

**2013 PRODUCTION FORECASTS FOR THE
GLOBAL ELECTRONICS AND
INFORMATION TECHNOLOGY INDUSTRIES**

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JEITA

JAPAN ELECTRONICS AND INFORMATION TECHNOLOGY INDUSTRIES ASSOCIATION

FOREWORD

In 2012, many countries around the world, including Japan, the United States, China, Russia, France, South Korea and Taiwan, reached a critical juncture, as they held elections to choose new leadership or re-elect their incumbent leader. The outcome of these elections will have global consequences for several years to come. In its October 2012 World Economic Outlook, the IMF lowered its global growth forecast to 3.3%, down 0.2 percentage point from July. Although the revision is slight, global growth slowed from 5.1% in 2010 to 3.8% in 2011 and is anticipated to decelerate further in 2012. A modest pickup of 3.6% is then predicted for 2013. According to the IMF, the outlook for the Japanese economy also remains bleak. Although Japan's economy is forecast to grow by 2.2% in 2012 and 1.2% in 2013, it will continue to face headwinds from the continuing European debt crisis, the slowdown of emerging economies, as well as concerns over the structural problems plaguing the Chinese economy.

According to the annual industries survey conducted by JEITA, production by the global electronics and information technology industries is estimated to have increased 3% in 2012, to ¥210.3 trillion. The forecast for 2013 is a 5% year-on-year increase, to ¥221.7 trillion, owing mainly to demand for electronic components and devices for smartphones and tablets. Nevertheless, despite expectations of a modest recovery in the industries in 2013, the annual production forecast is still slightly below the ¥222.8 trillion recorded in 2008. Production by the electronics industry in Japan is estimated to rise 1% in 2013, to ¥12.1 trillion, which is half of the 1997 level of ¥25.4 trillion, when production reached its peak in terms of scale. However, this will be the first time in three years since 2010 that production in Japan has shown positive growth. Offshore production by Japanese industries is forecast to grow 2% in 2013, to ¥20.8 trillion, outpacing production in Japan to account for 63% of total production by the industries, and accelerating the shift to manufacturing outside Japan. Offshore production of electronic equipment, in particular, is expected to have risen 4 percentage point, from 69% of the total in 2009 to a forecast 73% in 2013.

To help achieve a safe, secure and affluent lifestyle and a low-carbon society by harnessing IT to create a smart society, JEITA pursues a wide range of activities under the theme of enhancing Japan's international competitiveness and creating new business opportunities. For these reasons, JEITA focused this year's survey on the health care and medical fields, where there is potential for further use of IT, and sensors, to support a safe and secure lifestyle and social infrastructure. In addition, as part of our sensor survey, we conducted the "Sensor Global Fact-Finding Survey" with the cooperation of JEITA members and 85 non-members to gain an understanding of actual shipments from 2009 to 2011. According to this survey, shipments have shown positive growth for two straight years, both in terms of volume and value, and have remained firm despite the tough environment.

In 2013 and beyond, JEITA will continue to enhance its activities by reflecting a broad base of comments and opinions in new products and services. We will strive to contribute not only to the growth of the industries, but also to better lifestyles for people everywhere. We will continue to report on our progress in the future with the sincere hope that information from JEITA proves to be a valuable resource.

Tsutomu Handa
President

Japan Electronics and Information Technology Industries Association (JEITA)

