

World Economic Trends I

<The 2017 Spring Report>

- Globalization, and Economic Growth and Employment -

July 2017

Cabinet Office
Government of Japan

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About "The Trend of the World Economy"

In place of the White Paper on the World Economy (Annual Report on the World Economy), published on an annual basis from 1958, the semi-annual report has been issued since 2002. This is the 31st issue.

Chapter 1 Globalization, and Economic Growth and Employment

(Globalization and extended GVC)

- China and other emerging economies are assuming greater prominence in world trade. While most of the developed economies see their shares declining, Germany has lost only a smaller portion of its share, a result achieved mainly through its success in expanding trade with EU countries (Figure 1).
- German electrical equipment sector is more closely connected with overseas markets than US electrical equipment sector both in procurement of components and sale of products (Figure 2).
- The rise of emerging economies helps extend and develop global value chains (GVC). Between 2000 and 2014, three sectors—machinery equipment, electrical equipment, and computer electronics—saw the share of imports rising among intermediate goods and services in most countries (Figure 3).

Figure 1 Share of selected counties in global exports

(%)	1995	2000	05	11	15	Change between '95 & '15 (% points)
U.S.	13.4	14.2	10.6	10.0	9.3	▲ 4.1
Germany	9.5	7.5	8.5	7.5	8.2	▲ 1.3
Japan	8.4	7.2	5.8	4.7	3.8	▲ 4.6
China	2.5	3.8	7.0	10.3	14.1	11.6

(Note) Adapted from OECD.Stat. For 2015, adapted from International Trade Centre.

Figure 2 GVC for electrical equipment sector

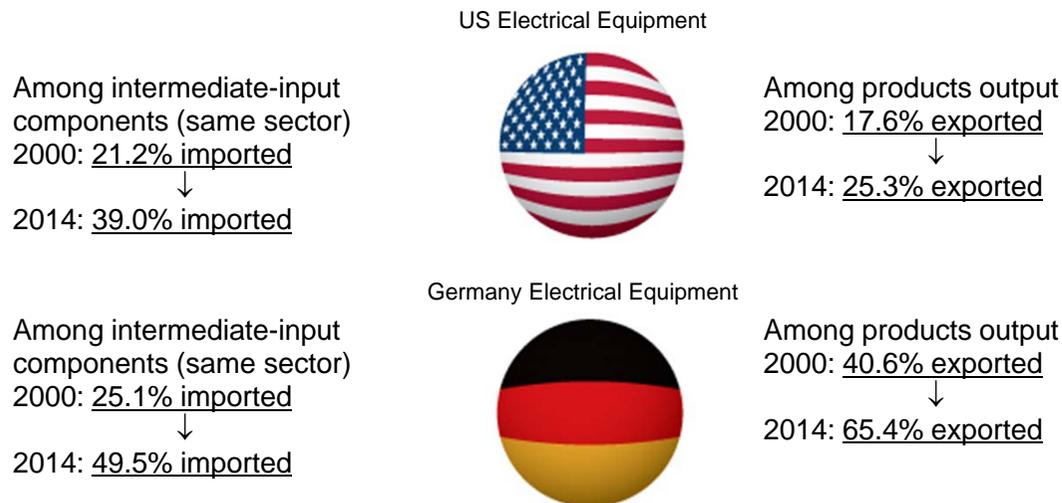
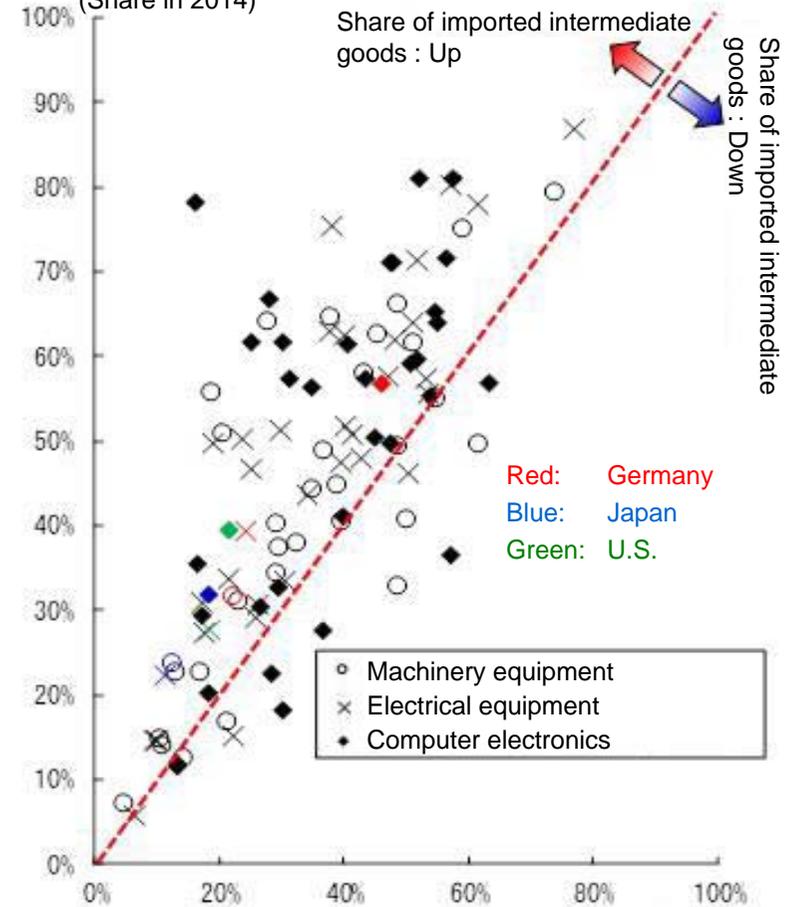


Fig 3. Shares of imported intermediate goods & services in developed and emerging economies by sector (2000 & 2014) (Share in 2014)



(Note) Adapted from World Input-Output Database. (Share in 2000)

(Comparison between US & Germany in auto industry)

