

Taiwan's Industrial Development: Current Trends and Issues

Since 2018, Taiwan's economy has grown rapidly, gradually decoupling from the broader global economic growth cycle, driven by global supply chain reconfiguration, trade diversion amid the U.S.-China dispute, COVID-19-driven digital transformation opportunities, and the surge in AI and other emerging technologies. The electronics and ICT (i.e., information and communication technology) manufacturing sector has stood out as the primary engine of expansion, cementing Taiwan's position as a critical hardware manufacturing hub in the global AI supply chain – backed by leading-edge semiconductor capabilities, deep supply chain integration, and over five decades of strategic policy support, industrial clustering, and continuous technological advancement since the 1970s.

In contrast, Taiwan's traditional manufacturing sector faces severe headwinds from China's dumping and U.S. tariffs, causing exports and output to diverge from the electronics and ICT sector, mirroring trends seen in South Korea and Japan. Despite intense international competition, most traditional manufacturers show no signs of contraction or waning competitiveness, continuing to invest in R&D and machinery in pursuit of process optimization and product upgrading, as evidenced by a sustained rise in value-added ratios.

To provide a clearer understanding of the related issues, this report addresses the following topics in a Q&A format.

Q1 : What explains Taiwan's current position as a key player in the global AI supply chain?

Q2 : Have electronics & ICT products always been the mainstay of Taiwan's exports?

Q3 : Why has Taiwan's economic growth markedly outpaced the global average in recent years?

Q4 : Has Taiwan's traditional manufacturing competitiveness declined markedly since 2018?

Q5 : Is the divergence between electronics/ICT and traditional manufacturing unique to Taiwan?

Q1 : What explains Taiwan’s current position as a key player in the global AI supply chain?

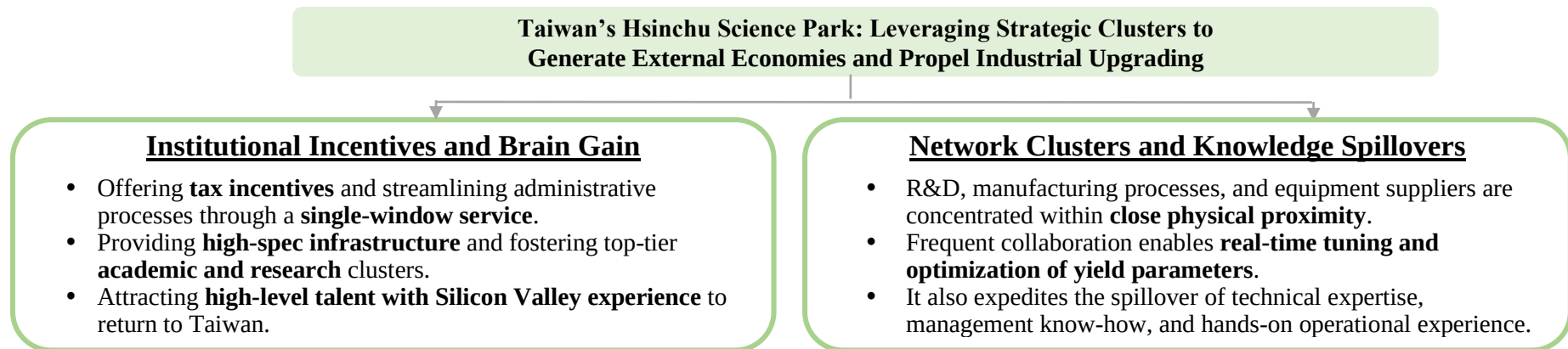
A1 : Taiwan’s rise to a hub in the global AI supply chain stems from sustained efforts spanning government policy guidance, industrial clustering effects, an engineer-oriented culture, the innovative wafer foundry business model, continuous R&D investment, and adaptive global deployment, enabling it to seize the opportunities of this technological paradigm shift.

I. Development of Taiwan’s electronics and ICT manufacturing sector

1. The dominant role of labor-intensive light industry before the 1970s was followed by a national policy to develop the semiconductor industry in response to rising labor costs and the oil crisis.

- In 1974, the government decided to embark on semiconductor development.¹ In 1976, ITRI² signed a technology-licensing agreement with RCA Corporation and sent engineers to the U.S. for training. It later established an integrated-circuit (IC) pilot plant and spun off local firms such as UMC and TSMC.
- Taiwan’s government established the **Hsinchu Science Park** in the 1980s, spurring an industrial clustering effect (Fig. 1).

Figure 1: The Science Park’s Clustering Effect



Source: Compiled by the CBC.

¹ The decision traces back to a now-famous meeting at a small diner in Taipei in 1974, where key government officials and technology advisors, including Minister of Economic Affairs Yun-Suan SUN, Director-General of Telecommunications Hsien-Chi FANG, and Dr. Wen-Yuan PAN from the RCA, gathered over breakfast to discuss Taiwan’s technological future. After Fang and Pan laid out the case for IC technology, the group reached consensus on the spot to pursue it. This informal meeting is widely regarded as the founding moment of Taiwan’s semiconductor industry.

² The Industrial Technology Research Institute (ITRI) has since led Taiwan’s semiconductor development and is now a hub for advanced R&D, helping the domestic supply chain pursue forward-looking technology and expand self-sufficiency in materials, equipment, and processes. Through industry-academia-research collaboration and talent mobility, it has driven continuous upgrading, playing a key role in elevating Taiwan’s technological strength.

