italy to China can be observed, peaking in 2013 at approximately 621 million euros. After 2013, the exports decreased on a general basis, which can be attributed to China's efforts towards becoming more self-reliant in the machine tool industry, especially since the launch of the "Made in China 2025" plan in 2015. In 2019, China has transitioned from being a net importer to a net exporter of machine tools.





Source: International Trade Centre

(Note: The data is based on the major machine tool classifications as listed below).

Product HS code	Product description	Machine tool family classification
'8456	Machine tools for working any material by removal of material, by laser or other light or photon	Non- conventional
'8457	Machining centres, unit construction machines "single station" and multi-station transfer machines	Metal cutting
'8458	Lathes, incl. turning centres, for removing metal	Metal cutting
'8459	Machine tools, incl. way-type unit head machines, for drilling, boring, milling, threading	Metal cutting
'8460	Machine tools for deburring, sharpening, grinding, honing, lapping, polishing or otherwise	Metal cutting
'8461	Machine tools for planing, shaping, slotting, broaching, gear cutting, gear grinding or gear	Metal cutting
'8462	Machine tools, incl. presses, for working metal by forging, hammering or die forging (excl	Metal forming
'8463	Machine tools for working metal, sintered metal carbides or cermets, without removing material	Metal forming
'8464	Machine tools for working stone, ceramics, concrete, asbestos-cement or like mineral materials	Non-metal
'8465	Machine tools, incl. machines for nailing, stapling, glueing or otherwise assembling, for working	Non-metal
'8466	Parts and accessories suitable for use solely or principally with the machines of headings	Accessories/Parts

The map below shows the geographical distribution of Italian machine tool enterprises in China:



Source: ITA Machine Tool Desk, In3act Analysis

Among the 47 major Italian machinery companies operating in the Chinese market, approximately 35% have entered China since 2000, while around 60% established their presence after 2010. Notably, 34 of these companies have chosen Jiangsu and Shanghai as their operational bases. Most of them entered China as Wholly Foreign-Owned Enterprises (WFOEs), either in the form of trading WFOEs or production WFOEs.

Many of these companies play interconnected roles within the machine tool sector, relying on each other for essential components and technologies needed to complete their products and services. They engage in various functions across both upstream production processes and downstream distribution networks, depending on their specific business and sector focus. This collaborative ecosystem fosters mutual support and drives innovation, thereby enhancing their collective competitiveness in the market.

## 1.3. SWOT analysis: Italian machine tool manufacturers versus other major manufacturers

#### 1.3.1 Strengths and weakness analysis

Italy vs China (Mainland)		
Strength	<ul> <li>Advanced technology</li> <li>Better design</li> <li>Superior quality, precision and stability</li> <li>High brand recognition</li> </ul>	
Weakness	<ul><li>Higher production cost</li><li>Slower in order intake and after-sales service</li></ul>	

	Italy vs Asia (ex	xcl. mainland China)
	Italy vs Japan	<ul> <li>Customization capabilities, especially on the large machines</li> <li>High brand reputation</li> <li>Business agility (from many family-owned business)</li> </ul>
Strength	Italy vs South Korea	<ul> <li>Stronger presence in European market</li> <li>Better brand recognition</li> <li>Higher precision</li> </ul>
	Italy vs Taiwan	<ul><li>Superior precision engineering</li><li>Stronger presence in European market</li></ul>
	Italy vs Japan	<ul><li>Smaller production scale</li><li>Lower export volume</li></ul>
	Italy vs South Korea	<ul> <li>Higher production cost</li> </ul>
Weakness	Italy vs Taiwan	<ul> <li>Higher production cost</li> <li>Slower market responsiveness especially in the mainland China market</li> </ul>

Italy vs USA		
<ul> <li>Strength</li> <li>Specialization in large machinery</li> <li>High customization capabilities</li> </ul>		
Weakness	<ul> <li>Slower in order intake due to the company size</li> <li>Lower on automation technology</li> <li>Greater dependence on exports</li> </ul>	

Italy vs other	European countries
Italy vs Germany	<ul> <li>Higher flexibility in production and</li> </ul>

		customization
Strength	Italy vs Austria	<ul> <li>Stronger global presence and export performance</li> <li>Broader product coverage</li> </ul>
	Italy vs Switzerland	<ul> <li>Stronger presence in heavy machinery and large parts</li> <li>Broad product and sector coverage</li> </ul>
	Italy vs Spain	<ul> <li>Higher global positioning and larger production scale</li> <li>Leader in heavy and large machine tools</li> </ul>
	Italy vs Germany	<ul> <li>Smaller domestic market</li> <li>Limited resources and respond speed for large-scale projects</li> </ul>
	Italy vs Austria	<ul> <li>Behind in the field of turning &amp; milling compound machine tools</li> </ul>
Weakness	Italy vs Switzerland	<ul> <li>Lower expertise in micro/small parts processing i.e. healthcare sector</li> <li>Swiss machine tools feature ultrahigh precision capabilities (Swisstype machines</li> </ul>
	Italy vs Spain	<ul> <li>Lower focus on specific sectors such as automotive</li> <li>Lower market growth and slowdown in order intake</li> </ul>

