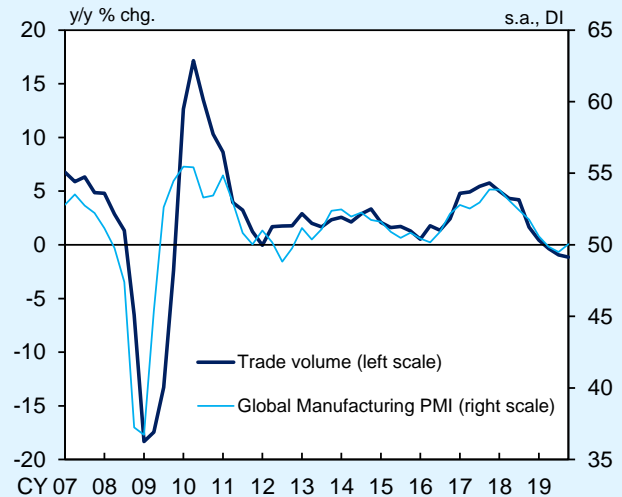


**(Box 2) Developments in and Outlook for Exports by Type of Goods**

The Global Manufacturing PMI, which is highly correlated with the world trade volume, has stopped declining and currently is heading toward a pick-up (Chart B2-1). Given these developments in manufacturers' sentiment, there has been a rise in the likelihood that the year-on-year rate of change in world trade volume, which continued to decline from the second half of 2018, eventually will stop falling and head toward a pick-up. Although the recovery in global trade activity is expected to have positive effects on Japan's exports on the whole, some differences are likely to remain in the export environment for different types of goods. Specifically, although IT-related exports are expected to follow an increasing trend, exports of automobile-related goods and capital goods, in which Japan has a comparative advantage, will likely remain somewhat weak for the time being. This box summarizes the current situation of and outlook for Japan's exports by type of goods.

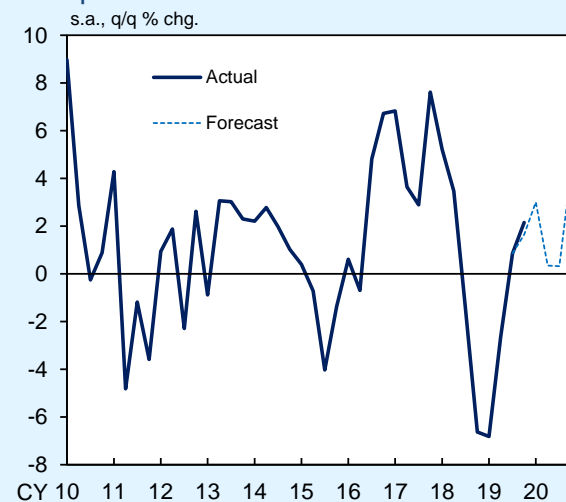
Japan's IT-related exports bottomed out in mid-2019 on the back of the global cycle for IT-related goods shifting toward a phase of improvement, and recently have turned to an uptrend, mainly led by parts for smartphones and data centers. The WSTS world semiconductor shipments started to increase in the second half of last year, and shipments of a wide range of relevant items such as memory and logic chips are likely to continue increasing in 2020 (Chart B2-2). These developments mainly reflect the fact that investment in parts for data centers, which fell temporarily in the first half of 2019, has been

**Chart B2-1: World Trade Volume and Manufacturing PMI**



Sources: CPB Netherlands Bureau for Economic Policy Analysis; IHS Markit (© and database right IHS Markit Ltd 2020. All rights reserved.).  
 Notes: 1. Figures for the trade volume are those for real imports. The figure for 2019/Q4 is the percentage change from the October-December 2018 average to October 2019.  
 2. Figures for the Global Manufacturing PMI are the "J.P. Morgan Global Manufacturing PMI."