2. In the **mid-1980s**, the **U.S.**, in pursuit of trade rebalancing and domestic industry protection, leveraged the 1985 Plaza Accord and the 1986 U.S.-Japan Semiconductor Agreement to force open **Japan's** market and curb its exports, checking Japan's semiconductor sector development through trade pressure. This reshuffled the global semiconductor supply chain, creating an opening for Taiwan.
3. **From the 1990s to the 2010s**, Taiwan's exports benefited from zero tariffs under the **Information Technology Agreement (ITA)**, driving the expansion of the domestic electronics and ICT manufacturing ecosystem.
 - The 1997 ITA – of which Taiwan was a founding member – eliminated tariff barriers, allowing most electronics and ICT products to be exported duty-free. This meant high-tech manufacturers no longer needed to relocate production lines overseas, while enabling them to **deepen their integration into international brands' supply chains and expand the ecosystem**.
4. Amid **the U.S.-China trade dispute** since 2018, Taiwan's key position in the global supply chain has been further reinforced.
 - (1) The 2018 U.S.-China trade dispute prompted **customer demand for a de-risked, “non-red” supply chain**. The consequent **reshoring** of Taiwanese manufacturers and **increased investment channeled to ASEAN economies** also helped boost supply chain resilience.
 - (2) In 2021, under President **Biden**, the U.S. released a **supply chain security report**,³ aiming to strengthen supply chain resilience and security, which cemented semiconductors' strategic status; the U.S. also pursued a **“friend-shoring” strategy** in cooperation with allied countries.
 - (3) Taiwan's semiconductor industry holds a globally leading position and unique strategic importance, with TSMC playing a key role.
5. With the explosive growth of generative AI at end-2022, Taiwan has emerged as the hub of hardware manufacturing in AI supply chains.
 - (1) **A complete AI supply chain:** Spanning IC design, key components, and system integration, Taiwan's complete AI supply chain, which was built on over 50 years of development, has earned deep trust from international cloud service providers, making it a globally indispensable hub that is difficult to replicate.
 - (2) **Flexible global deployment:** Since 2024, as the U.S. has pushed for domestic production, Taiwanese firms have expanded eastward into the U.S., strengthening customer relationships, enhancing production resilience, and securing diversified resources—extending Taiwan's industrial strength overseas.
 - (3) **Rooted in Taiwan:** Taiwanese firms continue to invest in Taiwan, keeping the most advanced technology at home, further driving the ICT manufacturing sector toward the high-value-added end of the smile curve.

³ The White House (2021), “Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth,” 100-Day Reviews under Executive Order 14017, Jun.

II. Backed by four core strategies, Taiwan's electronics and ICT manufacturing sector is transforming toward the high-value-added end of the smile curve.

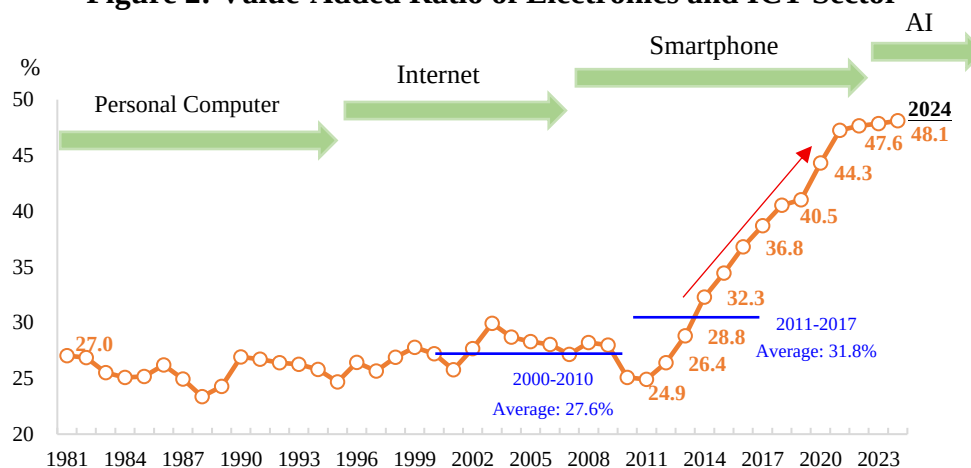
During the transformation towards the high-value-added end of the smile curve, electronics and ICT manufacturing's value-added ratio has risen from an average of 27.6% in 2000–2010 to 31.8% in 2011–2017 and climbed further to 48.1% in 2024 (Fig. 2), thanks to four core strategies as follows:

1. **A pioneering “wafer foundry” business model:** As exemplified by TSMC's foundry model, the industry has upheld the principle of “never competing with customers,” earning high customer trust and building mutually beneficial partnerships.
2. **Specialized horizontal division of labor:** Taiwan holds a leading edge across IC design, manufacturing, and packaging/testing in the semiconductor supply chain, showing strong competitiveness⁴ – in contrast to the vertically integrated models of the U.S., Japan, and Korea.⁵
3. **A highly disciplined engineer culture:** The high caliber of Taiwan's engineers, combined with their rigor, discipline, and exceptional execution, has enabled local firms to overcome yield bottlenecks far faster than international rivals.
4. **Sustained investment and R&D in new technologies:** Taiwanese firms have long invested in R&D and expanded capex, moving early into advanced processes and packaging. This has allowed them to seize key opportunities in the smartphone boom and play a pivotal role in the current AI boom.

III. Through sustained long-term efforts, Taiwan's electronics and ICT manufacturing sector has secured a pivotal global position; however, the risks that excessive concentration may pose warrant continued attention:

1. **Business cycle volatility risk:** A cyclical reversal in the tech sector could amplify volatility in Taiwan's economy.
2. **Factor crowding-out effects:** Excessive increases in the costs of water, electricity, land, and labor could dampen traditional manufacturing's willingness to invest and produce.
3. **Worsening income distribution:** As technology dividends concentrate among specific labor groups while the general public benefits less, income distribution could deteriorate.

Figure 2: Value-Added Ratio of Electronics and ICT Sector



Sources: DGBAS; compiled by the CBC.

⁴ Taiwan ranks first globally in wafer foundry and IC packaging/testing output value, and second in IC design.

⁵ For example, Intel integrates chip design, manufacturing, and brand sales within a single company, representing a highly vertically integrated model.

Q2: Have electronics & ICT products always been the mainstay of Taiwan's exports?

A2: The shift in Taiwan's leading export products reflects industrial transformation and upgrading, as well as the economy's response to changes in global demand. Since the 1990s, the share of electronics & ICT product exports has risen steadily, reaching as high as 78.6% (=33.7%+44.9%) in January-May 2026.