#### 1.3.2 Opportunities and threats analysis

Opportunities and threats for Italian machine tool builders			
Opportunities	<ul> <li>Italy can continue leveraging its design &amp; quality excellence, as well as brand reputation to expand into premium markets/new market segments, particularly in large machinery production demanded by industries such as aerospace and rail transit.</li> <li>To address higher production costs and slower order processing speed, Italian machine tool builders should invest in automation (while maintaining quality standards).</li> <li>While having strong general manufacturing capabilities, Italian machine tool builders could develop specialized micro-manufacturing expertise by collaborating with established Swiss manufacturers who are leaders in micro and small parts processing.</li> <li>In comparison with Asian machine tool builders,</li> </ul>		

	Italy needs to improve response speed through enhanced order processing and after-sales service systems.
Threats	<ul> <li>There is an increasing competition from Asian manufacturers who offer lower production costs and faster response times. This presents a risk of losing market share to lower-cost manufacturers, especially those from mainland China and Taiwan.</li> <li>Compared to German and US machine tool builders, Italian companies, predominantly family-run SMEs, face the risk of losing market share in large-scale projects.</li> <li>Additionally, Italy faces higher vulnerability to global economic fluctuations due to its greater export dependence compared to other major producers.</li> </ul>

### 1.4. Overview of the downstream industry (construction machinery), enterprise geographical distribution and the demand trends

#### 1.4.1 Overview: construction machinery industry

Construction machinery refers to all machinery used for construction activities, ranging from soil excavation, transportation, loading & unloading of materials, to waste management (source: "Ferrovial"). The production of construction machinery requires the processing of high-strength components and large structural parts in huge quantities, which has been realized and revolutionized by CNC machine tools that can process complex-shaped parts with high precision. For instance:

- Five-axis linkage CNC machine tools -- process complex curved structural parts of soil excavators
- Large gantry machining centers -- process the chassis and working arms of soil excavators
- High-speed machining centers -- produce precision hydraulic valve bodies for cranes
- Large vertical lathes -- process the slewing bearing of a crane

#### 1.4.2 Geographical distribution of construction machinery enterprises in China

China's construction machinery market is widely domestic. According to the list of top 50 global construction machinery manufacturers in 2024, released by International Construction Magazine (UK), 13 Chinese companies are included:

Company name	Locations (province)
Xuzhou Construction Machinery Group Co., Ltd. (XCMG)	
☆※CMG 徐工集図	Jiangsu
Sany Heavy Industry Co., Ltd.	
SANY	Hunan
Zoomlion Heavy Industry Science & Technology Co., Ltd.	
<b>ZOOMLION</b> 中联重 iii	Hunan
LiuGong Machinery Co., Ltd.	
LIUGONG 抑工	Guangxi
Lingong Heavy Machinery Co., Ltd.	
	Shandong
China Railway Construction Heavy Industry Corporation Limited	
铁建重工	Hunan

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Shantui Construction Machinery Co., Ltd.  SHANTUI	Shandong
LONKING 地工	Shanghai
Zhejiang Dingli Machinery Co., Ltd.  DINGLI  Exceed · New Height	Zhejiang
Shaanxi Tonly Heavy Industries Co., Ltd.  同力重工 TONLY	Shaanxi
Sunward Intelligent Equipment Co., Ltd.  SUNWARD  山河智能	Hunan
Hunan Sinoboom Intelligent Equipment Co.,ltd.	Hunan
Inner Mongolia North Heavy Industries Group Co., Ltd. 中国兵器 内蒙古北方重工业集团有限公司 новинесь обносит Inner Mongolia North Heavy Industries Group Corp.Ltd	Inner Mongolia

The map below shows the geographical distribution of these companies across China:



Source: ITA Machine tool desk, In3act Analysis

#### 1.4.3 Demand trends of construction machinery industry

The global construction machinery industry is experiencing a significant growth. The market is valued at approximately 195 billion USD in 2023 and is projected to reach an estimated value of 274 billion USD by 2031 (with a CAGR of 4.34%). The growth trajectory unveils the robust demand for construction machinery globally, as well as a positive outlook for the construction machinery industry over the coming years.