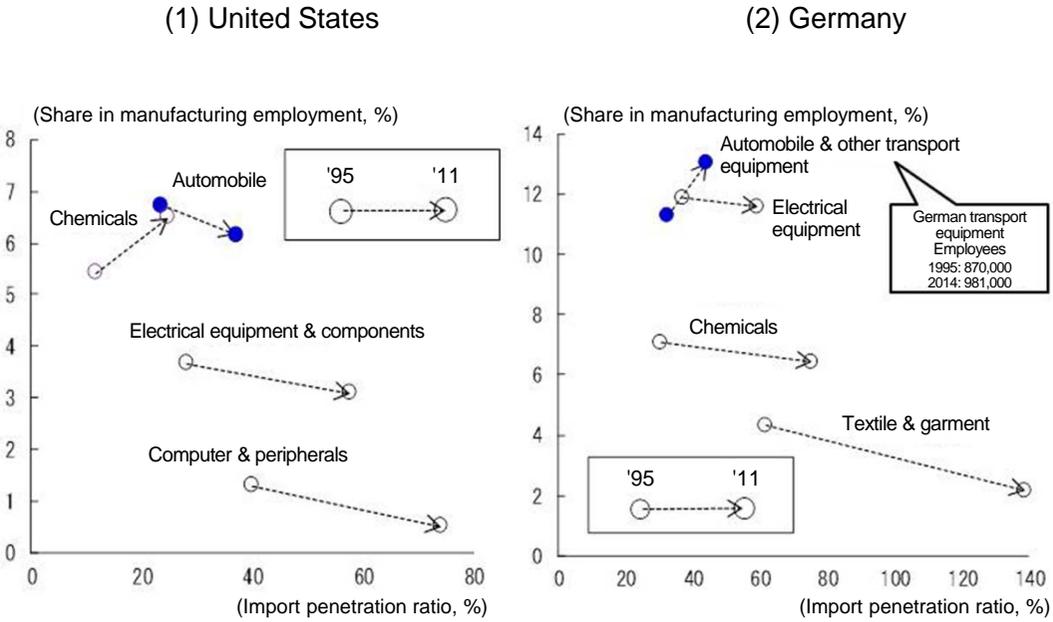
- ❑ Between 2000 and 2014, import penetration ratios rose in manufacturing sectors.
- ❑ In auto industry:
 - In US, its share in manufacturing employment shrunk. (Figure 4 (1)). Value added per employee remained almost unchanged (Figure 5 (1));
 - In Germany, its share in manufacturing employment grew (Figure 4 (2)). Value added per employee remained on an upward trend (Figure 5 (2)).

[Import penetration ratio]

Indicates to what degree a domestic market is penetrated by imported goods. Here, regardless of whether goods are final or intermediate ones, the ratio of a sector in each year is calculated using the formula below:

$$[\text{Import penetration ratio}] = [\text{Imports}] / ([\text{Outputs}] + [\text{Imports}] - [\text{Exports}])$$

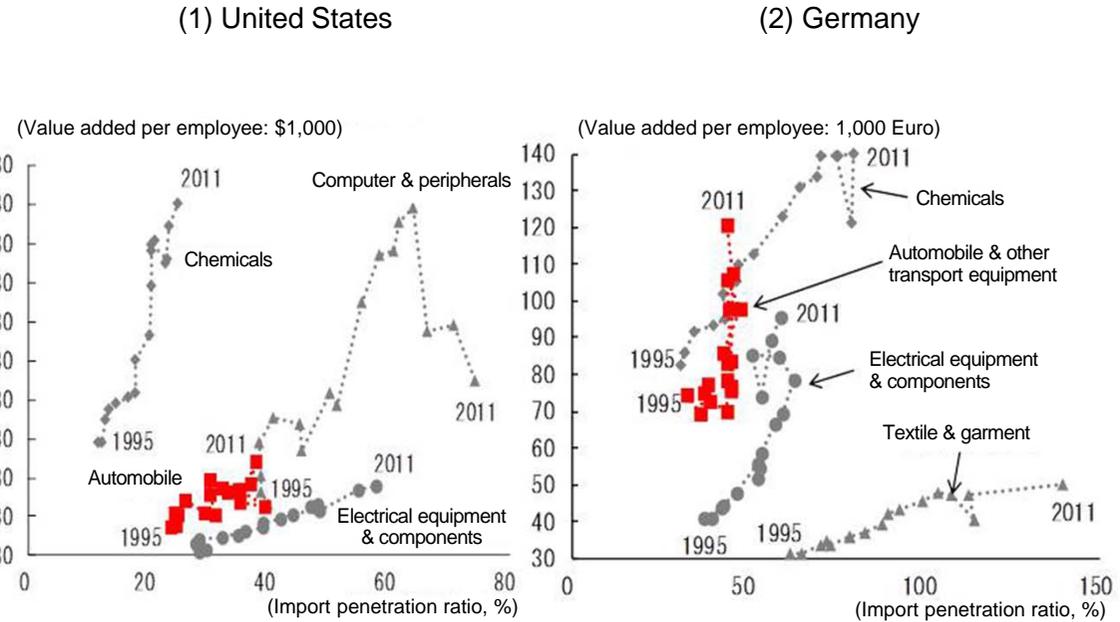
Figure 4 Manufacturing sectors: import penetration ratios & shares in employment



(Note) Employment share in manufacturing and import penetration ratio adapted from NBER-CES Manufacturing Industry Database and OECD.stat, respectively.

(Note) Employment share in manufacturing and import penetration ratio adapted from EU-Krems database and OECD.stat, respectively.