- I. In the 1980s, textiles were Taiwan's largest export product, accounting for 21.1% of total exports in 1981. As Taiwan's industrial structure shifted from labor-intensive to capital- and technology-intensive production and labor-intensive industries relocated overseas, along with domestic population aging and a declining birth rate, the share of textile exports gradually declined (Table 1).
- II. The **establishment of the Hsinchu Science Park** in 1980 attracted capital- and technology-intensive investment, marking the start of Taiwan's electronics & ICT manufacturing industry. Beginning in the 1990s, the industry benefited from a steady stream of outsourced **OEM orders from major international firms**, and **its share in Taiwan's total exports rose** progressively from 13.7% (=13.0%+0.7%) in 1981 **to 41.4%** (=16.6%+24.8%) in 2001. Among these, the export **share of information, communication, and audio-video (ICT/AV) products rose to 24.8%**, driven by the flourishing development of personal computers.
- III. China's accession to the WTO in 2001 deepened cross-strait trade division of labor. Subsequently, with **the rise of the "red supply chain,"** Taiwanese firms' ICT/AV increasingly shifted toward a "Taiwan-order, China-production" model. **After 2011**, Taiwan's exports became more concentrated in upstream integrated circuits (IC); coupled with the industry's response to surging demand driven by the smartphone chip wave, **the share of electronics parts and components rose** while that of ICT/AV products declined. **The combined export share of electronics & ICT products remained above 30%.**
- IV. From 2018 to 2022, benefiting from order transfers, remote-work demand, and digital transformation opportunities, the share of electronic components rose from 33.2% to 41.7%, while the share of ICT/AV products changed comparatively little, from 10.6% to 13.5%.
- V. Amid **the U.S.-China dispute**, major server manufacturers expanded investment and production in Taiwan, and with **the AI boom** taking off, the share of **ICT/AV products surged to 44.9%** in the first five months of 2026, making it Taiwan's leading export product.

Table 1: Shares of Taiwan's Major Export Products

Unit: %

		1981	1991	2001	2011	2018	2022	Jan.-May 2026
Electronics & ICT/AV	Electronic components	13.0	10.7	16.6	24.2	33.2	41.7	33.7
	ICT/AV products	0.7	7.3	24.8	11.8	10.6	13.5	44.9
Mineral Products and Plastic & Chemical Products		8.0	9.5	11.2	21.2	18.5	14.4	6.5
Machinery, Electrical Machinery and Household Electrical Appliances		7.9	13.6	13.8	11.2	11.1	9.4	5.6
Base Metals and Articles thereof		6.8	7.6	9.0	9.7	9.5	7.7	3.6
Optical and Precision Instruments, etc.		2.4	2.7	2.8	7.7	5.0	3.5	1.6
Transport Equipment		3.7	5.2	3.6	3.3	3.4	3.5	1.2
Textiles		21.1	15.7	10.0	4.1	3.0	1.8	0.7
Agricultural Products		7.7	4.5	1.6	1.3	1.7	1.1	0.5

Note: Figures in bold blue mark the largest share for that year.

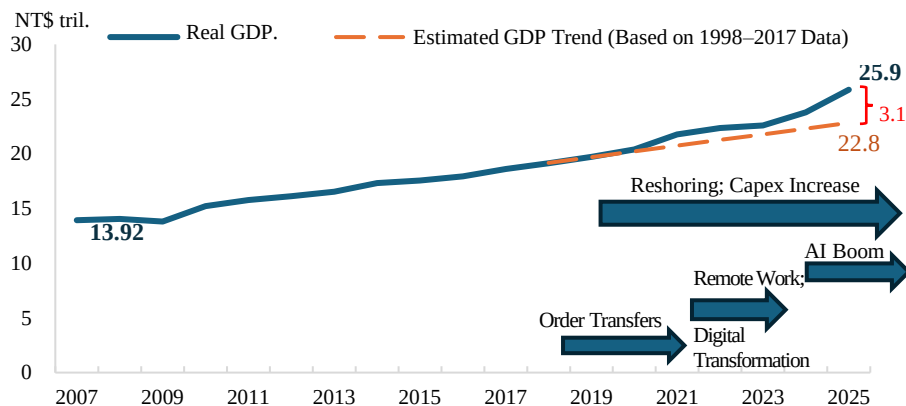
Source: Ministry of Finance.

Q3: Why has Taiwan's economic growth markedly outpaced the global average in recent years?

A3 : Since 2018, a range of economic dividends stemming from global supply chain restructuring and rising technology needs have fueled global demand for Taiwan's high-tech products, lifting its economic growth markedly above the global average.

- I. Owing to **economic dividends** stemming from order transfers amid U.S.-China trade spats, pandemic-driven remote work and digital transformation opportunities, and the expanding application of emerging technologies such as AI, Taiwan's economy grew rapidly from 2018 onward.
 1. Following the 2018 U.S.-China dispute, Taiwan's economy benefited from **reshoring investment** and the resulting **order-transfer dividend**, pushing the 2018–2020 actual real GDP above the level projected using a 1998–2017 sample (Fig. 3).
 2. In 2020, as COVID-19 spread globally, Taiwan's effective epidemic control kept manufacturing activity uninterrupted, while pandemic-driven **remote-work and digital-transformation** opportunities further lifted the GDP level.
 3. The **generative AI boom** that emerged in late 2022 drove demand for AI infrastructure and computing power (reflected in the sustained capex expansion of the four major U.S. CSPs) (Fig. 4). Given **Taiwan's complete and competitive semiconductor and server supply chains**, this fueled high-tech export momentum, further widening the gap between actual and trend-projected real GDP to about NT\$3.1 (=25.9 – 22.8) trillion in 2025.