<sup>\*:</sup> projected value for the future

Source: Statista

China, as the largest market for construction machinery in the world, also displays an upward industry trend. The market is valued at 50 billion USD (soil excavators constitutes 60% of the total construction machinery sales in China), with an expectation to reach 68 billion USD over the next five years, registering a CAGR of 5.55%. (source: Mordor Intelligence, 2024)

### 2. China's Policy Initiative: Developing the Financial Services for the Manufacturing Industry

On April 16, 2024, the "Notice on Deepening Financial Services for the Manufacturing Industry to Facilitate the Advancement of the New Industrialization Process" was issued. This policy focuses on funneling more financial resources into the manufacturing industry, with the purpose of transforming China from a

manufacturing powerhouse to a global manufacturing leader.

#### 2.1 Main policy content from the central government Enhancing the financial support for manufacturing enterprises

- ➤ **Technological innovation:** Support the R&D of technology-driven enterprises, especially SMEs, by providing financial services throughout the entire business cycle. Risks during the R&D process can be mitigated via tools like technology insurance.
- > **Industrial upgrading:** Support the equipment renewal and replacement in the traditional manufacturing sector via various financial tools.
- > **Intelligent and green development:** Increase financial support for enterprises in the field of intelligent manufacturing, digital economy, industrial internet and carbon reduction.
- > **Support from policy banks:** Policy banks will leverage their large funding base and privileged long-term loans to offer robust support for SMEs.

#### Strengthen the quality of financial products

- ➤ Optimize the loan structure: more credit allocation to the manufacturing sector; higher proportion of medium and long-term loans; more support for first-time loan borrowers and less dependency on physical assets like collateral.
- ➤ **Diversify the financial portfolio**: enrich the financial product portfolio, like intellectual property pledge loans, so as to cater to the specific demands of different manufacturing sectors.
- **Explore more flexible financing methods:** Banks can explore more flexible interest rate pricing and repayment methods based on the operation cycles of the manufacturing enterprises in order to help alleviate their financial burden.

#### Maintain the financial market order

- **Proper use of financial tools**: financial institutions must strictly supervise lending to ensure the proper use of credit funds.
- Healthy financial market environment: prevent excessive market competition to ensure a reasonable loan price; combat illegal financial activities.

#### **Create a precise financial matching mechanism**

Promote personalized financing services for SMEs; industry associations, service centers and information platforms can serve as the bridge between SMEs and financial product providers.

## 2.2 Policy measures from the local governments Shanghai: Green finance – "Notice on coordinating the implementation of

#### financial services for 'Shanghai Industry Green Loan'"

- ➤ **Green enterprise databases:** Shanghai government has established a green enterprise database to grant enterprises, that meet green development standards, privileged access to green bonds, green credit, and other relevant financial products.
- ▶ Diverse green financial products: Shanghai government encourages financial institutions to launch more flexible financing products based on the industry characteristics, such as carbon assets & carbon sinks for the green industry, and equipment upgrade & technology transformation funds for the manufacturing industry.
- ➤ **Green project fast-track approval:** Shanghai government has set up a fast-track approval channel, through which enterprises can quickly access fundings after submitting the project proposal, therefore improving project implementation efficiency.

## Beijing: Manufacturing transformation and upgrading – "Guiding opinions on financial support for the transformation and upgrading of Beijing's manufacturing industry"

- ➤ **Supply chain financing:** Beijing supports leading manufacturing enterprises in developing supply chain financing by providing funding to upstream and downstream partners, as a way to reduce overall financing costs and also to enable SMEs to access financing with the credit recognition of leading manufacturing enterprises.
- ➤ **Bill financing:** Enterprises are encouraged to issue and accept commercial bills, which helps alleviate the company's pressure in delayed payments and liquidity difficulties.
- ➤ **Stock and bond linkage service model:** Beijing is promoting a linked financial service model between banks, insurance companies and securities institutions, so as to offer one-stop financial support (investment, lending, insurance and hedging) to enterprises in need.
- ➤ **Cross-border financing support:** Enterprises, particularly those engaged in export business or international operations, can access cross-border funding pools and enjoy foreign exchange facilitation policies for international financing.

