PRODUCTION FORECASTS FOR THE

GLOBAL ELECTRONICS AND

INFORMATION TECHNOLOGY INDUSTRIES

December 19, 2024



JAPAN ELECTRONICS AND INFORMATION TECHNOLOGY INDUSTRIES ASSOCIATION

FOREWORD

In 2024, easing inflation pressures in developed countries, government economic support measures, and the expansion of the digital economy saw the global economy maintain steady growth. In its October 2024 World Economic Outlook, the IMF forecast that the 3.3% lift in the 2023 real economic growth rate would be followed by 3.2% increases in both 2024 and 2025, anticipating stable growth but with slightly less momentum. Geopolitical risks remain a concern, with international cooperation and policy responses holding the key to economic stability.

Given the economic environment, the annual industries survey conducted by JEITA estimated that production by the global electronics and information technology industries would rise 9% year on year to \$3,703.2 billion in 2024 and 8% year on year to \$3,990.9 billion in 2025. In 2024, the proliferation of generative AI led to the expansion of data centers and cloud services, pushing up demand for high-performance servers and semiconductors. Solution services also boomed, contributing to electronics and IT industry growth. Digital investment should continue to expand in 2025, with the electronics and IT industries underpinning sustained global economic growth and innovation. Global production by Japanese electronics and IT companies is expected to lift 6% year on year in 2024 to \$41,200 billion and 4% year on year in 2025 to \$42,900 billion. Echoing market trends in global production, major growth is anticipated for electronic components, semiconductors, and solution services.

In this environment, JEITA as Japan's leading digital industry association will work to create digital technologies, improve business conditions, and enhance the industry's global competitiveness, while also aiming to realize Society 5.0. We will continue to work closely with our members, the government, and related institutions to fulfil our responsibilities in terms of solving social challenges and revitalizing the Japanese economy.

In our fifteenth "Trends Survey of Focused Areas," JEITA took up the theme of "Advent of the SDV Era: Market Prospects for Electrical Equipment, Semiconductors, and Electronic Components." The survey forecasts global production volumes for Software Defined Vehicles (SDV) and identifies global and domestic market trends for electrical equipment, semiconductors, and electronic components through to 2035 in response to the evolution of Electrical/Electronic (E/E) architecture.

JEITA will continue to enhance its activities by seeking out comments and opinions widely from both within and outside the electronics and IT industries. We will strive to contribute to the growth of these industries and better lifestyles for people everywhere. We will continue to report on our progress in the future in the sincere hope that information from JEITA proves to be a valuable resource.

December 2024 Kazuhiro Tsuga Chairperson Japan Electronics and Information Technology Industries Association (JEITA)

PRODUCTION TRENDS IN THE GLOBAL ELECTRONICS AND INFORMATION TECHNOLOGY INDUSTRIES (IN DOLLAR TERMS)

Total global production by the electronics and IT industries is expected to climb 9.0% year on year in 2024 to \$3,703.2 billion, showing positive growth. More digitalization investment boosted solution services, and electronic equipment and electronic components and devices moved back into positive territory thanks to generative AI and other advanced technologies. In 2025, further digitalization investment should produce positive growth of 8% year on year to reach \$3,990.9 billion.

[Production by the Global Electronics and IT Industries (in dollar terms)]

Production by the global electronics and IT industries is expected to grow 9% year on year in 2024 and 8% in 2025.

The surge in fuel and raw material prices triggered by recent geopolitical risks has created a sub-optimal economic climate, depressing personal consumption and causing an economic slowdown in China. The global electronics and IT industries, however, should enjoy positive growth in 2024, thanks to electronic equipment and electronic components and devices recovering from the post-pandemic demand slump and the advance of digitalization pushing solution services to new heights. With ongoing digitalization investment and governments pursuing digital transformation (DX) through generative AI and other innovative technologies so as to transform society, companies, and industries and realize economic growth, demand will increase for solution services, as well as for semiconductors

for AI servers. We consequently anticipate positive growth continuing in 2025.