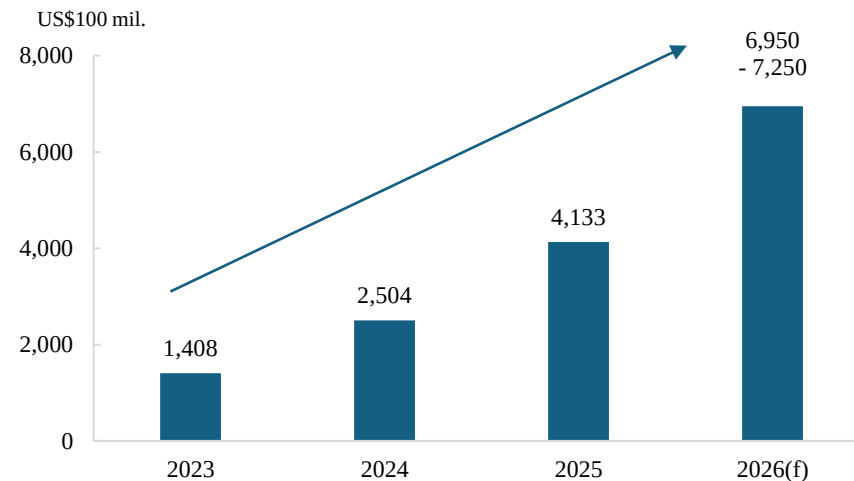
Figure 3: Taiwan's Actual Real GDP and Trend-Projected GDP (2007–2025)



Note: This report uses linear regression on real GDP data from 1998 to 2017 to project real GDP for 2018–2025, shown as the orange line.

Sources: DGBAS; estimates by this report.

Figure 4: Capex of Top 4 US CSPs



Notes: 1. Top 4 U.S. CSPs: Meta, Amazon, Google, and Microsoft.

2. (f) denotes forecasts

Sources: Compiled from company earnings calls and news reports.

II. Benefiting from the abovementioned dividends, Taiwan’s 2024–2025 economic growth markedly outpaced global average

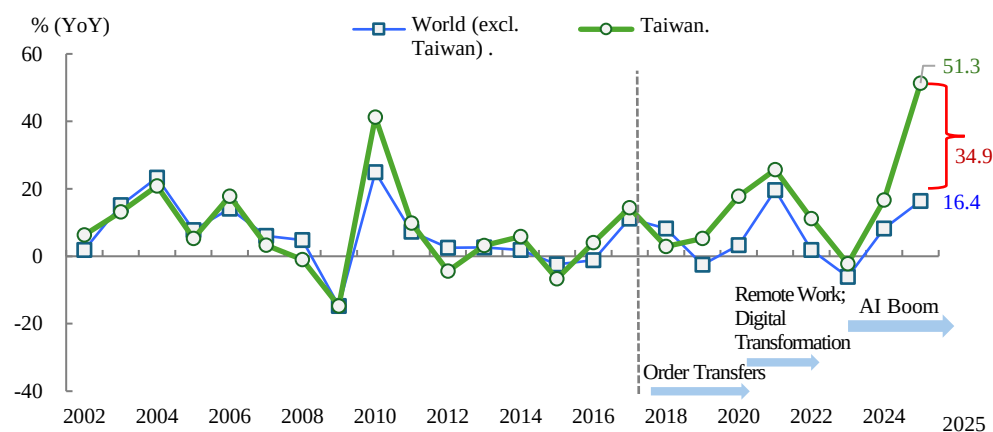
1. Taiwan’s high-tech export growth vs. international high-tech import growth (YoY)

- (1) Before 2018, the YoY growth of Taiwan’s high-tech exports moved largely in tandem with that of high-tech imports in the international market.
- (2) After 2018, driven by dividends such as order transfers, Taiwan’s export growth gradually outpaced global import growth. In 2024–2025, AI infrastructure buildout, the gap between Taiwan’s export growth and global import growth widened to 34.9 pps (51.3% – 16.4%) (Fig. 5).

2. Taiwan’s economic growth vs. global economic growth

- (1) In 2020, amid COVID-19, Taiwan’s manufacturing output was largely undisrupted and GDP grew 3.42%, well above the global rate of -2.94%.
- (2) Amid the AI boom, Taiwan occupies a pivotal position in the chip and infrastructure layers of the “AI five-layer cake” theory,⁶ making it among the biggest economic beneficiaries; its GDP growth markedly outpaced the global average by 2.43 pps in 2024 and 5.87 pps in 2025 (Fig. 6).

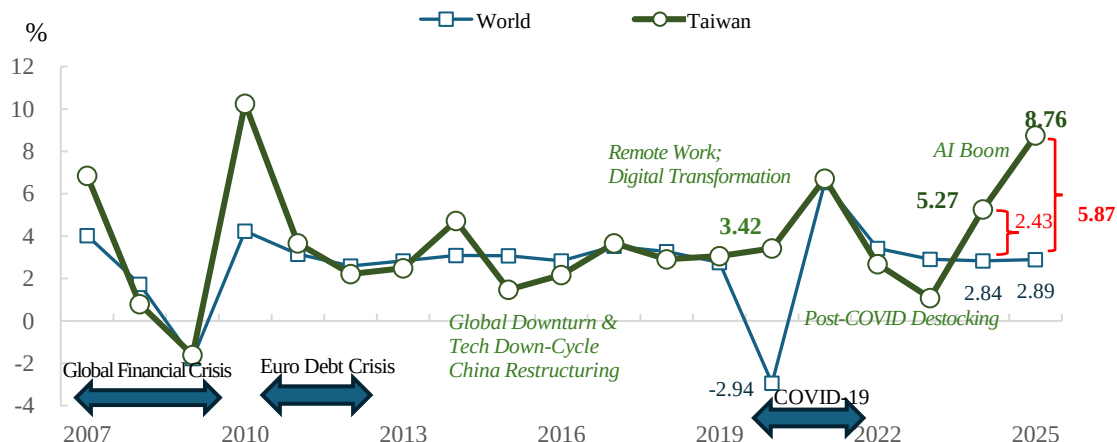
Figure 5: Taiwan’s High-Tech Exports and Global High-Tech Imports



Note: High-tech products refer to ICT and audio-video products, electronic components, and optical products.

