6th October, 2017

“Globalization and Japanese Manufacturing Industry”

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Abstract

Although the share of manufacturing industry declined steadily and slowly in Japan, it still has close to 20% of nominal GDP. In most of developed countries, the share came down to around 10%, but in Japan and Germany, the share maintains around 20%. China and Korea, during last several decades emerged as manufacturing giants and the share of manufacturing industry reached 30% of the GDP. However, it is still true that Japan and Germany remain to be major manufacturing hub.

(I)

“Globalization and hollowing out of manufacturing industry in developed countries”

As globalization proceeds rapidly, manufacturing industry in most of developed countries declined steadily.

Although the Japanese share of manufacturing industry declined from 27.1% of nominal GDP in 1980 to 18.2% in 2012 (World Bank Survey) it is substantially higher than the world average (12.2%). U.S. ratio was 10.7% while those of U.K. and France were 10.1% and 10.0%. Developed countries which had higher ratio of manufacturing industry were Germany (22.4%), Switzerland (19.0%) and Japan (18.2%). Japan and Germany still are major manufacturing hub. However, ratio of overseas production increased quite rapidly during last several decades. In 1995, the ratio was only 8.3% but increased to 24.3% in 2014. During the last 30 years, the ratio tripled. In particular, oversea production ratio of transport machineries was so high as 46.9%.

In 2015, the ratio of overseas sales of Japanese corporations reached 58.3% of the total, 1.4% points higher than 2014. North and South America was the highest at 25.9% followed by Asia-Pacific (18.4%) and Europe (8.9%). In particular, transportation machineries and electric machineries ratios were as high as 62.5% and 58.5%. This is definitely the result of globalization and Japanese corporations have adjusted to the ongoing trend. Rather than exporting from Japan, manufacturing products at the sales location is much more efficient and less costly. Also, while Japanese domestic demand is slowing down, demand in developing countries such as China, India and ASEAN countries are growing stronger, Growth rates of GDP of India and China in 2016 were 6.83% and 6.70% respectively. ASEAN countries grew at high rates, as well. Philippines grew at 6.84% while Myanmar and Vietnam grew at 6.30% and 6.21% in 2016. Indonesia growth rate was 5.02% while Malaysia grew at 4.24%. Japanese corporations tried to benefit from these high growth countries manufacturing and selling at their countries. Although Japanese domestic growth has become low, companies could enjoy high growth by globalizing their operations.

The companies whose overseas sales are high are Mitsui Kaiyo (producer of equipment for ocean oil field, 100%), Murata Manufacturing (91.9%), TDK (91.4%), Shinano (90.0%), Yamaha Motors (89.3%), Takata (88.1%) and others. Many of these companies have unique technology and high shares in the world.

Top Japanese companies such as Toyota, Canon, Sony and Nissan, also, have high ratio of overseas sales. In 2015 Toyota's overseas sales were 75% of the total, while Canon, Sony and Nissan had 81%, 72% and 80% respectively. (announced by Interbrand, top branding company in the world in 2015) Many of automotive and precision machinery companies are global companies. Accordingly, overseas production ratio was as high as 24.3% in 2014 as mentioned above and the ratio of manufacturing corporations engaged in overseas production was 64.6% in 2014. Oversea production ratio of automobiles is particularly high. In 2015, overseas production ratio of all Japanese automobile producers was 67% of the total. The ratio was 38.0% of the total in 2000 and during the past fifteen years the ratio increased by 76%. In 2015, Toyota's ratio was 64.3% while those of Honda, Nissan and Mazda were 83.9%, 83.15% and 36.9% respectively. These Japanese automobile companies are truly global companies in 2016. Toyota group sales was number one in the world totaling 10.151 million cars followed by Volkswagen (9.930 million) and General Motors (9.840 million). Fourth was Renault Nissan alliance with 8.528 million. Honda was number seven with 4.710 million while Suzuki was number ten with 2.88 million. Volkswagen is the major competitor of Toyota and it has many famous brands under its control. Porsche, Audi, Bentley and Lamborghini are in Volkswagen group. During the first six months of 2017, the alliance of Nissan, Renault and Mitsubishi became the top in the world with sales of 5.268 million beating 5.156 million sales of Volkswagen. Toyota group was the third with sales of 5.129 million.

