2009 PRODUCTION FORECASTS FOR THE GLOBAL ELECTRONICS AND INFORMATION TECHNOLOGY INDUSTRIES

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JEITA

JAPAN ELECTRONICS AND INFORMATION TECHNOLOGY INDUSTRIES ASSOCIATION

Foreword

This report summarizes the results of a survey of companies participating in product sector-specific boards in the Japan Electronics and Information Technology Industries Association (JEITA). Thanks to the participation of these boards, one of the unique characteristics of our association, I am confident of the high quality of the survey results.

The year 2008 was characterized by instability on a level never seen before, including the sudden rise in raw materials prices, the rapid degeneration of the bursting of the U.S. housing bubble into a full-scale financial crisis, the global drop in stock prices, and wild fluctuations in currency exchange rates and crude oil prices.

This year's survey was particularly difficult considering the economic environment, but thanks to the cooperation of the participating companies, the results present an accurate picture of where the industry stands today. In addition, backed by the results of the first and second surveys, we have endeavored to paint a highly realistic picture of the industry through mid-November 2008.

The results of the survey are presented in this report under the themes of "Production Forecasts for the Global Electronics and Information Technology Industries," "Forecasts of Global Production by Japanese Companies" and "Forecasts of Domestic Production by the Japanese Electronics Industry."

According to the survey, global production by the electronics and IT industries is forecast to rise to ¥241 trillion in 2009. Japanese companies are expected to account for one-fifth of this production, or about ¥50 trillion. Domestic production by Japanese companies is seen slipping to ¥19 trillion, while offshore production by Japanese companies is forecast to rise slightly, to ¥25 billion.

Amidst what some analysts are calling a once-in-a-century global financial crisis, expectations are high that the electronics and IT industries will contribute to the resolution of both the world economy and global warming.

This survey is a work in progress. We will continue to expand and improve it based on the comments and suggestions of readers to make the results useful not only for the industries, but for the world at large.

Tsutomu Handa
President
Japan Electronics and Information Technology Industries Association (JEITA)

Production Forecasts for the Global Electronics and Information Technology Industries

Production by the global electronics and IT industries is estimated to reach ¥237.1 trillion in 2008, approximately the same level as in 2007. In 2009, a 2% increase is forecast, to ¥241.0 trillion. The financial crisis prevented the kind of double-digit growth seen in 2007. However, while economic instability obscures the picture for 2009, IT solutions and services are seen underpinning a slight rise in production.

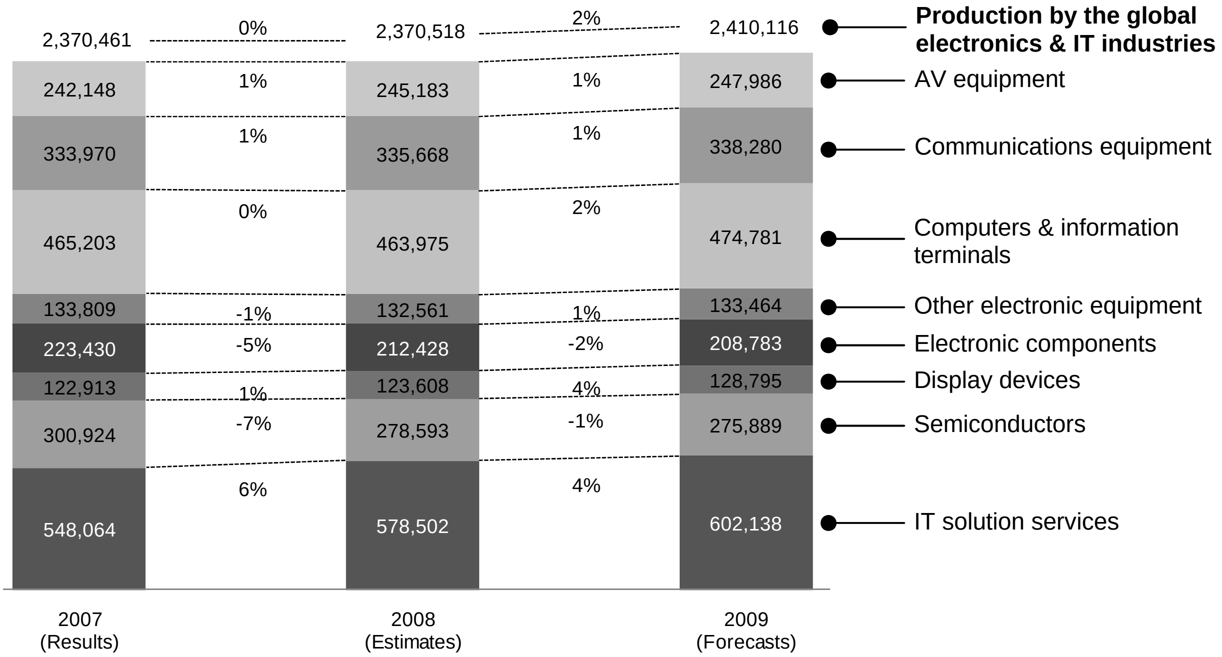
The economic confusion that began with the bursting of the U.S. housing bubble spread to Europe and newly emerging economies, becoming a global financial crisis. This situation, combined with wildly fluctuating crude oil prices and currency exchange rates to create an extremely volatile environment. The increasingly unclear economic situation caused a drop in consumer spending, the unfavorable results of which are starting to be seen in the housing and automotive sectors. Despite these conditions, production by the electronics and IT industries (including solutions and services) is expected to remain steady at ¥237.1 trillion. However, electronics production (hardware including electronic equipment, components and devices) is seen slipping some 2%, to ¥179.2 trillion.