Looking at changes from 2014 to 2024, production soared from \$335.8 billion to \$601.2 billion in semiconductors, and from \$717.6 billion to \$1,418.9 billion in solution services. As a result, overall global production realized an average annual growth rate of 7.1% over that period. By contrast, global production by Japanese electronics and IT companies declined from \$367.5 billion in 2014 to \$273.1 billion in 2024, meaning an average annual growth rate of -2.9%. While this was partially due to the weak yen, the main cause was the slump in demand for traditional AV devices like music players due to the spread of smartphones and the growing sophistication of their functions. Domestic smartphone manufacturers exiting the market or reducing their operations also contributed to market shrinkage.



*World GDP is from IMF data





Communications equipment

2%

PRODUCTION FORECASTS FOR THE GLOBAL ELECTRONICS AND INFORMATION TECHNOLOGY INDUSTRIES (IN DOLLAR TERMS)

Overall production by the global electronics and IT industries (in dollar terms) should see positive growth in 2024 driven by the robust performance of servers, storage, and semiconductors, as well as the advance of solution services. In 2025, servers and semiconductors will maintain their momentum, which, along with ongoing digitalization efforts in countries around the world, is projected to produce positive growth for electronic equipment and devices and solution services. Electronic components and devices should top \$1,000 billion for the first time since this survey began.

In 2024, soaring energy and raw material prices and geopolitical risks slowed personal consumption and capital investment. The solid performance of the US economy was counterbalanced by the protracted and seemingly inveterate slump in the Chinese real estate market, with the recovery in the world economy remaining slow and patchy. In its October World Economic Outlook, the IMF forecast a real GDP growth rate of 3.2% for 2024, a slowdown on the previous year.

In 2024, AI servers and storage remained buoyant, while high-performance chip demand is expected to bolster electronic components and devices. Solution services continue to grow on the back of digitalization and increasingly sophisticated data utilization particularly in the automobile and industry sectors. The 2024 global production of the electronics and IT industries (the total of the

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electronics industry and solution services) is consequently forecast to surge 9% year on year to \$3,703.2 billion. Of this total, global production by the electronics industry (hardware, including electronic equipment, components, and devices) too is forecast to rise 9% year on year to \$2,270.2 billion.

Looking ahead to 2025, US policy trends will have more impact than in 2024, with risk factors expanding. At the same time, digital innovation driven by generative AI should mean stable demand for electrical equipment and increased demand for solution services. The trend toward AI-equipped computers and smartphones in particular is expected to push up highperformance chip demand. Production by the global electronics and IT industries should record positive growth in 2025, increasing 8% year on year to \$3,990.9 billion.

Production by the Global Electronics and IT Industries (IN DOLLAR TERMS)



FORECASTS OF GLOBAL PRODUCTION BY JAPANESE COMPANIES (IN YEN TERMS)

In 2024, global production by Japanese electronics and IT companies (including offshore production) is projected to increase year on year. The weak yen helped digital components and devices to recover and kept high-performance digital cameras and printers and electric measuring instruments stable thanks to their greater price competitiveness, while demand for computers and solution services also grew. Positive growth awaits again in 2025, when steady progress with DX should see solution services continue to grow, and AI applications and vehicle electrification are expected to create demand for electronic components and devices.

In Japan, yen depreciation continues to put upward pressure on fuel and food prices, but companies in general have improved their profits by passing on rising costs to customers. Policies such as the flat-rate tax reduction have failed to return consumer spending to pre-pandemic levels. Overall, the Japanese economy is gradually recovering, albeit in a rather seesaw fashion.

The electronics and IT industries have enjoyed greater semiconductor demand driven by surging AI demand, computer replacement demand due to the end of support for Windows 10, and growth in mirrorless and other fixed-lens cameras. Production by Japanese electronics and IT companies (including offshore production) is consequently expected to rise 6% year on year in 2024 to $\frac{1}{4}$ 1,181.3 billion, within which

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electronics production should also climb 6% year on year to ¥32,182.3 billion.