Sources: Ministry of Finance; International Trade Centre.

Figure 6: Taiwan and Global Economic Growth Rates (2007–2025)



Sources: DGBAS; S&P Global.

⁶ The five-layer cake theory consists of the following five layers: energy, chips, infrastructure, models, and applications. See Huang, Jensen (2026), “AI Is a Five-Layer Cake,” Nvidia Blog, Mar. 10.

Q4: Has Taiwan’s traditional manufacturing competitiveness declined markedly since 2018?

A4: Despite headwinds from China’s low-price dumping, U.S. tariffs, and weak global end demand, Taiwan’s traditional manufacturing GDP still edged up, while continued increases in R&D investment for transformation and upgrading have lifted the sector’s value-added and competitiveness.

I. Amid global supply chain restructuring, Taiwan’s other manufacturing industries (mainly traditional industries, hereinafter “**traditional manufacturing**”) have not only **continued deepening their cross-border footprint** but also **strengthened Taiwan’s role as an R&D base** (Table 2).

Table 2: Taiwan’s Traditional Manufacturing: Trends in Production and R&D

Global Production Footprint & Supply Chain Restructuring	R&D Innovation & High Value-Added Development Strategy
Amid rising labor and other costs in Taiwan, firms increasingly shifted large-scale production activities overseas to enhance profitability: □ In the 1990s, firms moved production to China, establishing a cross-Strait division of labor. □ Since 2018, geopolitical tensions, U.S.-China trade disputes, and supply chain restructuring pressures have accelerated the shift of production to ASEAN countries and elsewhere, creating a “China Plus One” footprint to diversify geopolitical risks.	Transforming Taiwan into a hub for R&D, innovation, and high-value manufacturing: □ Strengthening regional industrial clusters to drive traditional manufacturing toward smarter, higher-value production: Example: The Taichung Precision Machinery Park and Kaohsiung Petrochemical Industrial Park, for example, foster innovation ecosystems and agglomeration economies that support this transition. □ Building on flexible, customized production and the “hidden champion” model to reinforce Taiwan’s role in global supply chains: Example: The automotive parts industry meets customized demand through flexible production; the textile industry is known worldwide for high-performance functional fabrics; and the bicycle, machinery, and fastener industries occupy key positions in global markets.

Source: Compiled by the CBC.

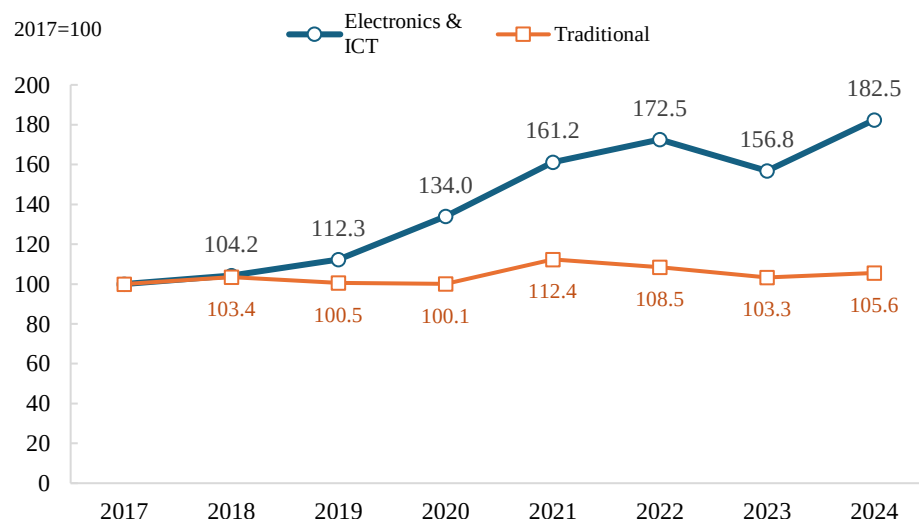
II. Despite external headwinds, Taiwan's traditional manufacturing sector still posted mild GDP growth while continuing to expand R&D spending to boost value-added.

1. Amid the impacts from the COVID-19 pandemic, China's low-price dumping, U.S. tariffs, and weak global end demand, Taiwan's traditional manufacturing GDP still posted mild growth rather than contracting.

(1) The real GDP index of **traditional manufacturing** (2017=100) **fell to a low of 100.1 in 2020 amid the pandemic (Fig. 7) but remained above 100 thereafter**. The index reached 105.6 in 2024, representing 5.6% growth from 2017.

(2) **Electronics and ICT manufacturing** grew at a 7.0% CAGR from 2017 to 2024, **outpacing traditional manufacturing's 1.6% growth**. The latter's share of total manufacturing output declined from 62.7% to 53.7% over the same period (Table 3).

Figure 7: Real GDP Indices: Electronics and ICT Manufacturing vs. Traditional Manufacturing



Sources: DGBAS; CBC estimates.

Table 3: Changes in Manufacturing Output¹: Electronics & ICT vs. Traditional

	Electronics and ICT Manufacturing	Traditional Manufacturing
2017	NT\$7.35 tril. (37.3%)	NT\$12.36 tril. (62.7%)
2024	NT\$11.84 tril. (46.3%)	NT\$13.74 tril. (53.7%)
CAGR²	7.0%	1.6%

Notes: 1. Output refers to nominal gross domestic product (GDP).