Recent rapid growth in industry production, the result of strong consumer spending backed by economic expansion in emerging economies, came to a sudden halt in 2008. Demand is also appearing for low-cost products, such as flat-panel-display (FPD) TVs, personal computers (PCs) and mobile phones, with highly specific functions. Since the expanding range of products is not leading to increased production, the industry is being sustained by IT solutions and services.

In 2009, the financial crisis will continue to wreak economic havoc in Europe and America. Emerging economies, unable to escape the effects of this situation, will suffer a slowdown of the strong economic expansion achieved to date. However, the electronic and IT industries are predicted to continue growing despite such conditions. Although concerns do exist in the marketplace, production will continue to be supported by corporate activities to strengthen internal information management, including information security and compliance with SOX regulations. IT will be used a tool to differentiate management strategies. In addition, new services will lead to the adoption of high-value-added equipment and an increase in hardware production by the industry.

Production by the Global Electronics and IT Industries

(¥100 million; % change YoY)



Production by the Global Electronics and IT Industries

(Units: 100 million yen)

	2007 (Results)	% change YoY	2008 (Estimates)	% change YoY	2009 (Forecasts)	% change YoY
Electronics & IT Industries	2,370,461	10%	2,370,518	0%	2,410,116	2%
Electronics Industry	1,822,397	8%	1,792,016	-2%	1,807,978	1%
Electronic Equipment	1,175,130	8%	1,177,387	0%	1,194,511	1%
AV	242,148	7%	245,183	1%	247,986	1%
TVs (LCD, PDP, rear-projection, CRT)	134,258	9%	140,316	5%	141,695	1%
Image recording/playback (DVD recorder, DVD player, VTR)	9,224	7%	9,343	1%	11,429	22%
Imaging (video camera, digital camera)	24,637	6%	24,599	0%	24,870	1%
Car AVC (audio, navigation systems)	32,644	16%	31,281	-4%	31,434	0%
Audio (portable, home, hearing aids)	41,385	-1%	39,644	-4%	38,558	-3%
Communication	333,970	11%	335,668	1%	338,280	1%
Wireless (broadcasting, fixed/mobile communications, wireless applied devices)	234,175	9%	236,372	1%	239,977	2%
Mobile telephones	166,007	10%	165,451	0%	167,254	1%
Telecommunications (telephone, fax, switcher)	99,795	14%	99,296	-1%	98,303	-1%
Computers and information terminals	465,203	9%	463,975	0%	474,781	2%
Server storage (mainframe, midrange, network storage)	74,829	5%	69,990	-6%	71,096	2%
PCs (desktop, notebook)	220,875	12%	223,620	1%	228,574	2%
Information terminals	169,499	6%	170,365	1%	175,111	3%
Display monitors (LCD, CRT)	35,493	7%	35,838	1%	35,362	-1%
Memory devices (magnetic disk/optical disk)	47,137	5%	46,806	-1%	47,952	2%
Printers (single/multiple function)	40,774	3%	41,359	1%	41,625	1%
Others	133,809	1%	132,561	-1%	133,464	1%
Electric measuring instrumentation	39,540	4%	37,872	-4%	37,687	0%
Electronic applied devices (X-ray, ultrasound, industry-use TVs, office equipment)	94,269	1%	94,689	0%	95,777	1%
Electronic components & devices	647,267	9%	614,629	-5%	613,467	0%
Electronic components (passive, connecting, transducers, PCBs, others)	223,430	8%	212,428	-5%	208,783	-2%
Display devices (LCDs, PDP modules, CRTs)	122,913	24%	123,608	1%	128,795	4%
Semiconductors	300,924	4%	278,593	-7%	275,889	-1%
IT solution services	548,064	15%	578,502	6%	602,138	4%
SI development (consulting/system integration)	172,421	15%	180,007	4%	186,164	3%
Software (application packages, middleware, OS)	152,656	10%	159,007	4%	164,032	3%
Outsourcing & other services (ASP, maintenance, remote monitoring)	222,987	20%	239,488	7%	251,942	5%

