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Analysis of Corporation Tax Reduction

Curbing hollowing out and harnessing overseas economic growth

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Summary

- The Abe administration has decided to raise consumption tax in April 2014 as scheduled. To mitigate the adverse effects arising from this hike, the government is likely to work out policy measures by December. Of those under review, worth monitoring is a reduction in the corporation tax rate.

- According to *Mirrlees Review*, *Reforming the tax system for the 21st century*, released by the Institute for Fiscal Studies, a UK private think-tank, the rate of corporation tax affects decision making by multinational companies in three stages: first, selecting nations in which to invest; second, weighing up how much to invest; and finally, determining nations where earnings belong.

- Japanese companies have aggressively invested overseas, resulting in a sharp uptrend of their production overseas. In contrast, exports from Japan have been flagging, likely generating downward pressure on the economy.

- Factors pushing up the overseas production ratio were a higher corporation tax rate and a shift to a stronger yen. While appreciation of the yen has been softened to some extent by BOJ's qualitative and qualitative easing measures, to curb the production shift overseas it will be indispensable to lower the corporation tax rate.

- If the effective average corporation tax rate is lowered by 10-percentage points, exports would likely rise Y2.3 trillion a year and domestic production Y4.7 trillion. The effect is not of a one-time nature but will have an enduring effect.

- In planning growth strategy for Japan, it will be important to harness and take advantage of growth in Asian and other economies. In the process, it will be indispensable that manufacturers repatriate production to Japan, and, to encourage this, reducing the corporation tax rate could be an effective stepping stone. Thus, for the government to exhibit determination in steadily pursuing growth strategy, it will be indispensable for it to announce a decision to reduce the corporation tax rate on an early occasion.

Arguments regarding lowering effective corporation tax rate

The Abe administration has decided to raise consumption tax in April 2014 as scheduled. To mitigate the adverse effects arising from the hike, the government is likely to work out policy measures by December. Among those attracting market attention is a reduction in the corporation tax rate. On the table as well are those that will lower the effective corporation tax rate further, such as tax breaks to reward capex and wage hikes, and an earlier-than-scheduled abolition of special corporation tax related to 2011 earthquake/tsunami reconstruction. However, objections have been voiced among the ruling parties, evidencing the existence of skepticism regarding the effects of lowering corporation tax.

Lowering the nominal corporation tax rate by 1-percentage point would likely reduce tax revenue by Y400 billion. Some may think that the government is simultaneously pursuing inconsistent policies—one that will put public finances on a recovery track (consumption tax hike) and another that will lower tax revenues (corporation tax cut).

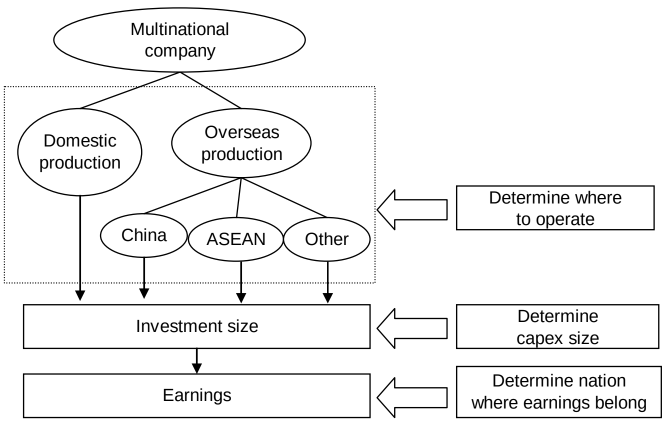
There is another argument that corporation tax breaks will not induce forward-looking business activities if companies do not pay corporation tax. Indeed, if a corporation tax cut does not improve financial statements, companies will not have any incentive to raise capex or labor’s share.

However, we believe that the corporation tax cut will have positive effects on the economy. In this report, we review how tax rate level influences decision making by multinationals. Then, we examine a case where a tax cut will curb manufacturers shifting production overseas. Companies returning to domestic production or repatriating some production to domestic facilities would have a significant impact on the economy. Of course, domestic capex driven by a tax cut would have a positive impact as well. However, the impact of the former would greatly outpace that of the latter.

Impact of corporation tax cut on multinational companies

According to the *Mirrlees Review, Reforming the tax system for the 21st century*, released by the Institute for Fiscal Studies, a UK private think-tank, the rate of corporation tax affects decision making by multinational companies in three stages: first, selecting nations in which to invest; second, weighing up how much to invest; and finally, determining nations where earnings belong (Chart 1).[1]

Effects of Corporation Tax on Decision Making of Multinational Companies **Chart 1**



Source: Compiled by DIR based on *Mirrlees Review*.