Figure 5 Manufacturing sectors: import penetration ratios & value added per head



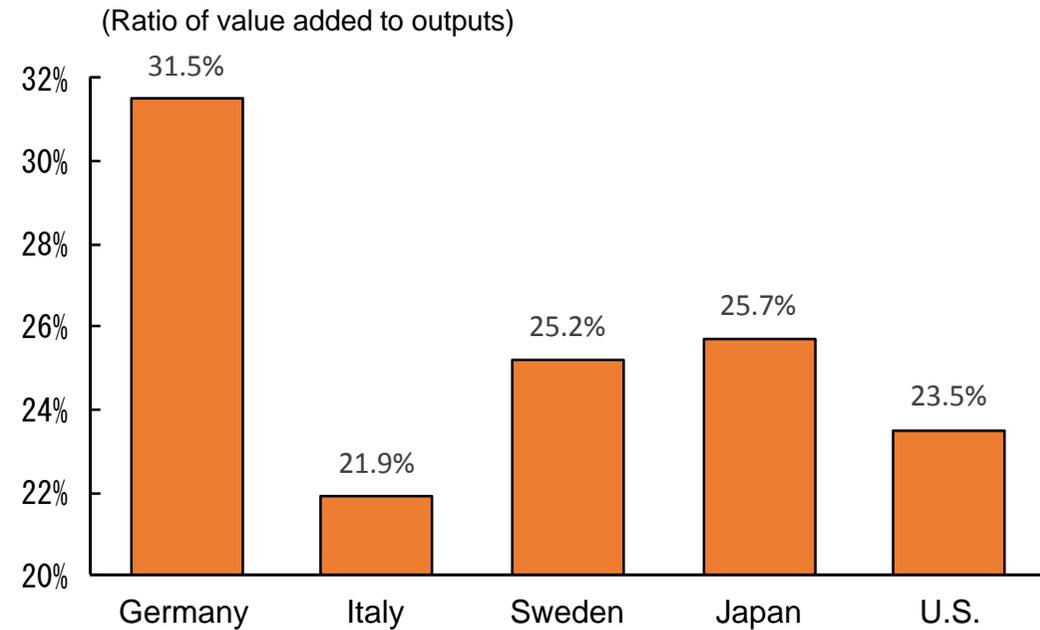
(Note) Value added per head and import penetration ratio adapted from NBER-CES Manufacturing Industry Database and OECD.stat, respectively.

(Note) Value added per head and import penetration ratio adapted from EU-Krems database and OECD.stat, respectively.

(Analysis focusing on auto industry)

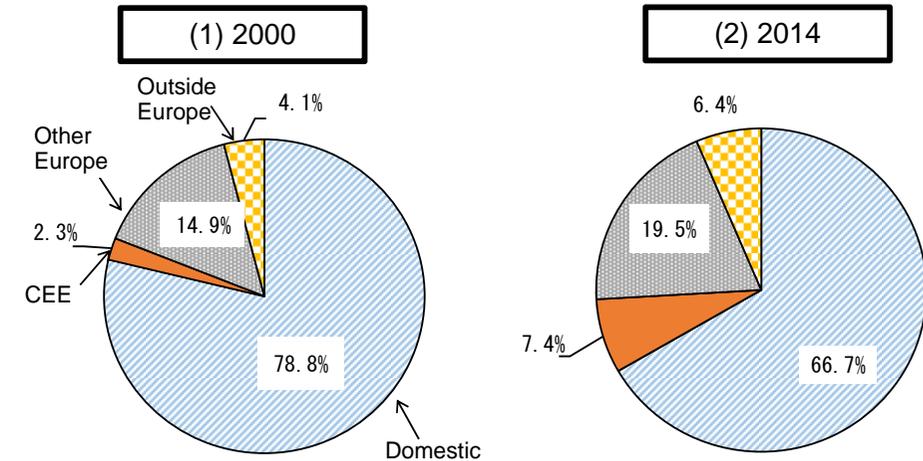
- German auto industry produces greater value added (ratio of value added to total outputs), indicating higher efficiency and profitability (Figure 6).
- This is due to relocation of production sites to Central & Eastern Europe (CEE). In the German transport equipment sector, about 79% of intermediate-input goods and services were produced domestically in 2000 while their share fell to 67% in 2014, with an increased share of those from CEE (Figure 7). In Italy, the transport equipment sector still procures intermediate inputs mainly from domestic suppliers, with little change seen in the structure (Figure 8).
- German car makers focus on production of higher-end, higher-quality models domestically, while having made aggressive direct investments in CEE, a source of their strengths.

Figure 6 Value added ratio of transport equipment sector
(Comparison between 5 countries, 2014)



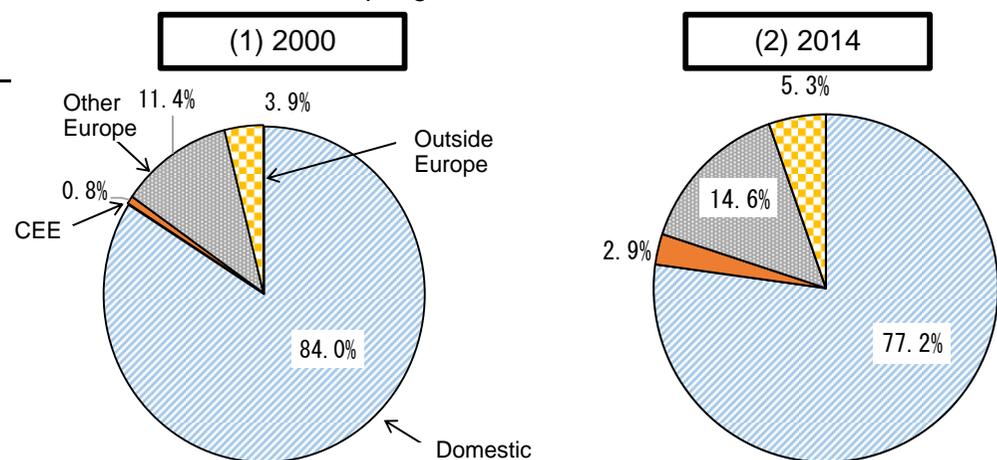
(Note) 1. Adapted from World Input-Output Database.
2. On a basic price basis.

Figure 7 German transport equipment sector: Changes in production locations of intermediate-input goods & services



(Note) Adapted from World Input-Output Database.

Figure 8 Italian transport equipment sector: Changes in production locations of intermediate-input goods & services



(Note) Adapted from World Input-Output Database.

(Servicification of manufacturing)

- ❑ "Servicification of manufacturing", meaning manufacturers purchase, produce, and/or sell more services, is a key to the study of the future of manufacturing (Figure 9).
For instance, a major UK company finds its civil aircraft section earns 52% of its revenue from after-sale services.
- ❑ On the purchase side, comparing the compositions of different services as inputs in the auto industry between Sweden and the US, two economies with advanced servicification, you find Swedish car makers have a greater ratio of knowledge-intensive services, including information- and technology-related ones, in their inputs (Figure 10). For manufacturers, inputting knowledge-intensive services is a critical factor for producing more value added.
- ❑ As part of their effort to improve efficiency, Swedish car makers import more service (Figure 11).

Figure 9 What is servicification of manufacturing?