Note: Figures are rounded, so the sums of items do not necessarily match the column totals.

Forecasts of Global Production by Japanese Companies

Global production by Japanese electronics and IT companies is estimated to decline 3% in 2008, to ¥49.7 trillion. On the other hand, this level is forecast to be maintained at ¥49.9 trillion in 2009. Production by Japanese electronics and IT companies accounts for 21% of the global total, a major share. These companies are facing increasing global competition, a situation which is exacerbated by the economic climate, but demand is seen increasing for audiovisual (AV) equipment such as TVs.

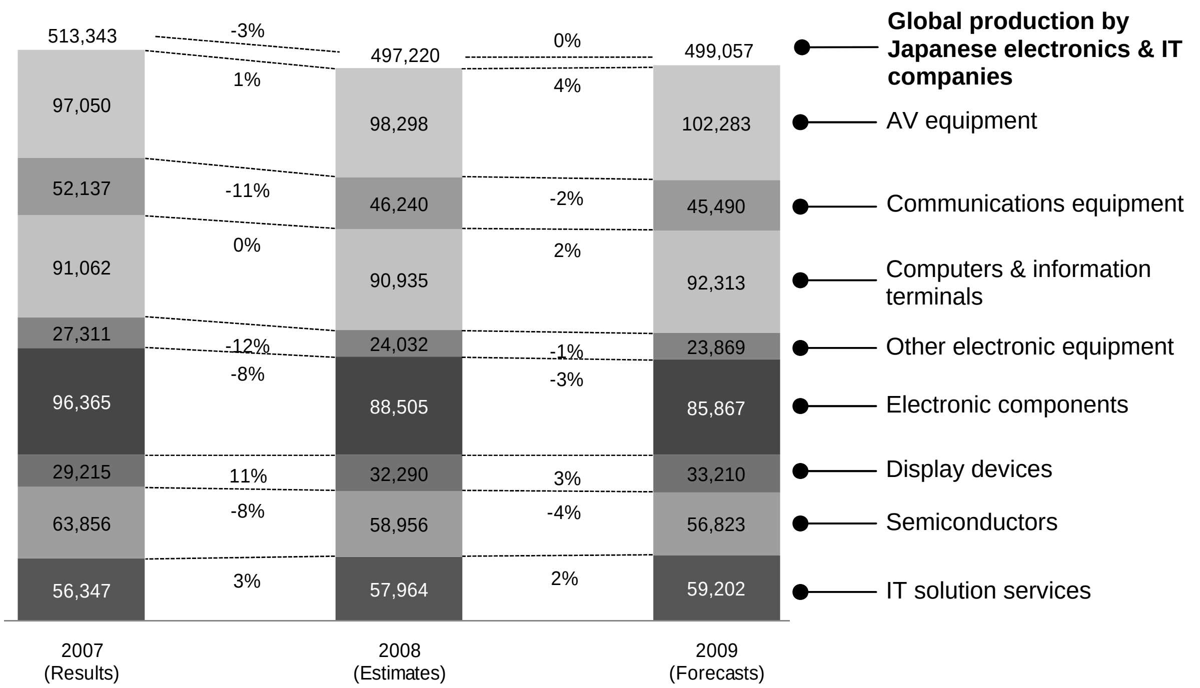
In 2008 global production by Japan's electronics and IT industries, including overseas production, is estimated to dip 3%, to ¥49.7 trillion. Of this total, global electronics production by Japanese companies is expected to decrease 4%, to ¥43.9 trillion. These companies are expected to maintain their competitiveness even amidst increasing globalization and to continue to hold a major share of the worldwide market. However, rising raw materials prices, the global financial crisis and the rapidly rising yen are impacting the profitability of Japanese companies. In addition, the overseas market share of Japanese companies is slipping as the high-performance, high-value-added products in which they specialize are challenged by low-cost products with highly specific functions from other companies in Asia. The effects of this situation are being seen in production of electronic components and semiconductors, areas in which Japanese companies maintain a high share and demand from overseas is strong.

