

**(Box 1) Recovery in the World Trade Volume and Developments in Japan's Exports**

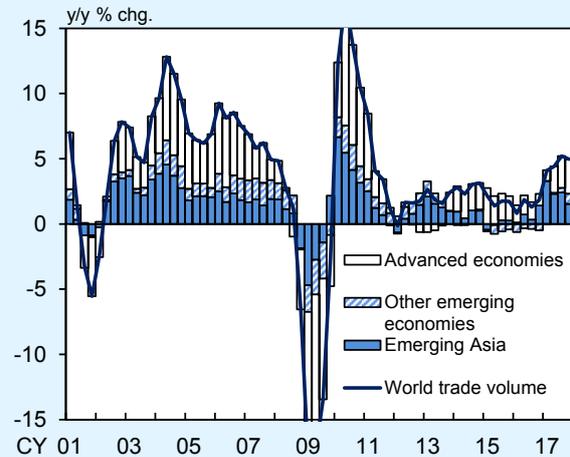
The world trade volume has been recovering firmly since the second half of 2016. It had tended to grow at a slower pace than world GDP -- the so-called slow trade -- since 2011, and the reasons behind this subdued growth have been widely discussed.<sup>29</sup> Nevertheless, world trade volume growth has recovered lately to the level that exceeds world GDP growth (Chart 12).

Although it is still premature to judge only from these recent developments that factors that brought about slow trade have dissipated, it is certain that the recent firm growth in the world trade volume is attributable to the recovery in emerging economies. Looking at developments in the world trade volume -- calculated by adding up real imports in each country -- by region, trade volume in "Emerging Asia" has been increasing significantly recently, after being relatively weak from 2015 to 2016 (Chart B1-1).<sup>30</sup>

Under such circumstances, Japan's exports also have been increasing, mainly led by those of capital goods and IT-related goods to "China" and "NIEs, ASEAN, etc." (Charts B1-2 and B1-3).

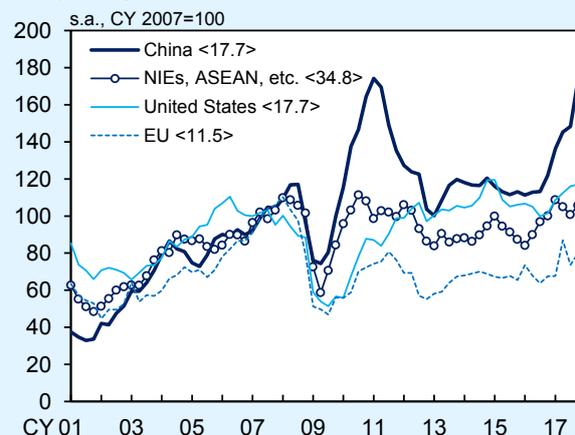
Looking at developments in Japan's capital goods exports to China, unlike around 2010, when the

**Chart B1-1: World Trade Volume by Region**



Source: CPB Netherlands Bureau for Economic Policy Analysis.  
 Notes: 1. Figures for the trade volume are those for real imports. Figures for 2017/Q4 are those for October.  
 2. Emerging Asia consists of China, NIEs, ASEAN4, India, etc.

**Chart B1-2: Real Exports of Capital Goods by Region**



Sources: Bank of Japan; Ministry of Finance.  
 Note: Based on staff calculations. Figures in angular brackets show the share of each country or region in Japan's total exports of capital goods in 2016. Figures for 2017/Q4 are October-November averages.

<sup>29</sup> See the Bank's research paper "Slow Trade: Structural and Cyclical Factors in Global Trade Slowdown" released in December 2016.