- Services purchased
- Wholesale & retail services.
 - Knowledge-intensive services etc. are purchased as intermediate inputs.



Services produced



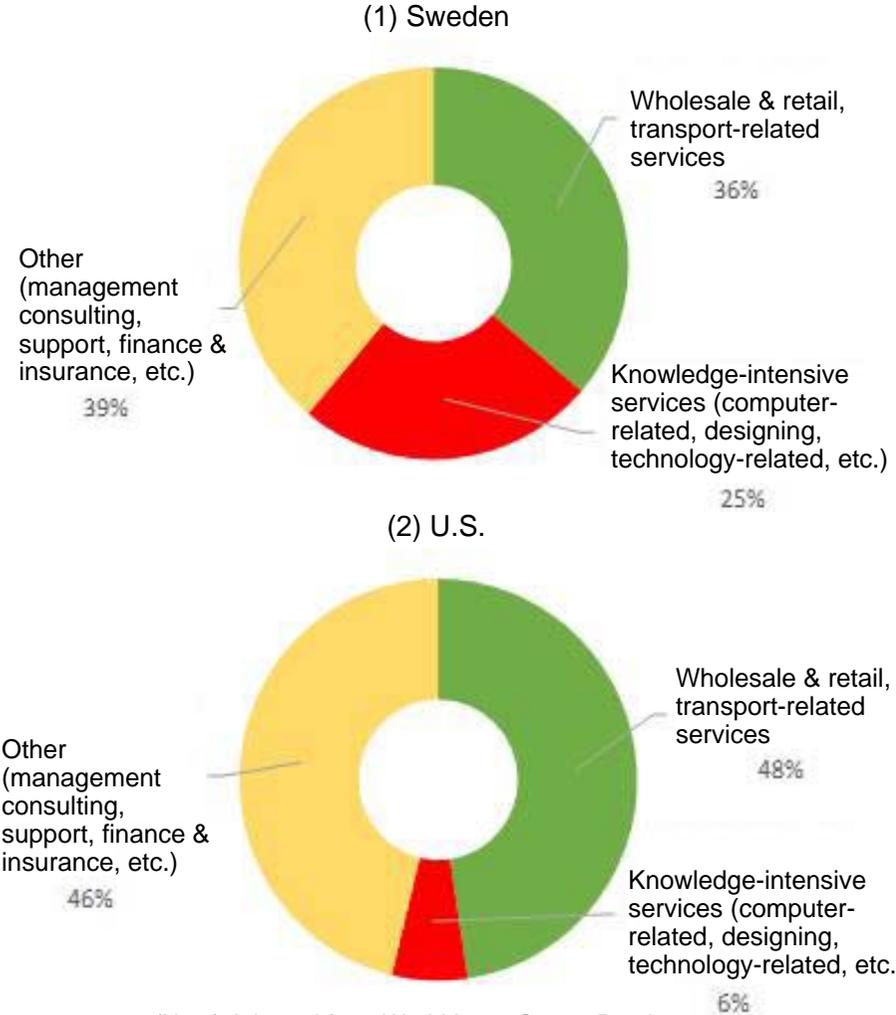
[Manufacturer]



Services sold

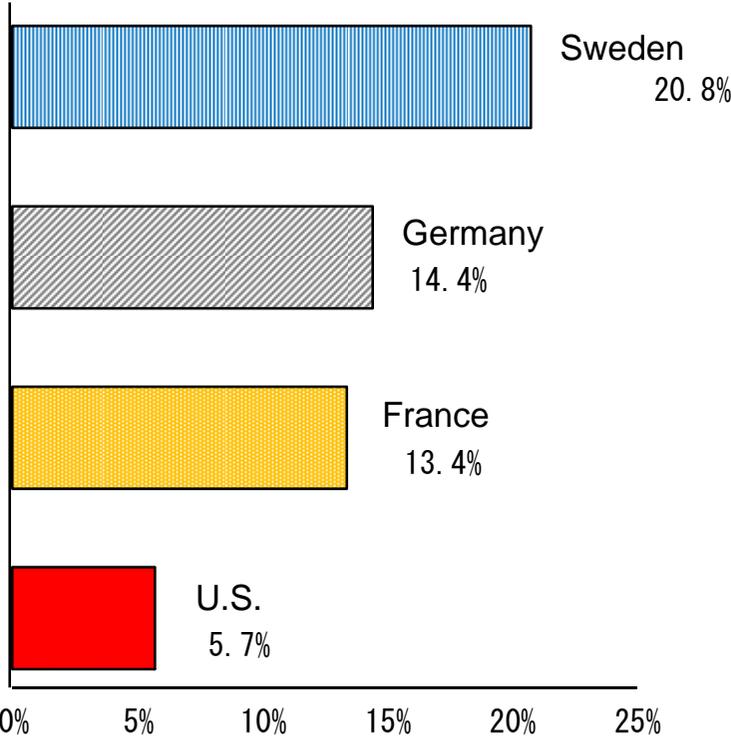
- After-sale services, such as maintenance.
- R&D services etc. are produce for sale.

Figure 10 Composition ratio of service inputs in auto industry



(Note) Adapted from World Input-Output Database.

Figure 11 Dependence on imported service inputs (Auto industry, 2014)



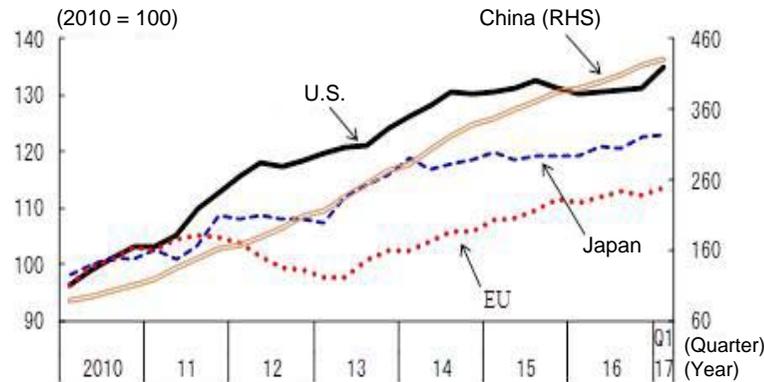
(Note) Adapted from World Input-Output Database.