## Jiangsu: Digital Transformation – "Several measures of financial support for the digital transformation and upgrading of Jiangsu's manufacturing industry"

- ➤ **Increased credit support:** Jiangsu government increases credit support to enterprises undergoing the digital and smart manufacturing transformation, lowering the bar for accessing fundings.
- ➤ Pivot to direct financing through the capital market: Jiangsu government encourages enterprises (in the advanced manufacturing and digital sectors) to lessen the reliance on traditional bank credit by directly

- seeking financing through the capital market.
- ➤ Risk compensation and government investment funds: The government has established risk compensation and government investment funds to provide enterprises with lower cost & higher security financing. It is worth mentioning that enterprises in the process of technological innovation and market expansion are most advantageous in accessing the funds.

#### Guangdong: Digital, high-end and intelligent transformation

- Specialized loans for technological renovation: Guangdong government offers specialized loans and a series of other tailored financial support to enterprises in the process of technological renovation and hightech transformation.
- ➤ **Full-cycle financial services:** Guangdong government provides a financial service system catering to the entire business cycle (from start-up to expansion; from R&D to product launch). Enterprises, especially those in the high-end and intelligent sector, can access fundings at every business stage, from early-stage working capital loans to long-term technological renovation financing.
- Financial services in the industrial park: Guangdong government has created financial products, such as industrial park construction loans and equipment upgrading financing (for enterprises located within the industrial park), to help enterprises achieve a robust industrial performance.

## 2.3 Opportunities for large and medium-sized enterprises (SMEs) to leverage the policy initiatives

Foreign-funded enterprises in the manufacturing industry, both large and medium-sized, can benefit from the government policy initiative.

#### Large foreign-funded enterprises--

- Expanding financing channels: Large enterprises can raise funds via a variety of channels, such as (being listed on) the main board, STAR Market, ChiNext, Beijing Stock Exchange as well as on the New Third Board.
- ➤ **Innovative financial products:** Financial institutions are encouraged to innovate products & services that are customized to large foreign-funded enterprises.
- ➤ Bank-enterprise "docking": Interaction events between the bank and large foreign-funded enterprises are organized on a regular basis, ensuring the adequate disclosure of industry information.

#### Medium-sized foreign-funded enterprises—

> Smooth financing and loan renewal: With the newly introduced

- "Financing Smoothness" program and "Seamless Loan Renewal" program, medium-sized foreign-funded enterprises can simplify the procedure of funding application and spare the effort of re-applying for loans at its termination data, therefore reducing the cost incurred in the process.
- ➤ **Industrial chain financing:** Financial support for foreign-funded enterprises, in particular (small and) medium-sized ones, is carried out throughout the value chain. Medium-sized enterprises can access funding together with their industry-recognized upstream/downstream business partners.
- Customized services: The government provides tailored services ("One enterprise, One policy" Initiative) to medium-sized foreign-funded enterprises, catering to the company's specific funding needs.

#### Part 3 Machine Tool Industry Exhibition: Recent Highlights

Dongguan International Machine Tool Exhibition 2024 (DWE 2024) is held in Dongguan, Guangdong, from 11<sup>th</sup> November to 15<sup>th</sup> November, as the last event in the 2024 series. Spanning 130,000 square meters, this event accommodates over 1500 vendors (over 1000 Chinese vendors), most of which coming from 3C electronics, automotive parts, precision molds and medical equipment industries. The venue is divided into seven zones -- metal-cutting, laser machining, CNC machine tools, metal sheeting, stamping, grinding tools, and industrial parts machining. It is worth mentioning that many innovative breakthroughs from domestic brands, such as Taixin Technology and Yunnan Yiji Machine Tool Group, can be observed by the audience, indicating the significant advance in the domestic substitution process of the machine tool industry.

A rigid and stable vertical machining center appears in front of the audience in the exhibition event. It has been completely annealed to eliminate residual internal stress and thus will not deform for a long time. The X, Y,Z-axis guideways are roller with automatic forced lubrication, which can reduce the friction and improve the precision in the manufacturing process.

#### Key attributes to be highlighted:

> The machine body and main components are made of high strength cast iron with stable metallurgical features, to ensure the long-term use of the machining center.

- > The bottom of the column is a A-shaped bridge structure combined with a large box base, greatly reducing the vibration of the machine body during the heavy cutting process.
- Oil-water separation design; pneumatic loosening and pulling system,



Another product present in the exhibition event is a molding machine that can be applied to the blind fishing process of printed circuit boards. It has adopted the brand-new technology and optimized mechanic structures so that the utilization rate of the factory can be improved. The Z-axis of the molding machine is independently controlled and equipped with a high-precision depth gauge, platen structure, and contact-type measurement tool, ensuring the precision of depth control and accuracy of the blind fishing process.



