

Sales to External Customers by Geographic Area

The following table shows Sony's consolidated sales to external customers in each of its major markets for the periods indicated.

	Fiscal year ended March 31		
	2017	2018	2019
	(Yen in millions)		
Japan	2,392,790	2,625,619	2,591,784
United States	1,673,768	1,835,705	1,982,135
Europe	1,634,683	1,841,457	1,862,166
China	557,995	674,718	770,416
Asia-Pacific	866,712	1,024,179	912,193
Other Areas	477,302	542,304	546,993
Total	<u>7,603,250</u>	<u>8,543,982</u>	<u>8,665,687</u>

Sources of Supply

Sony procures raw materials, parts and components used in the production of its products on a global basis on the most favorable terms that it can achieve. These items are purchased from various suppliers around the world. Sony has a general policy of maintaining multiple suppliers for important parts and components and, in the fiscal year ended March 31, 2019, Sony continued to optimize the number of its suppliers to achieve efficiencies and to minimize procurement risk when possible.

When raw materials, parts and components become scarce, the cost of production rises. For example, LCD panels and memory devices, which are used in multiple applications, can influence Sony's performance when the cost of such parts and components fluctuates substantially. With regard to raw materials, the market price of copper may fluctuate and impact the cost of the parts and components that utilize copper, such as printed circuit boards and power cables. The price of resin and sheet steel, which is widely used in mechanical parts and components, may also fluctuate and impact the cost of those parts and components.

After-Sales Service

Sony provides repair and servicing functions in the areas where its electronics products are sold. Sony provides these services through its own online support network, call centers, service centers, factories, authorized independent service centers, authorized servicing dealers and subsidiaries.

In line with industry practices of the electronics businesses, almost all of Sony's consumer-use products that are sold in Japan carry a warranty, generally for a period of one year from the date of purchase, covering repairs, free of charge, in the case of a malfunction in the course of ordinary use of the product. Warranties outside of Japan generally provide coverage for various periods of time depending on the product and the area in which it is marketed. In the case of broadcast- and professional-use products, Sony maintains support contracts with customers in addition to warranties.

To further help ensure customer satisfaction, Sony maintains customer information centers in its principal markets and web support information for all markets.

Patents and Licenses

Sony has a number of Japanese and foreign patents relating to its products. Sony is licensed to use a number of patents owned by others, covering a wide range of products. Certain of these licenses are important to Sony's business. Sony products that employ DVD player functionality, including PlayStation®4 ("PS4") hardware, are substantially dependent upon patents that relate to technologies specified in the DVD specifications and are licensed from Dolby Laboratories Licensing Corporation. Sony products that employ Blu-ray Disc™ player functionality and DVD player functionality, including PS4 hardware, are substantially dependent upon patents that relate to technologies specified in the Blu-ray Disc™ specifications and are licensed by MPEG LA LLC and One-Blue, LLC, in addition to the patents that relate to technologies specified in the DVD specifications, as described above. Sony considers its overall license position beneficial to its operations.