In 2009, global production of both electronics and IT products, and electronic equipment is seen maintaining the same level as in 2008. While the current harsh conditions will continue, demand for high-performance, high-value-added products and equipment with high-resolution displays in the Japanese market, in particular, are seen propelling demand for AV equipment and display devices. Furthermore, new IT services are expected to be developed to support management reform and drive business improvement despite the economic downturn.

In 2008, the product segments for which Japanese companies maintained the highest market share centered on AV equipment and electronic components, specifically image projection equipment (92%), video recording and playback equipment (56%), car AV communications equipment (46%), electronic components (42%) and memory devices (36%).

Global Production by Japanese Electronics and IT Companies

(¥100 million; % change YoY)



Global Production by Japanese Electronics and IT Companies

(Units: 100 million yen)

	2007 (Results)		2008 (Estimates)		2009 (Forecasts)	
		% change YoY		% change YoY		% change YoY
Electronics & IT Industries	513,343	5%	497,220	-3%	499,057	0%
Electronics Industry	456,996	5%	439,256	-4%	439,855	0%
Electronic Equipment	267,560	3%	259,505	-3%	263,955	2%
AV	97,050	-3%	98,298	1%	102,283	4%
TVs (LCD, PDP, rear-projection, CRT)	44,455	-13%	46,547	5%	48,337	4%
Image recording/playback (DVD recorder, DVD player, VTR)	5,165	26%	5,230	1%	7,270	39%
Imaging (video camera, digital camera)	22,210	13%	22,568	2%	22,924	2%
Car AVC (audio, navigation systems)	15,139	6%	14,496	-4%	14,764	2%
Audio (portable, home, hearing aids)	10,081	-8%	9,457	-6%	8,988	-5%
Communication	52,137	8%	46,240	-11%	45,490	-2%
Wireless (broadcasting, fixed/mobile communications, wireless applied devices)	39,309	12%	33,963	-14%	33,459	-1%
Mobile telephones	29,089	16%	23,655	-19%	22,993	-3%
Telecommunications (telephone, fax, switcher)	12,828	0%	12,277	-4%	12,031	-2%
Computers and information terminals	91,062	9%	90,935	0%	92,313	2%
Server storage (mainframe, midrange, network storage)	7,671	-2%	7,631	-1%	7,563	-1%
PCs (desktop, notebook)	35,696	16%	36,664	3%	36,924	1%
Information terminals	47,695	7%	46,640	-2%	47,826	3%
Display monitors (LCD, CRT)	2,379	-19%	2,197	-8%	2,102	-4%
Memory devices (magnetic disk/optical disk)	16,777	7%	16,627	-1%	17,355	4%
Printers (single/multiple function)	14,158	13%	13,773	-3%	13,969	1%
Others	27,311	-2%	24,032	-12%	23,869	-1%
Electric measuring instrumentation	7,566	-5%	6,241	-18%	6,403	3%
Electronic applied devices (X-ray, ultrasound, industry-use TVs, office equipment)	19,745	-1%	17,791	-10%	17,466	-2%
Electronic components & devices	189,436	7%	179,751	-5%	175,900	-2%
Electronic components (passive, connecting, transducers, PCBs, others)	96,365	8%	88,505	-8%	85,867	-3%
Display devices (LCDs, PDP modules, CRTs)	29,215	10%	32,290	11%	33,210	3%
Semiconductors	63,856	4%	58,956	-8%	56,823	-4%
IT solution services	56,347	5%	57,964	3%	59,202	2%
SI development (consulting/system integration)	26,578	10%	27,452	3%	28,034	2%
Software (application packages, middleware, OS)	22,119	1%	22,645	2%	23,126	2%
Outsourcing & other services (ASP, maintenance, remote monitoring)	7,650	-1%	7,867	3%	8,042	2%