**Chart B2-2: World Semiconductor Shipments**

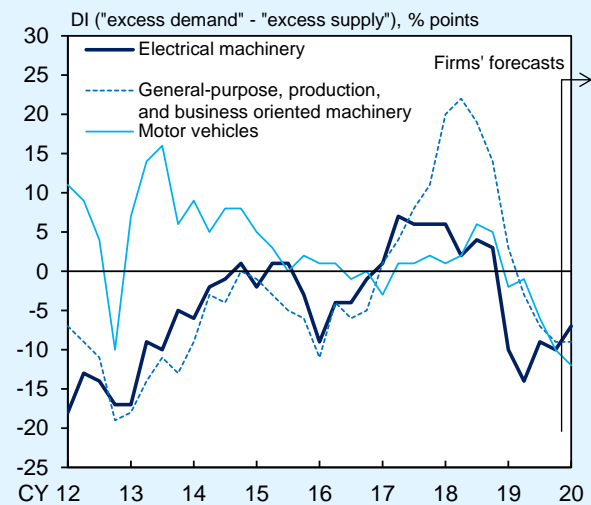


Notes: 1. Based on staff calculations using the WSTS data.  
 2. The actual figure for 2019/Q4 is the October-November average.

picking up on the back of rising demand for cloud services and expanding e-commerce. In addition, shipments of high-value-added parts related to smartphones are expected to increase as the introduction of 5G-compatible models is likely to expand gradually from 2020 onward. Under these circumstances, the DI for overseas supply and demand conditions for Japanese "electrical machinery" (large enterprises) recently has been picking up moderately, unlike the corresponding DIs for "motor vehicles" and for "general-purpose, production, and business oriented machinery" (Chart B2-3). Taking into account these developments, IT-related exports are expected to maintain their firm increasing trend, mainly led by parts related to 5G communication and data centers.

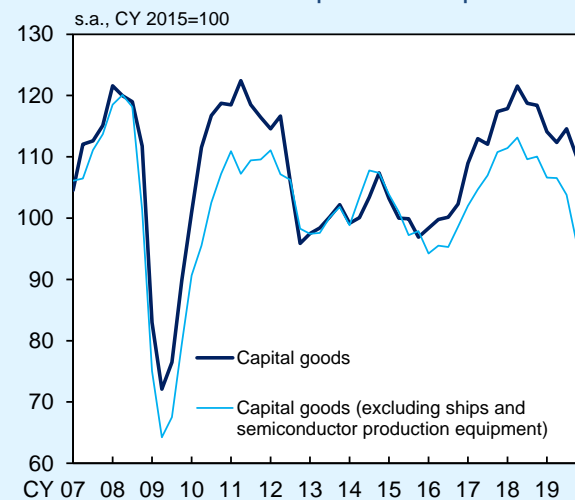
Next, exports of capital goods can be assessed as remaining somewhat weak when excluding an increase in semiconductor production equipment and the temporary contribution of ships that show large fluctuations (Chart B2-4). Such weak overseas demand for Japanese capital goods is attributable to the continued slowdown in business fixed investment observed mainly in the manufacturing sector in China as well as the NIEs and the ASEAN economies. In particular, looking at machine tool orders from overseas, a leading indicator of Japan's capital goods exports, the downtrend in such overseas demand has not come to a halt yet, which mainly reflects (1) weak global automobile production and (2) the postponement of business fixed investment around the world due to growing uncertainties (Chart B2-5). As for the outlook based on these developments, it is likely to still take some time for capital goods exports to start increasing, even

**Chart B2-3: Overseas Demand and Supply Conditions**



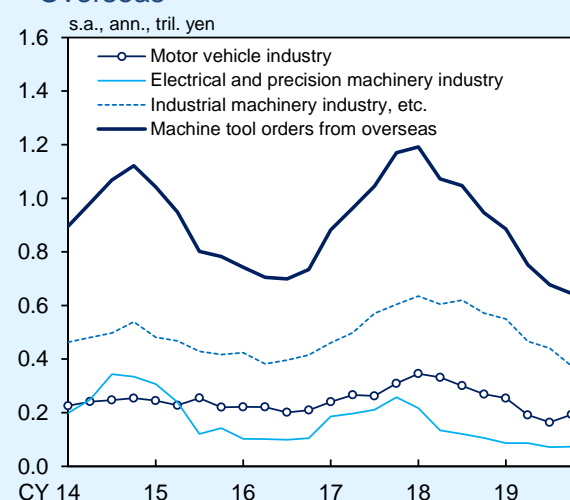
Source: Bank of Japan.  
Note: Based on the *Tankan*. Large enterprises.

**Chart B2-4: Real Exports of Capital Goods**



Sources: Bank of Japan; Ministry of Finance.  
Note: Based on staff calculations. Figures for 2019/Q4 are October-November averages.