Chapter 2 Economic Trends and Structural Changes in Major Regions

(The world economy is recovering moderately: Recent improvements are observed in the corporate sector.)

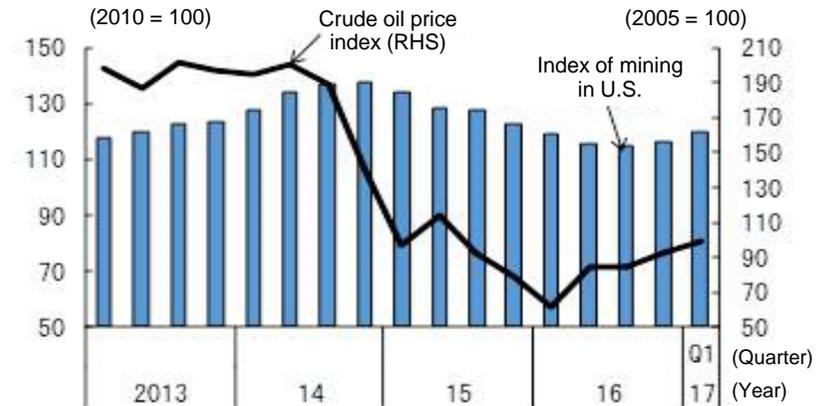
- ❑ The world economy is recovering moderately. In the first half last year, despite solid personal consumption, weaker movements spread in the corporate sector in developed economies, before the slackness began to disappear around autumn. Since early 2017, production and exports have been growing remarkably. The recovery is spilling over into capital spending (Figure 12).
- ❑ Behind the recovery of the corporate sector lie (1) recovery of the Chinese economy, underpinned by government policies (Figure 13), (2) increased mining production for rising resource prices (Figure 14), and (3) progress in inventory adjustment in U.S. (Figure 15).

Figure 12 Real private-sector capital spending



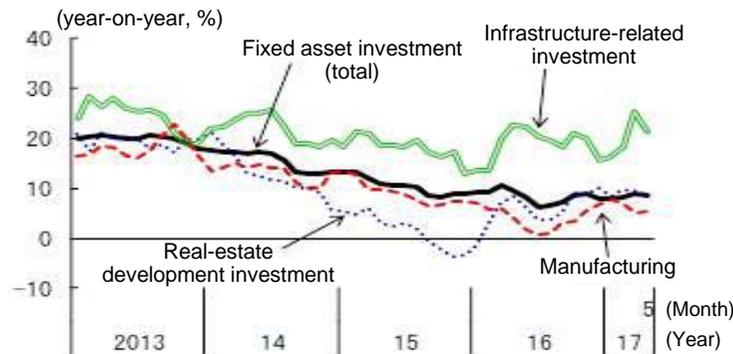
(Note) 1. Adapted from statistics of the countries.
 2. For EU, capital spending in machinery equipment.
 3. For China, nominal fixed asset investment of private-sector corporations. Four-quarter average.

Figure 14 Resource prices, and mining production in U.S.



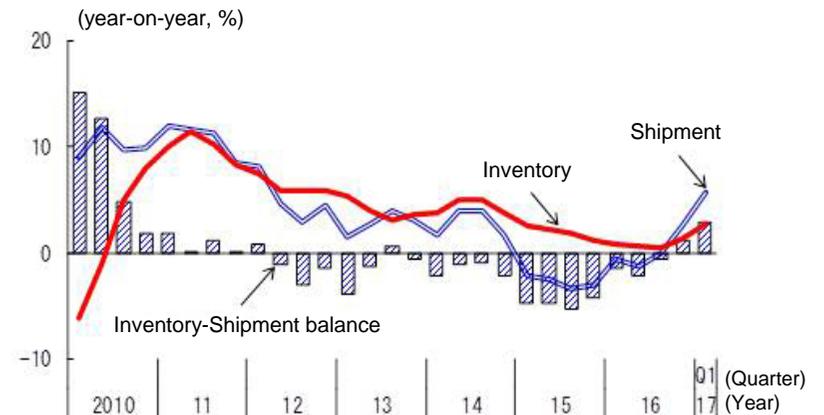
(Note) Adapted from US Department of Commerce and IMF.

Figure 13 Fixed asset investment in China



(Note) 1. Adapted from National Bureau of Statistics of China.
 2. Infrastructure-related investment is the sum of capital spending in road, dam, railroad, etc.
 3. 3-month moving average.

Figure 15 Inventory - shipment balance in U.S.

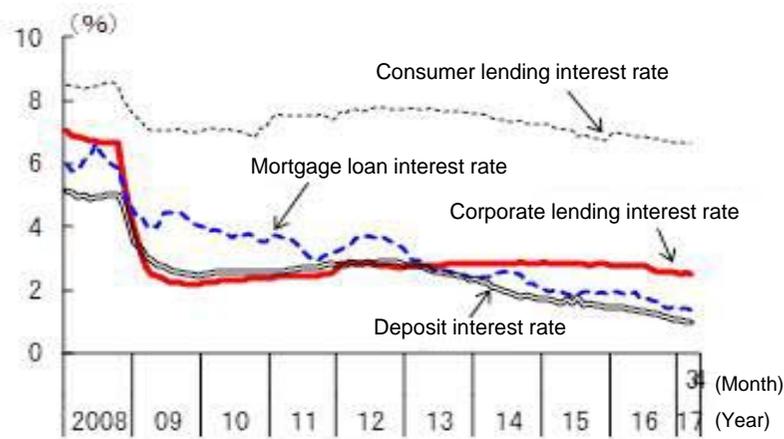


(Note) Adapted from U.S. Census Bureau.

(The UK economy maintains greater robustness than expected.)