2. Given the substantial changes in output levels over the analysis period, the compound annual growth rate (CAGR) is used for the analysis. The formula is
$$\left[\sqrt[7]{(2024 \text{ output} \div 2017 \text{ output})} - 1 \right] * 100.$$

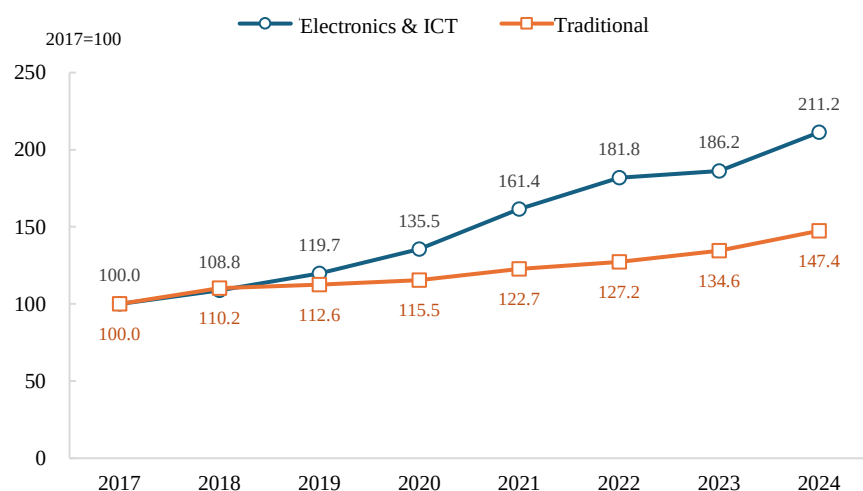
3. Figures in parentheses indicate the share of total manufacturing output.

Source: DGBAS.

2. To optimize production processes (e.g., through smart manufacturing), increase product value-added, and meet demand for electronics and ICT products, traditional manufacturing industries have continued to increase R&D spending.

- (1) **R&D spending by traditional manufacturing industries continued to increase, rising 47.4% from 2017 to 2024**, but still below the 111.2% increase for the electronics and ICT industry (Fig. 8).
- (2) **In 2024, most traditional manufacturing industries continued to increase R&D intensity** (measured as R&D spending as a share of product sales), which strengthened compared to 2017, **but remained below those of the computers, electronic and optical products sector** (10.25%) and the electronic parts and components sector (8.95%) (Table 4).

Figure 8: R&D Expenditure Index for Manufacturing (2017=100)



Source: *Survey of National Science and Technology Activity*, National Science and Technology Council.

Table 4: R&D Intensity in Major Manufacturing Sectors

Unit: %; pp

Sector		2017	2024	Change (2017 vs. 2024)
Traditional Manufacturing	Textiles	0.66	0.85	+0.19
	Leather, Fur and Related Products	5.86	12.39	+6.53
	Petroleum and Coal Products	0.18	0.25	+0.07
	Chemical Material and Fertilizers	0.41	0.57	+0.16
	Other Chemical Products	1.02	1.36	+0.34
	Pharmaceuticals and Medicinal Chemical Products	9.94	8.82	-1.12
	Rubber Products	1.44	1.55	+0.11
	Plastics Products	0.46	0.59	+0.13
	Other Non-metallic Mineral Products	0.42	0.5	+0.08
	Basic Metals	0.23	0.27	+0.04
	Fabricated Metal Products	0.19	0.26	+0.07
	Electrical Equipment	1.97	2.45	+0.48
	Machinery and Equipment	1.22	1.83	+0.61
	Motor Vehicles and Parts	1.12	1.51	+0.39
Electronics and ICT Manufacturing	Electronic Parts and Components	5.59	8.95	+3.36
	Computers, Electronic and Optical Products	10.14	10.25	+0.11

Note: R&D intensity is measured as R&D spending as a share of product sales.

Source: *Survey of National Science and Technology Activity*, National Science and Technology Council.

3. **Most traditional manufacturing industries have long pursued high value-added transformation**, continuously upgrading and driving up their value-added ratio.

(1) In 2024, **the value-added ratios** of machinery and equipment, electrical equipment, textiles, and plastics products manufacturing were 3.1, 3.9, 4.6, and 7.3 percentage points higher, respectively, than in 2017, reflecting **a sustained upward trend** (Table 5).

(2) For the petroleum and coal products and chemical materials and fertilizer industries, rising international raw material prices and net-zero transition-related factors sharply increased intermediate inputs, while intense international competition and weak demand further weighed on performance; as a result, their value-added ratios fell by 12.3 and 3.8 percentage points, respectively, in 2024 compared with 2017.

Table 5: Value-Added Ratios of Major Manufacturing Sectors

Unit: %, pp

		2017	2024	Change (2017 vs. 2024)
Traditional Manufacturing	Textiles	26.8	31.3	+4.6
	Leather, Fur and Related Products	32.6	42.2	+9.7
	Petroleum and Coal Products	21.9	9.7	-12.3
	Chemical Material and Fertilizers	20.9	17.1	-3.8
	Other Chemical Products	28.2	29.1	+0.9
	Pharmaceuticals and Medicinal Chemical Products	39.6	48.3	+8.6
	Rubber Products	37.9	42.6	+4.8
	Plastics Products	28.8	36.1	+7.3
	Other Non-metallic Mineral Products	30.0	29.8	-0.2
	Basic Metals	17.6	17.4	-0.2
	Fabricated Metal Products	33.3	32.1	-1.2
	Electrical Equipment	24.8	28.7	+3.9
	Machinery and Equipment	26.7	29.7	+3.1
	Motor Vehicles and Parts	29.1	31.8	+2.7
	Other Transport Equipment and Parts	24.1	26.8	+2.7
Electronics and ICT Manufacturing	Electronic Parts and Components	44.6	51.4	+6.8
	Computers, Electronic and Optical Products	25.7	39.3	+13.6

Note: Value-added ratio = [(GDP – intermediate inputs) / GDP] × 100, indicating the value-added generated per unit of output.

Source: DGBAS.

III. As Taiwan undergoes structural transformation, traditional manufacturing's upgrading and transformation by leveraging the strengths of the electronics and ICT sector would further support Taiwan's economic development

1. Taiwan's current economic performance is concentrated in the electronics and ICT manufacturing sector, reflecting a specialized division of labor in response to global market demand, rather than domestic market imbalance.

□ **The electronics and ICT manufacturing sector** is not a single industry, but one that **has deepened technological collaboration with upstream and downstream firms**, transforming a traditionally linear supply chain into a **highly interdependent ecosystem** – spanning upstream IC design and key materials, midstream wafer foundry and packaging/testing, and downstream end-device and system assembly.