PRODUCTION FORECASTS FOR THE GLOBAL ELECTRONICS AND INFORMATION TECHNOLOGY INDUSTRIES

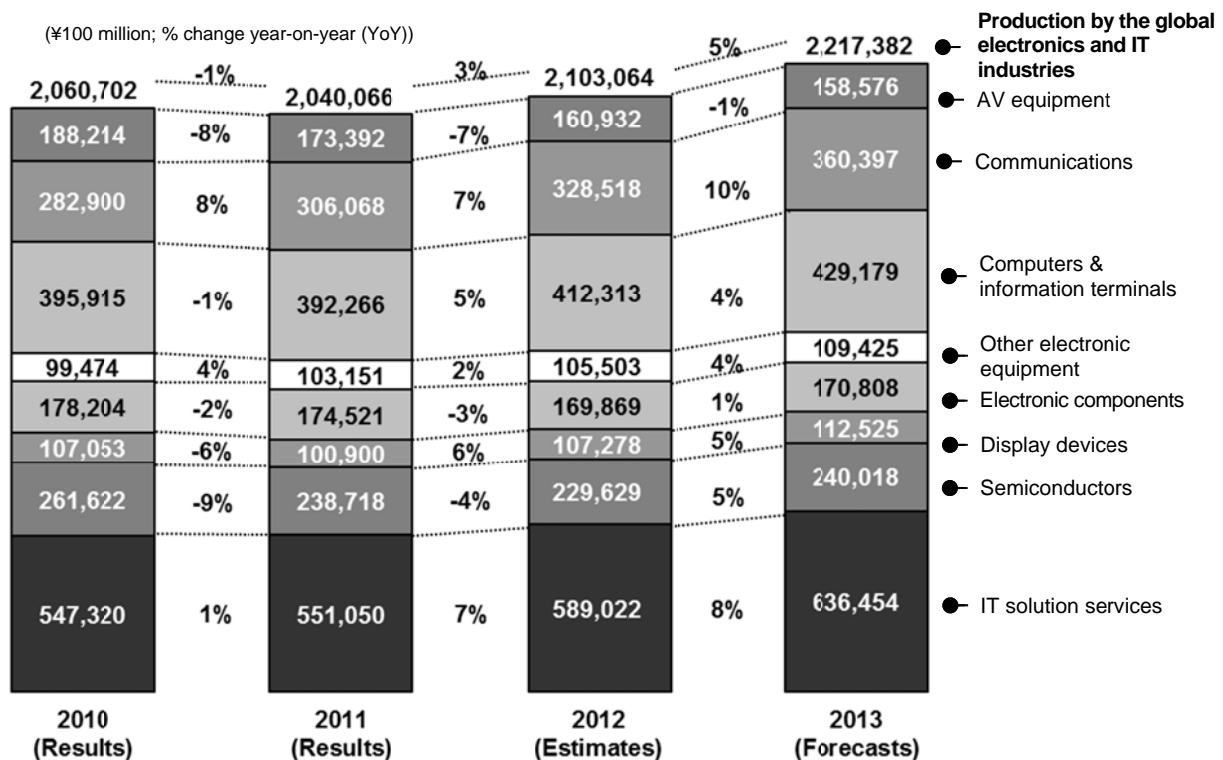
Production by the global electronics and IT industries is expected to have risen 3%, to ¥210.3 trillion in 2012, owing to rapid expansion in the market for smartphones and tablets. In 2013, backed by an expected increase in IT investment in response to the integration of IT into a broad range of industries and new market changes, global production is forecast to grow for a second straight year, rising 5%, to ¥221.7 trillion.

In 2012, the world economy was in danger of recession due to the continuing European debt crisis. The slowdown in exports to Europe caused an oversupply in China, and the economy lost momentum. However, on the upside, the growth of the market for smartphone and tablets accelerated expansion in data traffic volume, and spurred the development of high-speed communication networks in advanced economies. Also, various new online news services and social network services (SNS) became better known and more widely used, and support for such services is also beginning to spread to emerging economies. In this situation, total global production by the electronics and IT industries (total of electronics industry and IT solutions and services) is estimated to climb 3%, to ¥210.3 trillion. Of this total, production by the electronics industry (hardware, including electronic equipment, components and devices) is seen rising 2%, to ¥151.4 trillion, the first increase in two years.