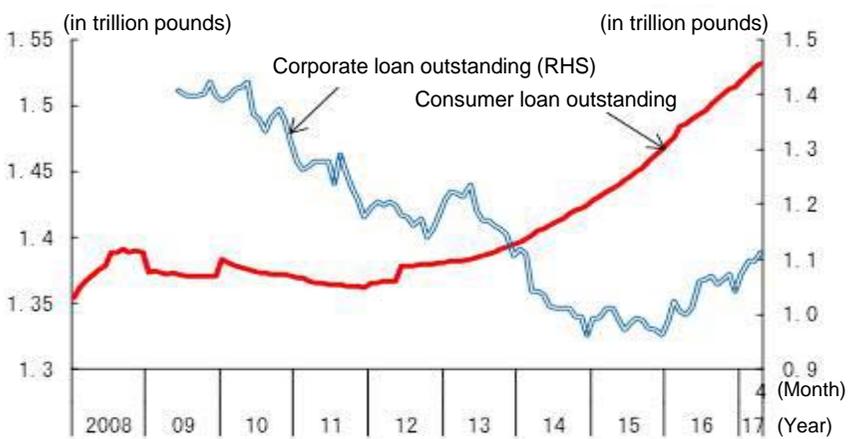
- After the referendum on whether to stay in or leave the EU, the UK economy maintains greater robustness than expected by international institutions.
- That is attributable to (1) little deterioration observed in financing environments for households and corporations thanks to adoption of comprehensive monetary easing measures (Figures 16 & 17), (2) growth of exports supported by the weaker pound and the recovering global economy (Figure 18), and (3) fiercer competition in the retail sector, including competition with online stores, which prevented increased import prices for the weaker pound from being passed immediately on to consumer prices, especially food ones, helping avoid large decline in consumption (Figure 19). At the moment, however, consumer prices have risen, weighing down consumption.

Figure 16 UK lending & deposit interest rates



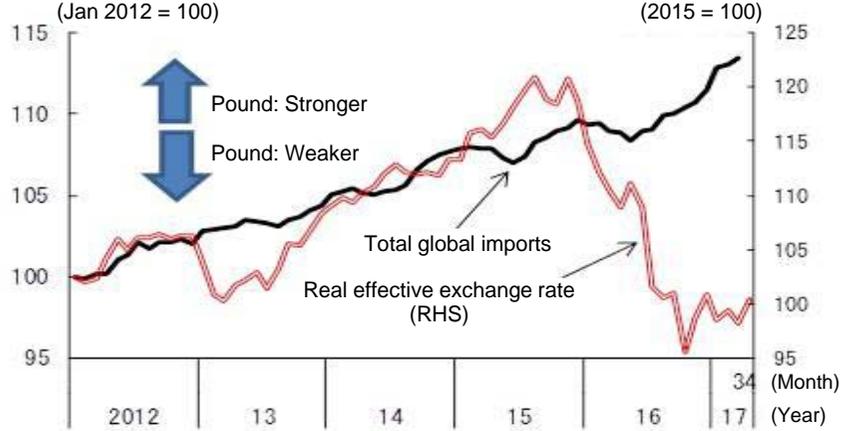
(Note) 1. Adapted from BOE.
 2. Average of 19 UK financial institutions.
 3. Consumer lending excludes credit card debt.

Figure 17 UK banks' loan outstanding



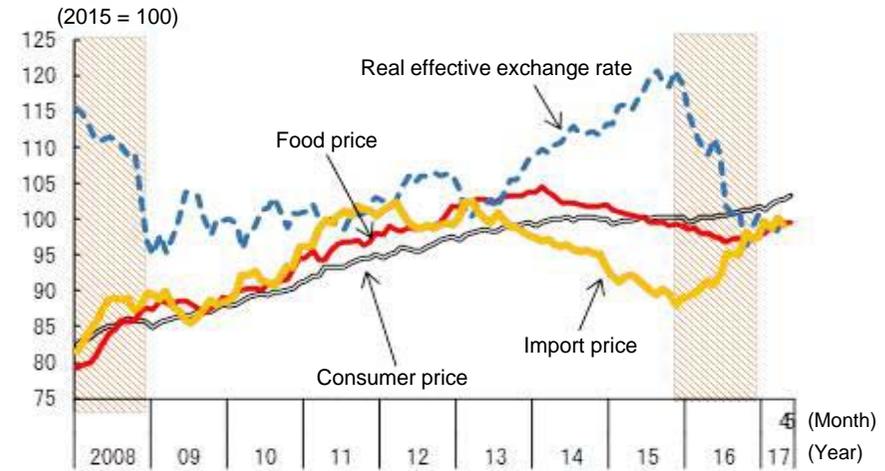
(Note) 1. Adapted from BOE.
 2. Corporate loan covers any lending of financial institutions to the corporate sector.

Figure 18 Changes in UK exchange rate, and global imports



(Note) 1. Adapted from CBP "World Trade Monitor".
 2. 3-month moving average.

Figure 19 UK: Changes in exchange rate and import & food prices

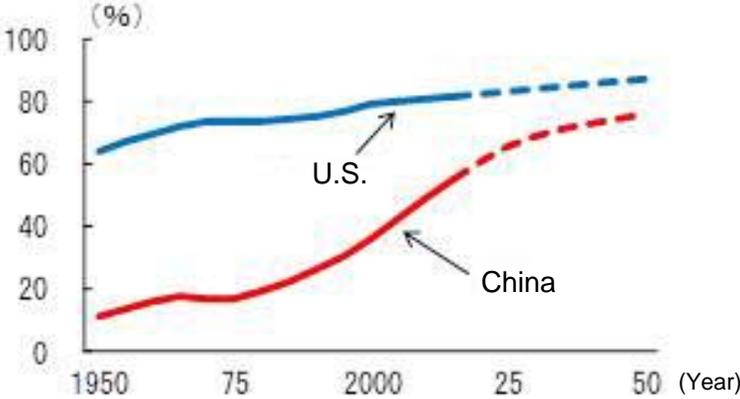


(Note) 1. Adapted from the UK Office for National Statistics. For real effective exchange rate, adapted from OECD.
 2. Food price refers to the consumer price index (food and non-alcohol beverage).
 3. During the shaded period on the chart, the pound was weaker.