<sup>30</sup> "Emerging Asia" includes China, the NIEs, the ASEAN4, and India.

pace of increase in exports of construction and mining machinery accelerated, reflecting a large-scale fiscal stimulus provided by the Chinese government after the global financial crisis, exports of semiconductor production equipment and industrial robots have been increasing significantly recently. Sound developments in Japan's capital goods exports are mainly brought about by increases in demand for electronic parts for smartphones and data centers and in labor-saving investment that reflects a rise in personnel expenses in China.<sup>31</sup>

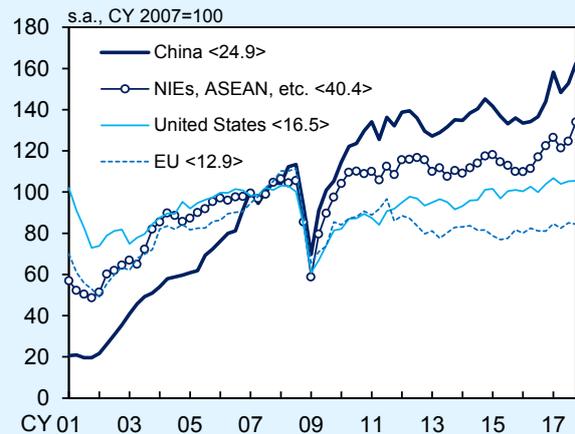
Developments in world semiconductor shipments, which have a high correlation with IT-related exports, show that shipments to Asia have been exceeding significantly the past trend and the forecasts made by the WSTS Inc. in spring 2017 (Chart B1-4).<sup>32</sup>

Taking account of various orders statistics and forecasts made within the industry, exports of capital goods and IT-related goods are likely to increase firmly. Machinery orders from overseas -- a leading indicator of Japan's capital goods exports -- have been on an uptrend (Chart B1-5). Specifically, electronic and communication equipment, which includes semiconductor production equipment, and industrial machinery have been firm; metal cutting machines also have been increasing. The forecasts for semiconductor shipments made by the WSTS Inc. in autumn

<sup>31</sup> In China, under the government's "Made in China 2025" strategy and other initiatives, investment related to factory automation and in semiconductor production equipment has been undertaken proactively.

<sup>32</sup> World semiconductor shipments are based on the *World Semiconductor Trade Statistics*.

**Chart B1-3: Real Exports of IT-Related Goods by Region**



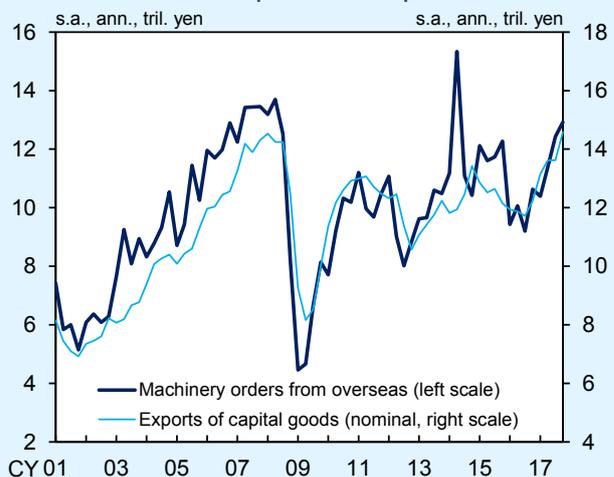
Sources: Bank of Japan; Ministry of Finance.  
 Note: Based on staff calculations. Figures in angular brackets show the share of each country or region in Japan's total exports of IT-related goods in 2016. Figures for 2017/Q4 are October-November averages.

**Chart B1-4: Semiconductor Shipments to Asia**



Source: WSTS Inc.  
 Notes: 1. Figures are based on staff calculations using the "World Semiconductor Trade Statistics."  
 2. Asia consists of countries in the Asia Pacific region other than Japan.  
 3. The figure for semiconductor shipments to Asia for 2017/Q4 is the October-November average.

**Chart B1-5: Machinery Orders from Overseas and Exports of Capital Goods**



Sources: Ministry of Finance; Cabinet Office.  
 Note: Figures for 2017/Q4 are October-November averages.

2017 indicate that the shipments are expected to register a significant rise in 2017 and also a firm increase in 2018 (Chart B1-4).