Note: Figures are rounded, so the sums of items do not necessarily match the column totals.

Forecasts of Domestic Production by the Japanese Electronics Industry

In 2008, domestic production by the Japanese electronics industry is estimated to decline 4%, to ¥19.4 trillion, the second consecutive year-on-year contraction and the first drop below the ¥20 trillion mark in three years. Another slight drop of 2%, to ¥19.0 trillion, is forecast in 2009. Domestic production of FPD TVs, BD recorders and other products is seen rising with the approach of the full-scale shift to digital terrestrial TV broadcasting in Japan in 2011 but is expected to be outpaced by a decrease in demand for semiconductors, electronic components and mobile phones, large ratios of which are produced in Japan.

As the global financial crisis worsened, domestic production rapidly fell in the second half of 2008. The sudden and sharp rise in the value of the yen is impacting the profitability of Japanese companies, leading to a slowdown in capital investment and lower employee salaries, and spawning concerns about consumer spending. Domestic production of electronic components and devices for export, which has increased year-on-year since 2002, is also expected to decrease in 2008.

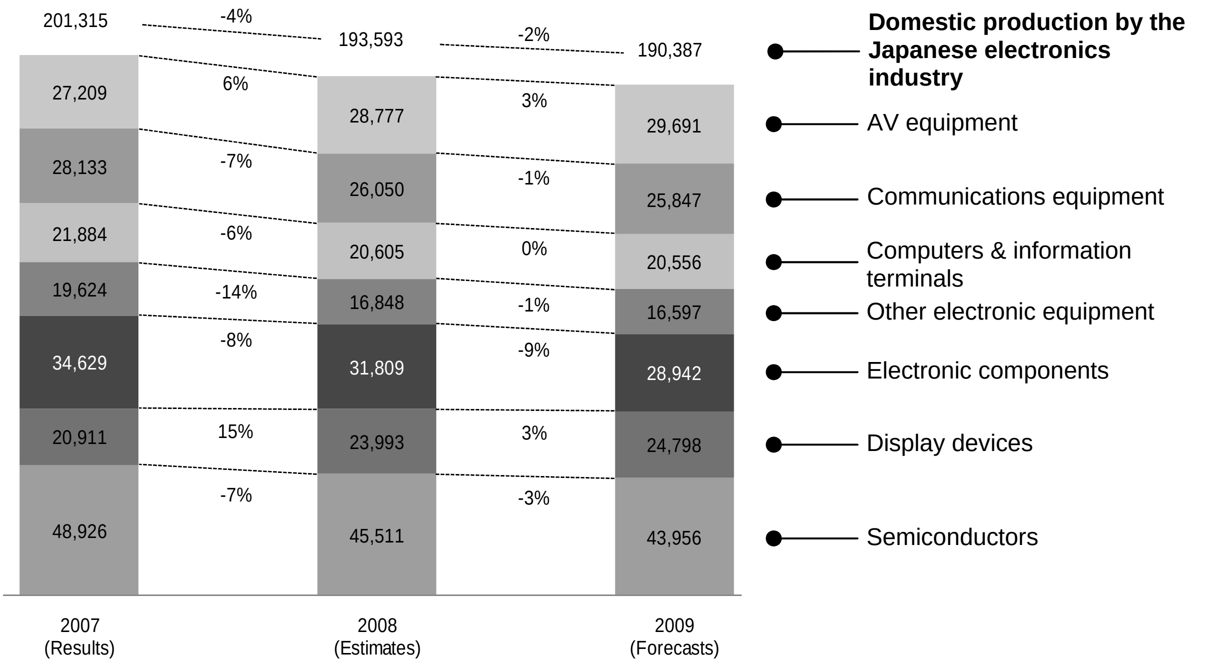
In this environment, domestic production by the electronics and IT industries is seen falling 4% in 2008, to ¥19.4 trillion, marking the first drop below ¥20 trillion in three years. Although double-digit growth is seen in domestic production of display devices, production of mobile phones (down 15%) is being impacted by newly introduced sales regulations, and production is also expected to slip for semiconductors (-7%) and electronic components (-8%), which have until now benefitted from the global diffusion of digital products.