2. Beyond established electronics and ICT firms, **traditional manufacturing industries are also leveraging cross-sector integration** to enhance value added and enter electronics and ICT supply chains.

□ **Localization and ecosystem integration of advanced materials & critical equipment**: Such as **precision instruments manufacturing** (semiconductor equipment) and **chemical material manufacturing** (specialty chemicals), which are part of the supply chains of semiconductor and critical equipment, **electrical equipment manufacturing** (power distribution for ai infrastructure), **fabricated metal products manufacturing** (heat dissipation and server racks for AI servers), construction (semiconductor facility engineering), etc. They have all broken traditional barriers and integrated into ICT ecosystem.

□ **Expanding cross-domain scope**: **Fabricated metal products, rubber and plastic products**, and **transport equipment parts** have integrated **sensing and communication technologies** to become a key link in the global automotive electronics supply chain.

IV. Taiwan currently faces a sectoral divergence where ICT manufacturing outperforms traditional manufacturing; however, traditional manufacturing continues to grow and strives toward high value-added, while entering AI and other supply chains for industrial upgrading and transformation. This shows a significant difference from the industrial development of the Netherlands in the 1960s (Table 6).

Table 6: Taiwan's Growth Pattern Differs from Dutch Disease

	Taiwan's Current Industrial Development	Netherlands in the 1960s
Growth Driver	Electronics and ICT manufacturing has secured a globally significant and leading position through sustained R&D spending and process innovation, making it a knowledge- and technology-intensive industry	Reliant on the extraction of natural resources (e.g., oil and natural gas), with economic prosperity contingent on volatile international commodity prices
Linkage with Domestic Supply Chains	Tight integration within the electronics and ICT manufacturing sector, with traditional manufacturing gradually joining in, expanding the ecosystem over time	Extremely weak linkage between the resource sector and other domestic industries, making technology spillover effects difficult to generate
Impact on Other Manufacturing Industries	Traditional manufacturing has continuously strengthened competitiveness and value-added ratio by integrating into ecosystems such as AI	Other manufacturing industries contracting

Source: Compiled by the CBC.

Q5: Is the divergence between electronics/ICT and traditional manufacturing unique to Taiwan?

A5: Buffeted by adverse external conditions, traditional industries have underperformed amid external headwinds, a pattern seen not only in Taiwan but also in South Korea and Japan.

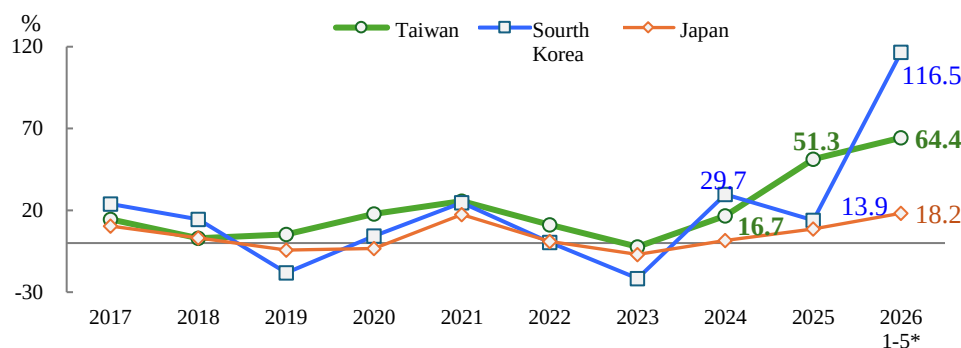
I. Taiwan and Korea share a common feature: high-tech exports have markedly outperformed traditional goods exports.

1. High-tech products: Benefiting from AI development dividends driven by the U.S. and other countries, Taiwan and Korea have posted stellar high-tech export performance, particularly Taiwan.

Goldman Sachs notes current AI dividends are concentrated in semiconductors and related supply chains;⁷ per the 2024–2026 data, export growth has sustained double digits for both: 16.7%, 51.3%, and 64.4% for Taiwan, and 29.7%, 13.9%, and 116.5% for Korea⁸ (Fig. 9).

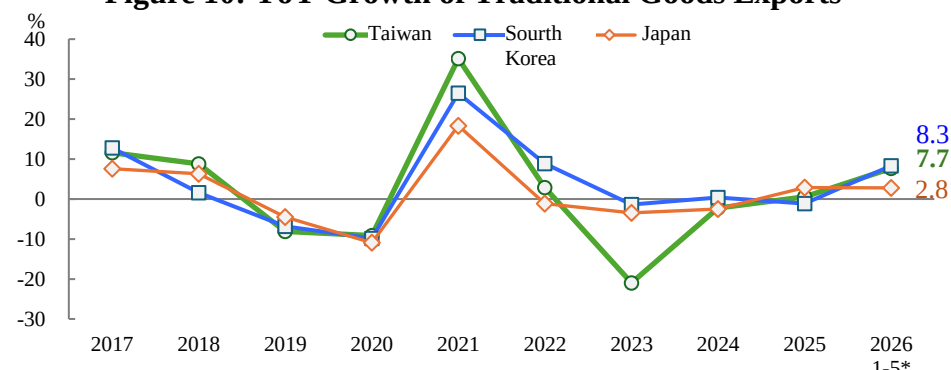
2. Traditional goods: Similarly hit by China’s low-price dumping, U.S. tariff hikes,⁹ and weak end demand, traditional goods exports from Taiwan, Korea, and Japan have all underperformed high-tech exports. Traditional goods exports from Taiwan and Korea have gradually recovered in the year to date, growing 7.7% and 8.3%, respectively (Fig. 10).

Figure 9: YoY Growth of High-Tech Exports



Notes: 1. High-tech exports: ICT and audio-video products, electronic components, and optical products.
2. Japan’s high-tech products include re-exports (HS99) that cannot be broken down by product category.
3. *Data cover Jan.-May 2026 for Taiwan, and Jan.-Apr. 2026 for Japan and South Korea.
Sources: Ministry of Finance; International Trade Centre.