In 2013, the world economy is expected to pick up slightly, buoyed by the recovery of the U.S.

economy and monetary relaxation and fiscal policies in emerging economies, which will offset the deceleration caused by Europe's economic woes. In the electronics and IT industries, developments such as the application of clouds to social infrastructure, progress in technology for analyzing and utilizing large volumes of data instantaneously collected with sensors, improvements in infrastructure for high-speed communication networks and information networks, and the tightening of securities measures will result in the further integration of IT into a wide range of industries, which will, in turn, lead to further industrial integration. As momentum builds for market change, an increase in IT investment can be expected. Bolstered by expansion in the market for electronic equipment, especially communications equipment, and expansion in IT solutions and services, production by the global electronics and IT industries is expected to show a second straight year of growth in 2013, rising 5%. The result will approach the 2008 level of ¥222 trillion and should mark the start of a trend towards recovery.

Production by the Global Electronics and IT Industries



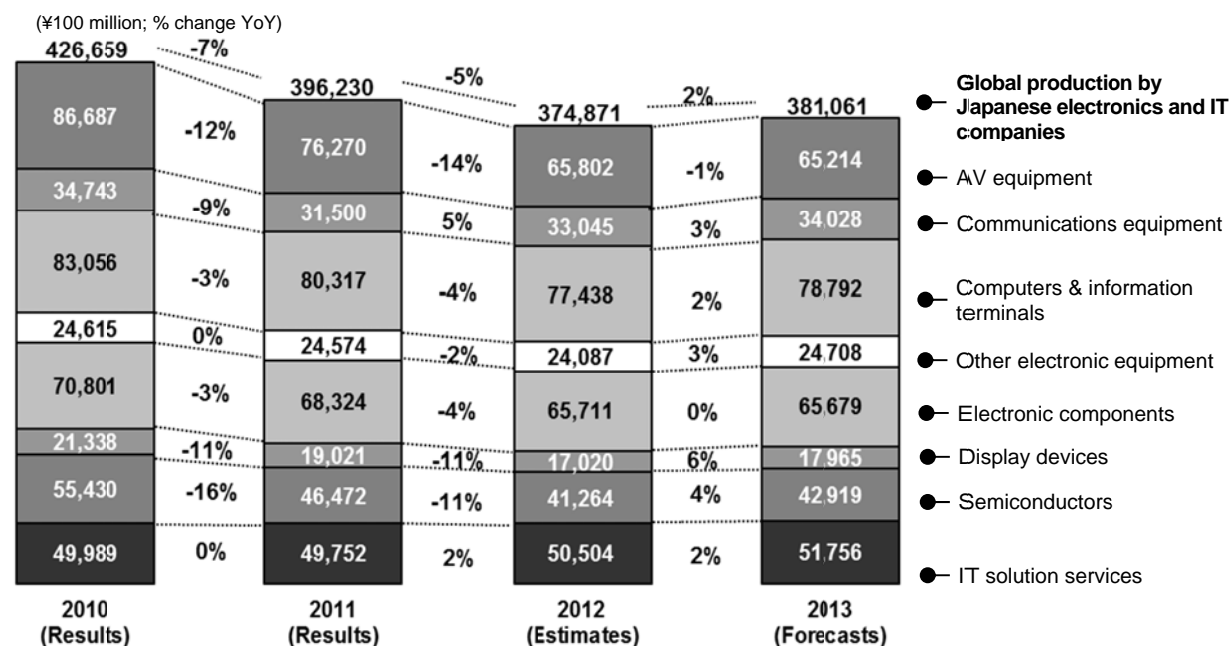
FORECASTS OF GLOBAL PRODUCTION BY JAPANESE COMPANIES

In 2012, global production by Japanese electronics and IT companies (including offshore production) is seen declining for the second straight year, falling 5%, to ¥37.5 trillion. In addition, this production is estimated to account for 18% of the global total, also a slide from 2011. Japanese electronics and IT companies urgently need to provide products and services that meet new needs through the Internet and keep pace with the rapidly changing market. Global production by Japanese electronics and IT companies in 2013 is expected to edge up 2%, to ¥38.1 trillion, reflecting expectation of advances in products incorporating key devices.