1. *Mirrlees Review* points out that at different stages of the decision making process companies tend to refer to different aspects of corporation tax—effective average tax rates to determine a nation in which to invest, effective marginal tax rates to determine size of investment, and nominal tax rates to determine nation to which earnings belong. Nevertheless, taking into account that corporation tax rates will influence business stance, it is important to examine how the corporation tax burden will be reduced.

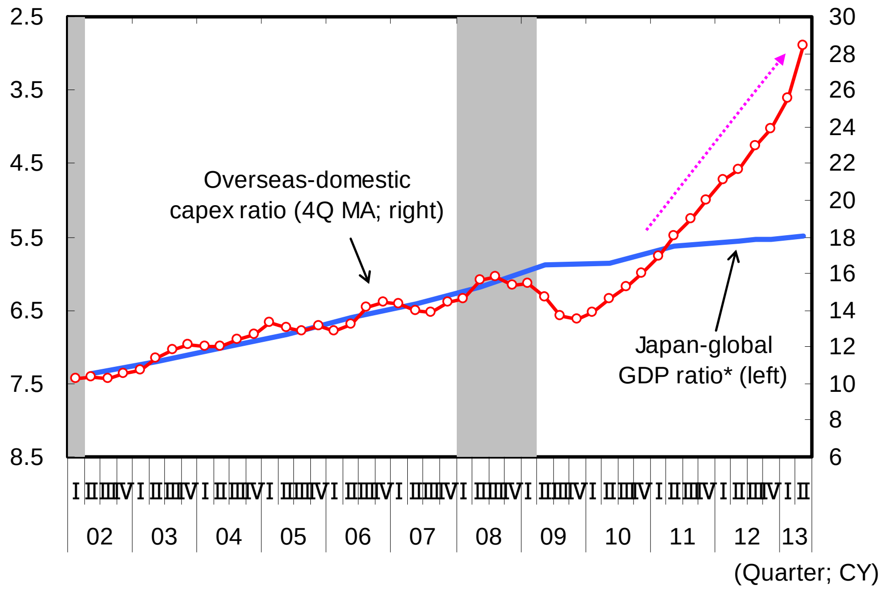
Corporation tax cut beneficial if overseas production declines and domestic production increases

Considering about 70% of corporations in Japan do not pay corporation tax, benefits of tax breaks are limited for those deciding to manufacture domestically. However, if companies, who were going to manufacture abroad, change their mind factoring in tax breaks and increase the domestic vs. overseas production ratio, tax breaks would have a good impact on Japan's economy.

Ratio of capex overseas continues to increase

Now, we review attitudes of Japanese multinational companies in terms of capex. Chart 2 shows the overseas to domestic capex ratio. In the 2000s, the ratio of capex overseas increased in line with a decline in the ratio of Japan to world GDP. However, after a slide in the wake of the Lehman crisis, capex overseas has surged compared to domestic capex. In other words, Japanese companies are disproportionally increasing their choice in making capex overseas.

Ratio of Overseas to Domestic Capex (manufacturing; %) **Chart 2**



Source: Ministry of Economy, Trade and Industry; Ministry of Finance; Cabinet Office; IMF; compiled by DIR.
*Purchasing power parity basis; IMF estimates from 2013.
Note: Shaded area denotes economic downturn. Apr-Jun 2012 defined as provisional business cycle peak (Cabinet Office).

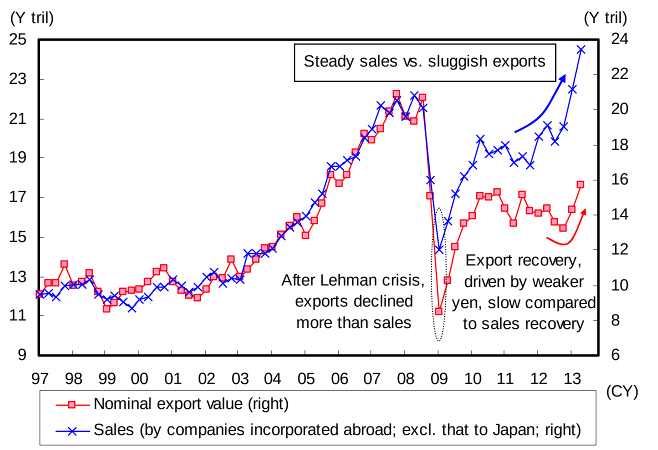
Higher overseas capex ratio likely to pull down exports

Along with a higher overseas capex ratio, shipments to multinational markets by Japanese companies have shifted to those from overseas facilities. Chart 3 compares exports from Japan and sales by Japanese companies incorporated abroad. These figures moved in tandem prior to Lehman crisis, but the export trend substantially undershot the sales trend after the Lehman crisis.