Looking ahead, equipping servers, computers, smartphones and other electronic devices with generative AI should expand demand for components. Semiconductor electronic production as a whole should increase thanks to the ongoing international price competitiveness afforded by the weak yen, as well as continued robust demand for energy-efficient chips in the move toward carbon neutrality. Computer replacement demand remains strong with the end of support for Windows 10, and demand for AIequipped computers is also expected to rise from mid-2025. As a result, global production by Japanese electronics and IT companies should record positive growth of 4% year on year in 2025 to reach ¥42,861.3 billion.

Global Production by Japanese Electronics and IT Companies (IN YEN TERMS)

					4%	428,613	electronics and IT companies
309 275			6%	411,813	-3%	28,659	AV equipment
330,273	-2%	388,389	-1%	29,693	00/	17,855	Communications equipment
31,996	-0%	29,972	10/	17,850	0%	_	
20,180	-10%	18,076	-170		2.70	67.076	Computers & information terminal
	-2%	_	870	65,867			
62,607		61,075					
			40/	27 730	3%	28,660	Other electronic equipment
26,920	-1%	26.675	4 70	21,100	6%		
_	-4%		6%				
						112,142	Electronic components
102 041		99 193		105,601			
103,041		55,155	20%		-48%		
				7.424		3,893	Display devices
12,090	-23%	9,259	12%		11%		
	-3%	CO 407		67,658		74,800	Semiconductors
62,007		60,407					
	F0/	-	7%		6%		
	5%		170				
79 434		83,732		89,990		95,528	Solution services
10,101							
2022		2022		2024		2025	
(Results)		(Results)		(Estimates)		(Forecasts)	

(¥100 million, % change (YoY))

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FORECASTS OF DOMESTIC PRODUCTION BY THE JAPANESE ELECTRONICS INDUSTRY (IN YEN TERMS)

In 2024, electronic equipment has been robust thanks to computer replacement demand along with server and storage demand driven by AI and data utilization, while electronic components and devices are recovering on the back of the increased international price competitiveness lent by yen depreciation. Domestic production by the Japanese electronics industry is consequently expected to land on the right side of the ledger and remain there in 2025 due to production growth for electronic components and devices powered by increasing AI demand.

With the yen continuing to weaken in 2024, the price competitiveness of Japanese electronic components and devices in international markets is improving. In the auto sector, the ongoing transition to EVs and the advance of automated driver-assistance functions are boosting demand for electronic components and devices. Interest in carbon neutrality remains strong worldwide, underpinning demand for energyefficient semiconductors. Demand in smartphone, laptop, server, and storage applications is also anticipated. Domestic production for 2024 is consequently expected to climb 6% year on year to ¥11,298.4 billion.

Looking ahead, with more IT investment particularly in AI, a production recovery for domestic auto makers, and home appliances and industrial equipment breaking out of their slump, electronic components as a whole should enjoy positive growth. For semiconductors, the EV transition and the worldwide shift toward carbon neutrality are likely to foreground environmentally-friendly equipment, which will in turn boost demand, so double-digit growth is expected again in 2025. As a result, domestic output in 2025 is projected to rise 3% year on year to \$11,646.3 billion.

Domestic production is set to account for 35% of the total global production by Japanese companies in 2025. The ratio of domestic production should particularly remain strong in areas requiring high reliability and outstanding performance, such as electric measuring instruments (67% manufactured in Japan), electronic medical equipment (65%), display devices (61%), server/storage equipment (57%), and semiconductors (53%).

Domestic Production by the Japanese Electronics Industry (IN YEN TERMS)

109,605 3,689 6,674 9,573	-3% 10 13% 4 8% 7 9% 7	06,757 6% 4,183 1% 7,240 5%	112,984 4,111 7,326 10,934	3% 1% 1% 3%	116,463 4,148 7,368 11,269	Global production by Japane electronics and IT companies AV equipment Communications equipment Computers & information terminal
15,476	-2%	5,232	15,442	3%	15,936	Other electronic equipment
33,966	-7%	7%	33,732	176	35,965	Electronic components
9,919	-25% 7	7,425 -21% 16%	5,892	-60% 11%	2,365	Display devices
30,306	3	0,611	35,547		39,413	Semiconductors
2022 (Results)	2 (R	2023 esults)	2024 (Estimates)		2025 (Forecasts)	