(Potentials of consumption in China, and changes in its trade structure)

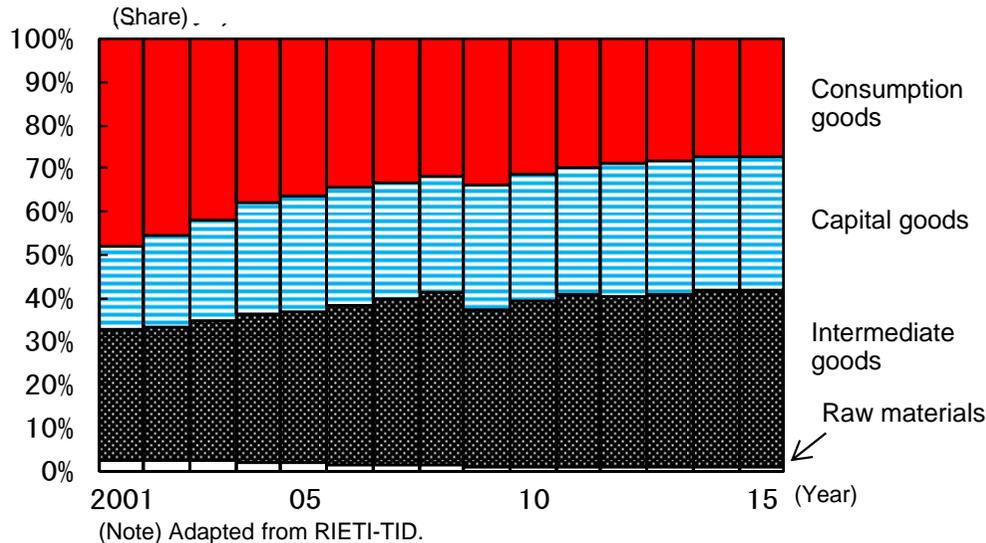
- ❑ In China, continuing rapid urbanization is expected (Figure 20). As disposable income has been increasing along with urbanization, consumption is expected to grow (Figure 21).
- ❑ The trade structure of China has changed, transforming from supplier of consumer goods, once known as "world factory", to that of intermediary goods (Figure 22). Overproduction in China lies behind increased exports of steel and non-ferrous metals from the country (Figure 23). In the electrical machinery sector, China still imports components to export finished products, leaving the conventional structure as ever.

Figure 20 Changes in urbanization rate



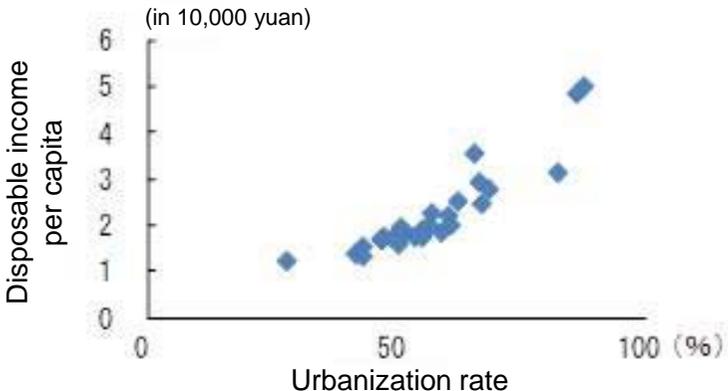
(Note) 1. Adapted from United Nations, "World Urbanization Prospects: The 2014 Revision".
 2. From 2015 (dotted lines) onwards are forecasts.

Figure 22 Shares of exports by production stage



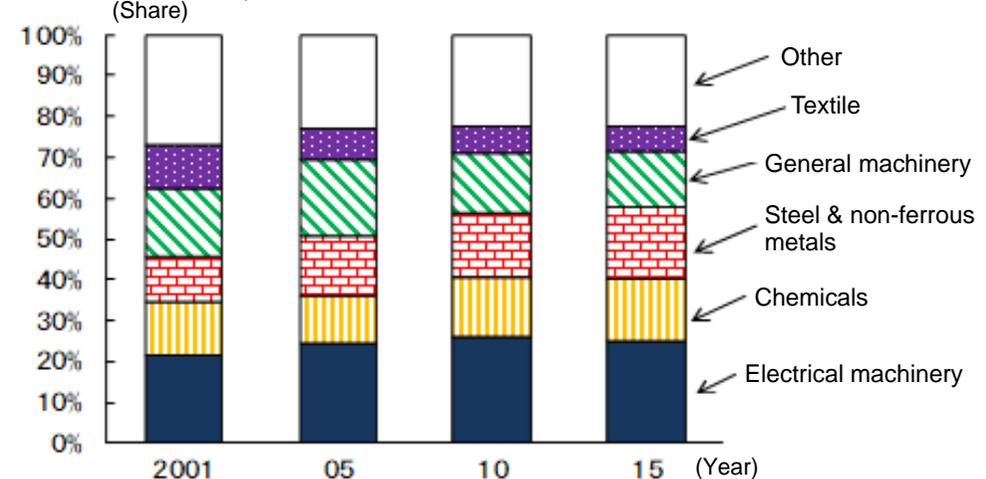
(Note) Adapted from RIETI-TID.

Figure 21 Urbanization by province/city, and disposable income per capita



(Note) 1. Adapted from National Bureau of Statistics of China.
 2. Urbanization rate: Percentage of regular residential population in urban areas (people living in any urban area for six months or more) to the entire population.

Figure 23 Shares of exported intermediate goods by sector

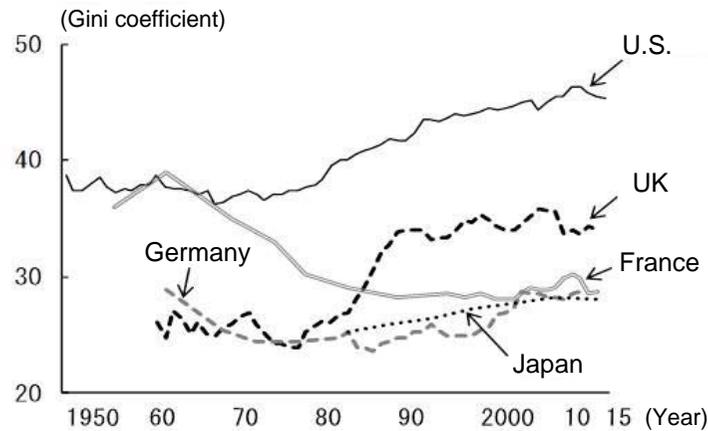


(Note) Adapted from RIETI-TID.

