Until last week, our analysis of international trade has been concerned primarily about tangible merchandise such as food and manufactures. As a country becomes more affluent, however, its production and consumption shift from tangible goods to intangible services.

International trade in services has grown noticeably in recent years. This week, we will study the nature of service industries and what kind of services are traded internationally. As a case study, we will also look at recent developments in international tourism in Japan.

**Economic Development and the Service Sector**

In high-school social studies, you have probably come across the hypothesis known as Petty’s Law (or the Law of Petty/Clark). According to this hypothesis, a country’s main production activity switches from the primary sector (agriculture, fishery and mining) to the secondary sector (manufacturing and construction) and then to the tertiary sector (service inclusive of public administration) in the course of economic development.

Figure 1 plots data on the income level and the shares of three main sectors in national employment for a large number of countries. According to this figure, the share of agriculture in total employment is high in low-income countries but minuscule in high-income countries. The relationship between the income level and the share of industry (of which the largest segment is manufacturing) and is hump-shaped and highest in mid-income countries. Lastly, the share of the service sector tends to rise throughout the course of economic development and dominates the whole economy in high-income countries.

*Figure 1. Share in total employment (2015)*

(Notes) “Industry” in this figure includes manufacturing, construction and utilities (electricity, gas and water). GDP per capita is adjusted for international differences in prices and converted into dollars as of 2011. This figure excludes countries whose population is smaller than one million and/or whose exports of fuels account for over 50 percent of their total export earnings.  
(Source) World Bank, *World Development Indicators* (see the URL quoted in earlier lecture notes).

Nevertheless, the service sector comprises a variety of industries. Table 1 lists representative industries with
relevant data on Japan and the USA. Transport, storage and distribution are services that bring merchandise produced by the primary and secondary sectors to final consumers. Personal services include a wide range of business-to-consumer (B2C) services such as tourism, education, and medical & social services. Professional and business services refer to business-to-business (B2B) transactions in advertising, accounting and other specialized services. Other services, such as information & communication and finance & insurance, include both B2C and B2B transactions.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Japan</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service sector total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Transport, storage and distribution</td>
<td>32.3</td>
<td>31.7</td>
</tr>
<tr>
<td>Personal services</td>
<td>21.7</td>
<td>21.5</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>10.4</td>
<td>12.1</td>
</tr>
<tr>
<td>Information and communication</td>
<td>8.3</td>
<td>8.3</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>8.8</td>
<td>7.4</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>18.5</td>
<td>19.0</td>
</tr>
</tbody>
</table>

(Note) This table excludes public administration, defense and compulsory social security.
(Source) OECD Structural Analysis database (http://www.oecd.org/industry/ind/stanstructuralanalysisdatabase.htm).

According to Table 1, there are noticeable discrepancies between the shares in total value-added and total employment in some industries. An industry whose value-added share is higher than its employment share has an above-average labor productivity, whereas the converse is the case for an industry whose value-added share is lower than its employment share. High labor productivity does not necessarily mean high efficiency, however. As we discussed in Week 3, individual industries differ considerably in terms of factor intensity. For example, although information & communication, finance & insurance, and real estate industries have large value added per worker, this is in part because these are capital- and technology-intensive industries that engage in extensive capital investment and research and development (R&D).

**International Trade in Services**

Many services require the seller (producer) and the buyer (consumer) to be in close proximity and are inherently unsuited to long-distance transactions. Examples are personal services such as accommodation, food catering and social work. However, other types of services can be and are traded actively across national borders.

One classic category of such “tradable” services is transport and travel. When a firm hires a foreign shipping company to send goods to a foreign country, or when a person purchases a flight ticket from a foreign airline company, these transactions involve legal residents (the buyer and the seller) in different countries and can be regarded as international trade. Transport services concern both freight and passenger transportation and include postal and courier services. International travel services concern all types of expenditure by tourists and business travelers in a foreign country. Such expenditure includes accommodation and local travel expenses as well as payments for goods purchased in that country and brought home.
Figure 2. Global trade in services 1980–2016


There are also services that were traditionally non-tradables but have recently been made into tradables by information and communication technology (ICT). This type of *ICT-enabled services* includes both B2C activities (e.g., language tutoring and call-center services via the internet) and B2B operations (e.g., computer programming and on-line financial management). Importantly, the progress of ICT facilitates long-distance communication and helps multinational corporations (MNCs) to organize their cross-border activity, so much so that a considerable portion of international B2B service transactions are in fact *intra-firm trade* by MNCs.1

According to Figure 2, world trade in services has been expanding rapidly since the early 2000s against the backdrop of the ICT revolution and deregulation of the service sector in many (but not all) countries.2 Today, service trade accounts for about one-fifth of global trade and is growing at least as rapidly as trade in goods.

**A Case Study: Will International Tourism Revive the Japanese Economy?**

Traditionally, Japan ran a large surplus in goods trade and a deficit in services trade. In recent years, however, this pattern of trade imbalances has changed noticeably.

According to Figure 3, Japan’s goods trade surplus has been decreasing over time, although deficits in 2011-2015 were due in part to an increase in energy imports after the Great East Japan Earthquake.3 On the other hand, the negative balance in services trade narrowed steadily over time. A major factor behind this development is that the balance of travel services — the difference between expenditures by foreign visitors in Japan and expenditures by Japanese travelers in foreign countries — has turned from large deficits to a modest surplus.

The main reason behind the improvement in the travel balance is a surge in foreign visitors to Japan. Although Japanese visitors to foreign countries used to outnumber foreign visitors to Japan by a factor of two to three, inbound tourists started increasing sharply in the early 2010s. While visitors from practically all parts of the world have increased, about 76% of the total increase during 2012-2016 was accounted for by visitors from four neighboring countries/regions: China, Hong Kong, Korea and Taiwan.

1 We will discuss MNCs and international production/distribution networks in Week 8.
2 Although the WTO promotes liberalization of service trade with its *General Agreement on Trade in Services* (*GATS*), this agreement is less binding than the GATT and has been adopted only selectively by member countries.
3 As will be discussed in Week 10, the trade balance of a country often turns from positive to negative as its economy matures.
Figure 3. Japan’s balance of trade in services (¥ trillion)


The sharp increase in inbound tourists surprised the Japanese government. Although the government used to have the official target of increasing the annual number of foreign visitors to Japan to 20 million by 2020, this target has already been met and has been revised upward to 40 million by 2030 and 60 million by 2040. Today, the government also aims to increase the annual expenditure by overseas visitors from the current ¥3.5 trillion to ¥8 trillion by 2020 and to ¥15 trillion by 2030, so as to stimulate the domestic economy.

Figure 4. Visitor arrivals to and resident departures from Japan (100 thousand persons)

(Note) “Departures” refer to residents in Japan who went abroad. “Arrivals” refer to non-Japanese residents who arrived Japan. The left and right panels present the same data but employ different scales on the vertical axis.

(Source) The Japan National Tourism Organization and the Ministry of Justice.

However, international tourism depends on a number of factors that are beyond the government’s control. For example, the recent surge in inbound tourists to Japan was due in part to strong economic growth in neighboring countries and a fall in the value of the yen. A yen depreciation makes trips to Japan more affordable for foreigners but makes it more difficult for the Japanese people go overseas, just as a yen depreciation boosts Japan’s exports but dampens its imports. As shown in Figure 3, moreover, an increase in inbound visitors is not necessarily a boon to Japan’s transport sector if inbound tourists choose cheaper foreign airlines.