Figure 10: YoY Growth of Traditional Goods Exports



Notes: 1. Traditional goods exports: excluding high-tech products and agricultural products.
2. In 2023, Taiwan’s traditional goods exports declined more sharply than those of Japan and South Korea, mainly owing to more extensive industry destocking; in Japan and South Korea, positive growth in transport equipment exports such as automobiles partly offset the impact of weak performance in other products.
3. *Data cover Jan.-May 2026 for Taiwan, and Jan.-Apr. 2026 for Japan and South Korea.
Sources: Ministry of Finance; International Trade Centre.

⁷ Goldman Sachs (2026), “AI Spend vs. Benefit,” Apr.

⁸ In the year to date, driven by the AI boom, supply shortages of core memory chips (e.g., HBM) have led to sharp price increases, pushing South Korea’s ICT and audio-video products (mainly memory modules) and electronic components (mainly memory chips) up 131.3% and 124.5%, respectively.

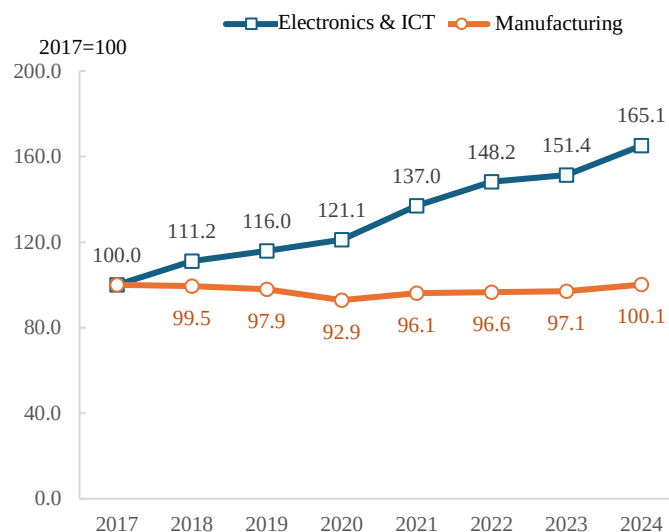
⁹ U.S. Section 232 and IEEPA tariffs mainly target traditional goods (steel, aluminum, copper, autos/parts), excluding semiconductors and derivatives. As of Jan. 15, 2026, Section 232 covers certain advanced servers, graphics cards, and PC components, but exemptions apply.

II. In Korea and Japan, GDP in the electronics and ICT manufacturing sector also outpaced that in traditional manufacturing, whose GDP index in 2024 fell below its 2017 level

1. Korea's indexed real GDP in electronics/ICT and traditional manufacturing has shown a pattern similar to Taiwan's (Fig. 11), with the two sectors diverging sharply amid the AI-driven tech boom: 165.1 for electronics/ICT versus 100.1 for traditional manufacturing in 2024.
2. Japan's sector divergence has not widened as much as Taiwan's and Korea's, but its indexed real GDP in electronics/ICT manufacturing still outpaced traditional manufacturing, at 124.6 versus 95.2 in 2024.
3. In addition, Taiwan's indexed real GDP in traditional manufacturing exceeded its 2017 level in 2024, while Japan's fell below its 2017 level and Korea's showed little change from 2017. Korea, in particular, may have been affected by import substitution from China and weak domestic investment, with its indexed real GDP staying below 100 persistently.

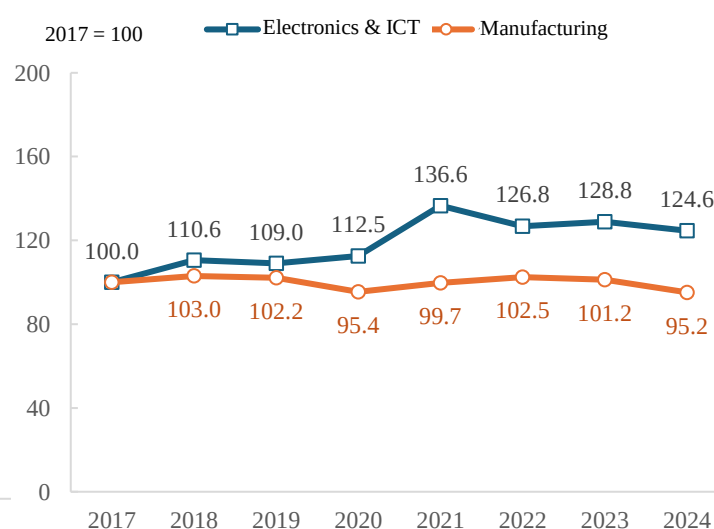
Figure 11: Indexed Real GDP: Electronics/ICT vs. Traditional Manufacturing (2017=100)

(A) South Korea



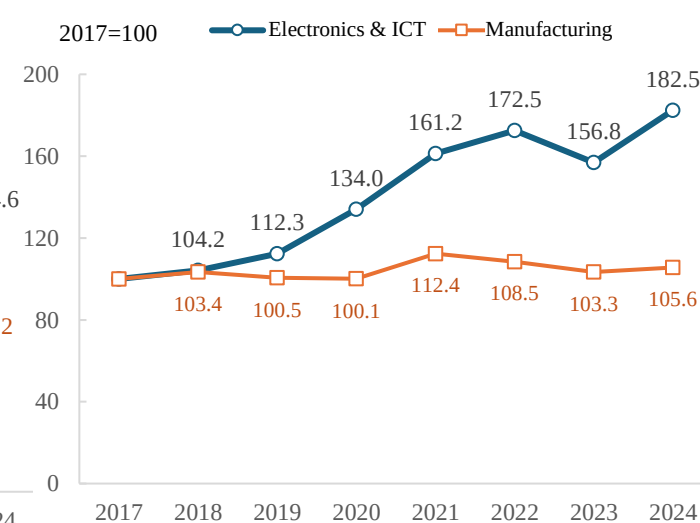
Sources: BOK; CBC estimates.

(B) Japan



Sources: Cabinet Office of Japan; CBC estimates.

(C) Taiwan



Sources: DGBAS; CBC estimates.