In 2009, domestic production by the industry is forecast to decrease 2%, to ¥19.0 trillion, marking the third straight year of contraction. Domestic production of FPD TVs and BD recorders is seen continuing to expand as the 2011 full-scale shift to digital terrestrial TV broadcasting approaches, but the electronics industry as a whole is expected to suffer from slumping demand amidst the economic slowdown. As price competition intensifies, more Japanese companies will shift production overseas. Slow demand for semiconductors for export is also a concern.

Japan's electronics industry manufactures 44% of its products in Japan, and high domestic production is forecast to continue for products requiring high reliability and quality. These products are expected to include semiconductors (77% of which are produced in Japan), server storage devices (74%), electric measuring instrumentation (74%) and server/storage equipment (69%).

Domestic Production by the Japanese Electronics Industry

(¥100 million; % change YoY)



Domestic Production by the Japanese Electronics Industry

(Units: 100 million yen)

	2007 (Results)	% change YoY	2008 (Estimates)	% change YoY	2009 (Forecasts)	% change YoY
Electronics Industry	201,315	-1%	193,593	-4%	190,387	-2%
Electronic Equipment	96,849	-4%	92,280	-5%	92,691	0%
AV	27,209	-2%	28,777	6%	29,691	3%
TVs (LCD, PDP, rear-projection, CRT)	10,276	9%	10,977	7%	11,460	4%
Image recording/playback (DVD recorder, DVD player, VTR)	849	-16%	1,358	60%	1,847	36%
Imaging (video camera, digital camera)	9,874	-12%	10,034	2%	9,764	-3%
Car AVC (audio, navigation systems)	6,068	3%	6,251	3%	6,470	4%
Audio (portable, home, hearing aids)	141	-44%	157	11%	150	-4%
Communication	28,133	-7%	26,050	-7%	25,847	-1%
Wireless (broadcasting, fixed/mobile communications, wireless applied devices)	22,419	-5%	20,045	-11%	19,842	-1%
Mobile telephones	15,877	-7%	13,465	-15%	13,158	-2%
Telecommunications (telephone, fax, switcher)	5,714	-12%	6,005	5%	6,005	0%
Computers and information terminals	21,884	-6%	20,605	-6%	20,556	0%
Server storage (mainframe, midrange, network storage)	5,415	-3%	5,276	-3%	5,183	-2%
PCs (desktop, notebook)	9,581	-7%	8,752	-9%	8,811	1%
Information terminals	6,889	-6%	6,577	-5%	6,562	0%
Display monitors (LCD, CRT)	845	-3%	840	-1%	794	-5%
Memory devices (magnetic disk/optical disk)	185	-42%	126	-32%	116	-8%
Printers (single/multiple function)	1,635	-18%	1,615	-1%	1,615	0%
Others	19,624	-2%	16,848	-14%	16,597	-1%
Electric measuring instrumentation	5,865	-6%	4,600	-22%	4,731	3%
Electronic applied devices (X-ray, ultrasound, industry-use TVs, office equipment)	13,759	-1%	12,248	-11%	11,866	-3%
Electronic components & devices	104,466	3%	101,313	-3%	97,696	-4%
Electronic components (passive, connecting, transducers, PCBs, others)	34,629	3%	31,809	-8%	28,942	-9%
Display devices (LCDs, PDP modules, CRTs)	20,911	1%	23,993	15%	24,798	3%
Semiconductors	48,926	3%	45,511	-7%	43,956	-3%

Note: Figures are rounded, so the sums of items do not necessarily match the column totals.