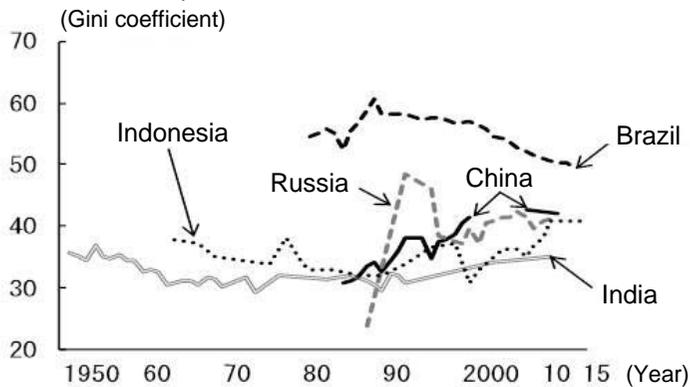
(Reference) Globalization and inequality

- From the 1980s', major economies see domestic inequalities growing (Figure A).
- An international institution estimates that growing disparities are only partially attributable to globalization, and that a major contributor is advancement of technology (Figure B). International trade helps narrow gaps. Education is effective to reduce wage differences (Figure C).
- What is crucial to help adjust the structure smoothly amid advancing globalization is not only adopt passive labor market policies (unemployment benefits, etc.) but implement active ones (support for workers for job changes, etc.) as well as social security programs (enhanced work incentives, etc.).

Figure A Gini coefficient: Developed, emerging, and developing economies

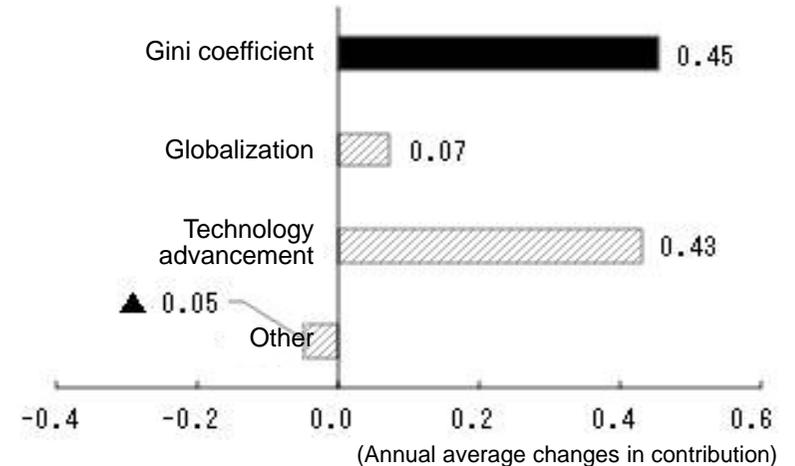


(Note) Adapted from Atkinson et al., The Chartbook of Economic Inequality. For Japan, adapted from Ministry of Internal Affairs and Communications (MIC), National Survey of Family Income and Expenditure.



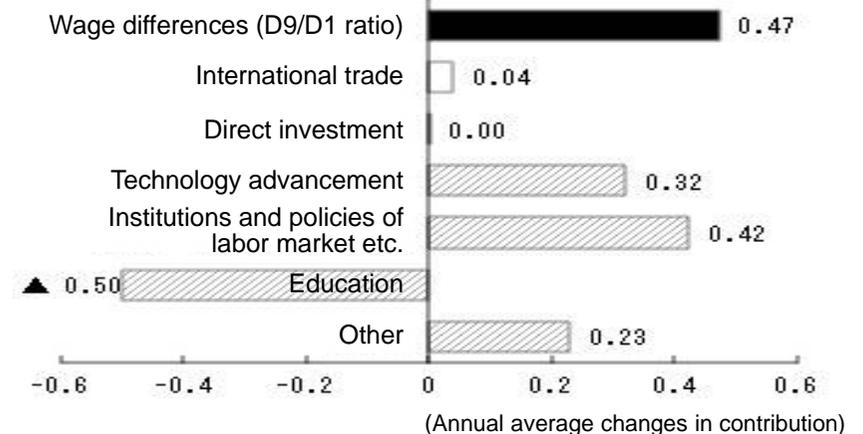
(Note) Adapted from Atkinson et al., The Chartbook of Economic Inequality. For Russia, adapted from World Bank. For China, adapted from All the Ginis Database (version October 2016) till 2001, and World Bank for 2008 and 2012.

Figure B Contribution to increases in Gini coefficient (estimated by IMF)



(Note) Adapted from IMF, World Economic Outlook (2007).

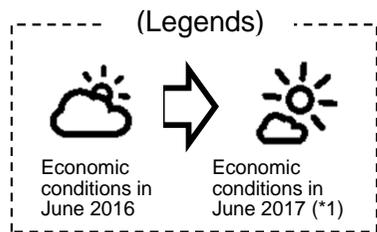
Figure C Contribution to increases in wage inequalities (estimated by OECD)



(Note) 1. Adapted from OECD, Divided We Stand (2011).

2. White bars (international trade & Direct investment) indicate that the values are statistically insignificant.

(Reference) Trends of the world economy



[World]

(Reference) (*2)
2017 (Estimate): 3.5%
2018 (Estimate): 3.6%

June 2016: Despite some weakness observed, the overall economy is recovering moderately.
June 2017: The economy is recovering moderately.

[U.S.]

(Reference)
2017 (Estimate): 2.3%
2018 (Estimate): 2.5%

June 2016: Despite weaker movements in some parts of the corporate sector, the economy continues recovering.
June 2017: The economy continues recovering steadily.

[Germany]

(Reference)
2017 (Estimate): 1.6%
2018 (Estimate): 1.5%

June 2016: The economy is recovering moderately.
June 2017: The economy is recovering moderately.

[China]

(Reference)
2017 (Estimate): 6.6%
2018 (Estimate): 6.2%

June 2016: The economy is slowing down moderately.
June 2017: The economy shows movements of picking up thanks mainly to effects of policies.

[UK]

(Reference)
2017 (Estimate): 2.0%
2018 (Estimate): 1.5%

June 2016: The economy is recovering.
June 2017: Despite weaker movements seen in some sectors, the economy is recovering.

[Euro zone]

(Reference)
2017 (Estimate): 1.7%
2018 (Estimate): 1.6%

June 2016: Despite weaker movements in some parts of the corporate sector, the economy is recovering moderately.
June 2017: The economy is recovering moderately.

(*1) Economic conditions stated by the Cabinet Office in the "Monthly Economic Report" of the relevant month as its assessment.

(*2) Estimates offered for reference are from IMF "World Economic Outlook April 2017".