**Chart B2-5: Machine Tool Orders from Overseas**

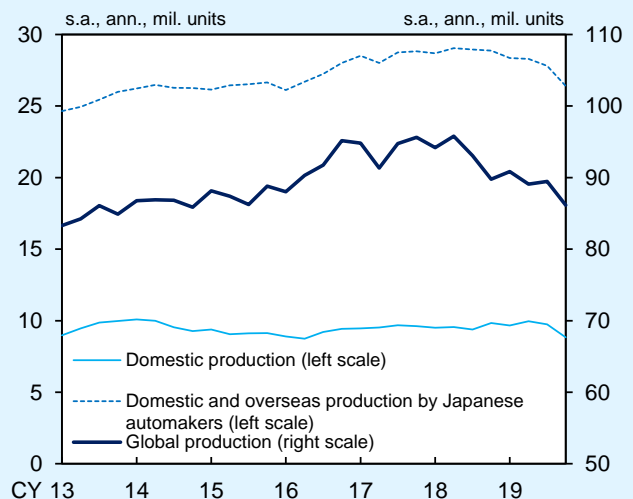


Source: Japan Machine Tool Builders' Association.  
Notes: 1. Figures for "industrial machinery industry, etc." include orders from the primary metals industry and trading companies.  
2. Figures for 2019/Q4 are October-November averages.

though they are expected to be underpinned by a rise in semiconductor production equipment for the time being. However, from a somewhat longer-term perspective, it is likely that the trade volume in capital goods gradually will head to a recovery and Japan's capital goods exports also will return to a moderate increasing trend if protectionist moves are prevented from becoming more intensified and global uncertainties turn to a declining trend.

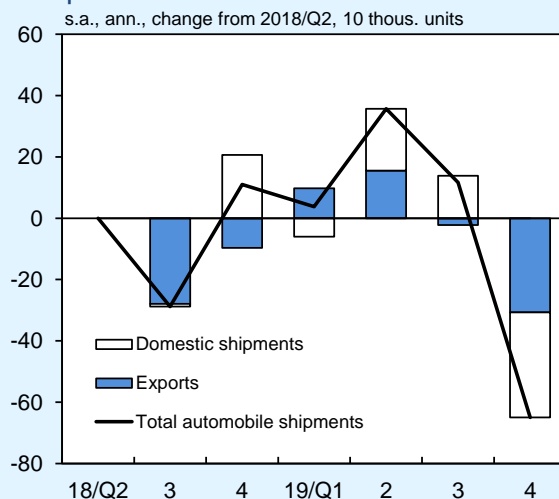
Meanwhile, Japan's automobile-related exports recently have seen a relatively large decline, partly reflecting the shift of production sites to overseas amid the continued weakness in global automobile sales. Looking at global automobile production numbers, a downtrend has been evident since 2018, reflecting (1) a decline in corporate demand due to a slowdown in business fixed investment, (2) the tightening of financial conditions in countries such as China and India, and (3) the stricter environmental regulations in Europe and China (Chart B2-6). Japan's exports of automobiles remained on an uptrend until around mid-2019 despite the continued weakness in global automobile sales. Thus, the reactionary decline since the second half of last year has been large. In addition, since supply constraints, such as supply chain disruptions caused by natural disasters, have occurred at the same time, domestic automobile production recently has seen a clear decline not only for exports but also for domestic sales (Chart B2-7). As for the outlook, automobile-related exports will likely remain somewhat weak for the time being as global automobile sales also are projected to remain weak, although a dissipation of the impact of the shift of production sites to overseas and a

**Chart B2-6: Automobile Production**



Source: MarkLines Co., Ltd.  
 Note: Based on automobile production in 37 countries and regions. Figures for 2019/Q4 are October-November averages.

**Chart B2-7: Domestic Shipments and Exports of Automobiles**



Notes: 1. Figures for 2019/Q4 are October-November averages.  
 2. Based on staff calculations using the data compiled by the Japan Automobile Manufacturers Association, Inc.

removal of supply constraints are expected to contribute to an increase in such exports. Thereafter, however, global automobile sales are expected to recover moderately, underpinned by a pick-up in corporate demand following a recovery in business fixed investment as well as by policy responses in emerging economies, with downward pressure stemming from stricter environmental regulations waning. Under these circumstances, automobile-related exports also are likely to gradually head toward a recovery.