Given president Donald Trump's criticism that production of automobiles in Mexico and subsequent exports from there decreases U.S. employment, Toyota announced five years plan that it would increase investments in the U.S. by ten billion U.S. dollars during this period. Domestic production of automobile in Japan reached 9.2 million in 2016 and form the solid basis for the Japanese economy. If further investment in the U.S. as committed to president Trump, results in the reduction of domestic production, it would have serious negative impacts on the Japanese economy. The companies have to come up with the plan to increase U.S. production but not to decrease Japanese domestic production which may not be so easy. As mentioned above, Toyota is a global company and U.S. is a very important market for them. During the first quarter of 2017, Toyota's sales in the North America was 2.85 million which is bigger than its domestic sales of 2.24 million. Its sales in Europe was 920 thousand while it was 1.41 million in Asia excluding China. In Central and South America, it was 1.48 million. Given the extreme importance of U.S. market for Toyota it is only natural and appropriate that Toyota responded to president Trump's criticism immediately, by announcing its five years plan to increase U.S. production.

(II)

"Expansion of the Tertiary Industry"

In 1980es, the Japanese manufacturing industry was the biggest domestic industry occupying close to 30% of the total while service industry was less than 15%. However, the share of manufacturing industry has declined steadily to around 18% in 2015. In the meantime, service industry which was around 13% in 1980 increased its share to around 20% in 2015. Currently, service industry and sales industry (wholesale and retail sales), together have close to 35% and the total which is almost double the share of manufacturing industry. The expansion of service and sales industries is the worldwide trend for developed economies. In the United States, the share of tertiary sector in 2015 was 79.7%. While it was 78.3% in U.K. France, Germany and Italy had 79.8%, 71.1%

and 73.8% respectively. Japanese share was 71.4% which was somewhat low compared to U.S. and U.K., but it roughly corresponds to the German share. As mentioned earlier, Japan and Germany still maintain the solid manufacturing sector despite worldwide trend toward tertiary sector. Value added percentage of service sector out of nominal GDP was 69.4% in 1997 among OECD members and it increased to 74.2% in 2015 and as mentioned above, U.S., U.K., France service sector shares were above the OECD average, while German and Japanese shares were below the average. Between 1997 to 2015, German share increase was relatively small compared to others (only 1.5 percentage points). Although Japanese share increased more than five percentage points during the period, it was still 71.4% in 2015.

With regard to Japanese employment, tertiary industry employs 70.0% of the labor force against 23.9% of the secondary industry and 3.4% of the primary industry in 2015. The ratio was quite different in 1950 when 39.8% was in the primary industry and 24.3% was in the secondary industry. The Japanese economy is now dominated by the tertiary industry both in production and employment. However, compared the U.S. and European countries, Japanese ratio is somewhat lower. U.S. ratio of tertiary industry employment to total labor force is 80.0% while those of U.K., France Italy and Germany are 79.0%,76.0%,69.0% and 71.0% respectively. That is the reflection of the fact that the share of manufacturing is still around 20% in Japan. As mentioned earlier, German share is somewhat above 20%, and its share of tertiary sector employment is 71.0%, close to 70% of Japan. Although the expansion of tertiary sector is the world-wide trend, Japan and Germany still retains solid manufacturing sector. Both Japan and Germany are strong in automobile production and sales. In 2015, Toyota was number one in new car sales totaling 10.15 million cars while Nissan was number four with 8.53 million. Second was Volkswagen (VW) with 9.84 million and Daimler Benz was number ten with 2.90 million.

Since technological developments in automobiles and machinery area proceeds somewhat rapidly, developed countries still maintain high shares in production and sales. In 2014, total world production of automobiles amounted to 91.31 million vehicles. Out of that 23.72 million was produced in China, 11.65 million in the U.S., 9.79 million in Japan, 6.12 million in Germany and 4.25 million in Korea. Apart from China, all other producers are developed countries. Toyota and VW compete to become the top, and in 2015, Toyota sales was 10.00 million while that of VW was 9.89 million. Altogether Japanese cars sales accounts for 32.4% of the total while German cars accounts for 15.4%. General Motors and Ford have 17.7% of the world share.

Although the world share of tertiary sector has steadily increased to 70~80% in developed countries, manufacturing sector has not necessarily weakened, particularly in Japan and Germany. Indeed, employment in tertiary industry has steadily increased and it reached more than 70% from 2012 in Japan. In the U.S., the ratio is still higher amounting to 80% of the total. In U.K., also around 80% but Germany and Italy are around 70% like Japan. As mentioned earlier, Germany and Italy still have quite solid manufacturing sector employing around 20% of labor force. Although expansion of service sector is the world-wide trend, hollowing of manufacturing sector has not taken place in countries like Japan and Germany. They have solid manufacturing sector and remains to be the production hub for high technology area including automotive industry.