## Part 4 Trade Exchange in the Machine Tool Industry between Italy and China (August 2024)

Italy's machine tool imports and exports worldwide (in millions of euro)

	Import			Export		
	Value	YOY change 2023-2024	Percentage share	Value	YOY change 2023-2024	Percentage share
Asia	184.3	-47.4%	27.6%	456.7	+8.6%	18.2%
Oriental Asia	177.8	-46.9%	26.6%	190.7	-12.5%	7.6%
China	44.3	-22.7%	6.6%	138.4	-15.3%	5.5%
Worldwide total	668.6	-43.3%		2510.2	+7.9%	

#### Italy's machine tool imports and exports with China by category (in millions of euro)

Marked blue are the respective indicators for worldwide total

		Value	YOY change	Share of worldwide total
Metal-cutting machine tools	Import	15.5 (444.3)	-30.6% (-42.8%)	3.5%
	Export	98.7 (1077.3)	-23.6% (+5.4%)	9.2%
Metal-forming Machine tools	Import	11.0 (121.3)	-12.8% (-43.8%)	9.1%
	Export	30.0 (1153.5)	+55.8% (+9.4%)	2.6%
Non- conventional technology machine tools	Imports	17.7 (102.9)	-20.5% (-44.8%)	17.2%
	Exports	9.6 (279.4)	-35.1% (+11.7%)	3.5%

#### Key takeaways from the data above:

In August 2024, Italy's machine tool import from the rest of the world drops by approximately a half year-on-year, with the import from China displaying a similar trend but on a relatively smaller scale (down by 22.7%). In terms

- of export, Italy's trade with Oriental Asia countries (China, Japan, South Korean) shows a downward trend.
- A comprehensive decline (for both import and export) in all machine tool categories can be observed between Italy and China, except a large rise in Italy's metal-forming machine tool export to China.

#### 5. Tenders and Bids in China (Dec 2024)

Announcement of Procurement for Processing Machine Tool of Shenyang Beixiang Aviation Technology Co., Ltd.

Required by Northern Heavy Industry Group Co., Ltd

Action deadline: Dec 3, 2024

Announcement of Procurement for STZBT(G)2024-257-Equipment Workshop CNC End Milling Procurement Project

Required by Shantui Construction Machinery Co.,Ltd.

Action deadline: Dec 9, 2024

Announcement of Procurement for Shantui Construction Machinery
Co.,Ltd.STZBT(G)2024-261 Equipment workshop five axis machining center

Required by Shantui Construction Machinery Co.,Ltd.

Action deadline: Dec 10, 2024

Announcement of Procurement for CNC lathe and loading and unloading device (simple) project of North Heavy Industries (Shenyang) Automotive Steering System Co., Ltd

Required by North Heavy Industry (Shenyang) Automotive Steering System Co., Ltd

Action deadline: Dec 12, 2024

Announcement of Procurement for Precision CNC lathe

Required by State owned Sida Machinery Manufacturing Company

Action deadline: Dec 12, 2024

Announcement of Procurement for Two CNC lathes of Daye Donai Motor Co.,Ltd.

Required by Daye Donai Motor Co.,Ltd.

Action deadline: Dec 15, 2024

Announcement of Procurement for Machine Tool Accessories of Shanxi Liliu Coking Coal Group Liulin Co., Ltd

Required by Shanxi Liliu Coking Coal Group Liulin Co., Ltd

Action deadline: Dec 16, 2024

Announcement of Procurement for CG61160 lathe of Baoji Titanium Industry Co.,Ltd.

Required by Baoji Titanium Industry Co.,Ltd.

Action deadline: Dec 16, 2024

Announcement of Procurement for Machine Tool & Cutter of Benxi Iron&Steel(Group)Machinery Manufacture Co.,Ltd.

Required by Benxi Iron & Steel (Group) Machinery Manufacture Co.,Ltd.

Action deadline: Dec 17, 2024

Announcement of Procurement for Beijing Aero Lever Precision Limited - CNC wire cutting machine tools

Required by Beijing Aero Lever Precision Limited

Action deadline: Dec 18, 2024

Announcement of Procurement for Dalian Changfeng Industrial Corporation - Precision centerless grinding machine

Required by Dalian Changfeng Industrial Corporation

Action deadline: Dec 19, 2024

Announcement of Procurement for one new horizontal CNC lathe project of Yituo (Luoyang) Hydraulic Transmission Co., Ltd in 2024

Required by Yituo (Luoyang) Hydraulic Transmission Co., Ltd

Action deadline: Dec 24, 2024

Announcement of Procurement for Taikai High-Volt Switchgear Co.,Ltd.- CNC lathe equipment project of shell technology process room

Required by Shandong Taikai High-Volt Switchgear Co.,Ltd.

Action deadline: Dec 25, 2024