Japanese companies faced worsening business results and a loss of competitiveness in 2012, owing mainly to the unprecedented increase in the value of the yen against the US dollar and the euro, and decline in exports and production. Due to the expansion of the market for Internet-enabled smartphones and tablets, cloud services also became widely used among individual users. At the same time, the market environment surrounding conventional products changed dramatically as it became easier to download additional product features via the Internet and this made life difficult for Japanese electronics and IT companies. However, advances are being made in products aimed at further comfort and security, and key devices such as image sensors, flash memory and high-precision displays support core products and are propelling these advances, and this is where the strength of Japanese electronics and IT companies lie. These factors lead to an estimated 5% fall in production by Japanese electronics and IT companies (including offshore production), to ¥37.5 trillion. Of this total, electronics production is seen decreasing by 6%, to ¥32.4 trillion.

In the future, moves to enhance affinity with networks compatible with cloud computing and to increase processing speeds, and trends towards the integration into new products harnessing the advantages and features of conventional products and towards product differentiation are forecast in the individual user field. Meanwhile, momentum is forecast to grow for developments such as big data processing and utilization, the tightening of security, and the establishment of business continuity plans (BCP) in the wake of the earthquake in the industry field. At the same time, in the field of semiconductors and electronic components to support new products, further technical innovation can be expected. However, Japanese companies are going through a transition period and struggling in face of a strong yen and increasing competition, in spite of efforts to increase overseas direct investment and strengthen global production systems, and the share of the global electronics and IT markets held by Japanese companies is seen dropping to 17%.

Global Production by Japanese Electronics and IT Companies



FORECASTS OF DOMESTIC PRODUCTION BY THE JAPANESE ELECTRONICS INDUSTRY

Domestic production by the Japanese electronics industry in 2012 is expected to decline for the second straight year, dropping 8% from the 2011 result, to ¥12.4 trillion. The slump in exports caused by the continuing high yen and changes to the product mix in Japan impacted on domestic production. In 2013, domestic production by the industries is predicted to show positive growth for the first time in three years, climbing 1%, to ¥12.1 trillion, but the operating environment for Japanese manufacturers is expected to remain severe.

The Japanese economy continued to face hardships in 2012, despite expectations of reconstruction-related demand. At the beginning of 2012, the electronics industry seemed to be staging a gradual recovery from the effects of the earthquake and the flooding in Thailand the previous year, as demand for automobile picked up thanks to the subsidy program for eco-friendly car purchases and shipments of digital cameras and personal computers remained brisk. However, the industry struggled in electronics equipment, including larger-than-expected declines in flat-screen TVs and recorders, and was also hit by decline in exports of electronic components and devices caused by the continuing high yen and increased competition. Domestic production by the Japanese electronics industry in 2012 is expected to have dropped 8% year on year, somehow staying above the ¥12 trillion mark but falling below the 2011 level, to around 60% of the ¥20 trillion recorded in 2007. The result would be a big disappointment, marking the second straight year of decline.

Continuing severity is forecast for production in Japan in 2013. If the value of the yen remains high against major foreign currencies, more production will be moved to overseas bases. The industries

stand at a crossroads where policies that encourage domestic manufacturing will be required. Expectations are pinned on active investment in IT and electronics in the medical and health care fields in anticipation of an aging society and an increase in IT investment for business continuity and tightening of security. For these reasons, despite the numerous negative factors the industries face in domestic production, a recovery is foreseen in demand for display devices (+5%) backed by growing demand for smartphones and tablets, and for electronic medical equipment (+5%) in line with expanding needs for healthcare-related products. On the whole, domestic production by the industries is forecast to rise 1% from the 2012 level and comprise 37% of total global production by Japanese companies. In particular, domestic production should remain strong for products offering high reliability and quality, such as display devices (75% manufactured in Japan), electric measuring instrumentation (74%), server/storage equipment (72%), electronic medical equipment (72%) and semiconductors (72%). However, domestic production's share of total production is trending downward.

Domestic Production by the Japanese Electronics Industry