Export value has increased, benefitting from a weaker yen. However, the current level remains at about 80% of the pre-Lehman crisis peak (Oct-Dec 2007). Meanwhile, sales by companies incorporated abroad recovered to a pre-Lehman crisis level (Apr-Jun 2010) on a dollar basis and posted a record high in Apr-Jun 2013 on a yen basis, due in part to the weaker yen effect.

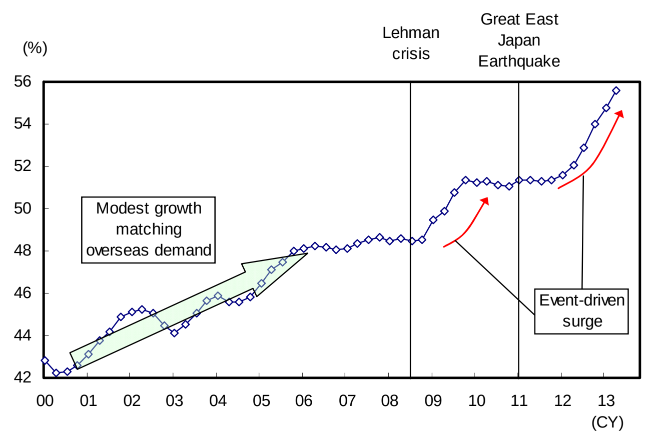
As shown in Chart 4, the ratio of production overseas[2] was on a sharp uptrend in the wake of the Lehman crisis, turned around in FY12, and has since gathered momentum. This is a reflection that companies are reducing exports and boosting production overseas.

Export Value vs. Sales by Japanese Companies Incorporated Abroad (Y tril) **Chart 3**



Source: Ministry of Economy, Trade and Industry; Ministry of Finance; compiled by DIR.

Ratio of Production Overseas* **Chart 4**



Source: Ministry of Economy, Trade and Industry; Ministry of Finance; compiled by DIR.
*Sales by companies incorporated abroad (excl. those to Japan) / (sales by companies incorporated abroad [excl. those to Japan] + exports) x 100; 4Q MA.

The reason for companies increasing the overseas production ratio is often explained as to respond to overseas demand. However, this does not explain the trend of overseas production seen above. An increase in overseas demand has surely pushed up sales by companies incorporated abroad. The problem is if overseas demand has increased, why hasn't export value increased in response to increased demand? The answer to this question should be that the overseas production ratio has increased based on reasons other than overseas demand.

Factors determining overseas production ratio

What factors have a decisive impact on determining how companies choose nations in which to build production bases? The answer is in Chart 5, which shows the estimation results of factors determining the overseas production ratio based on panel data.

Factors Determining Overseas Production Ratio **Chart 5**

Log (*overseas production ratio*) = 3.29 + 0.0029 X *EATR* + 0.066 X log (*DEMAND*) + 0.11 X log (*NEER*),

where *overseas production ratio* is "sales by companies incorporated in a given nation (excl. those to Japan) / (sales by companies incorporated in a given nation [excl. those to Japan] + exports) x 100", *EATR* "effective average tax rate in Japan – that in a given nation where companies incorporated", *DEMAND* "sales by companies in a given nation where companies incorporated + export value", *NEER* "nominal effective exchange rate"; variables having 1% significance.

The equation derived from panel estimates based on a fixed effect model, using (a) export value of Japanese companies to the US, UK, Belgium, France, Germany, Italy, Netherlands, Canada, Spain, Australia, and (b) sales by Japanese companies incorporated in these nations.

Estimation period: 1990-2005.

Nominal effective exchange rate: one-quarter previous.

Source: Ministry of Economy, Trade and Industry; Ministry of Finance; Institute for Fiscal Studies; Haver Analytics; compiled by DIR.

2. Ratio of shipments to foreign nations from production overseas = sales by companies incorporated abroad (excl. those to Japan) / (sale by companies incorporated abroad [excl. those to Japan] + exports) x 100.

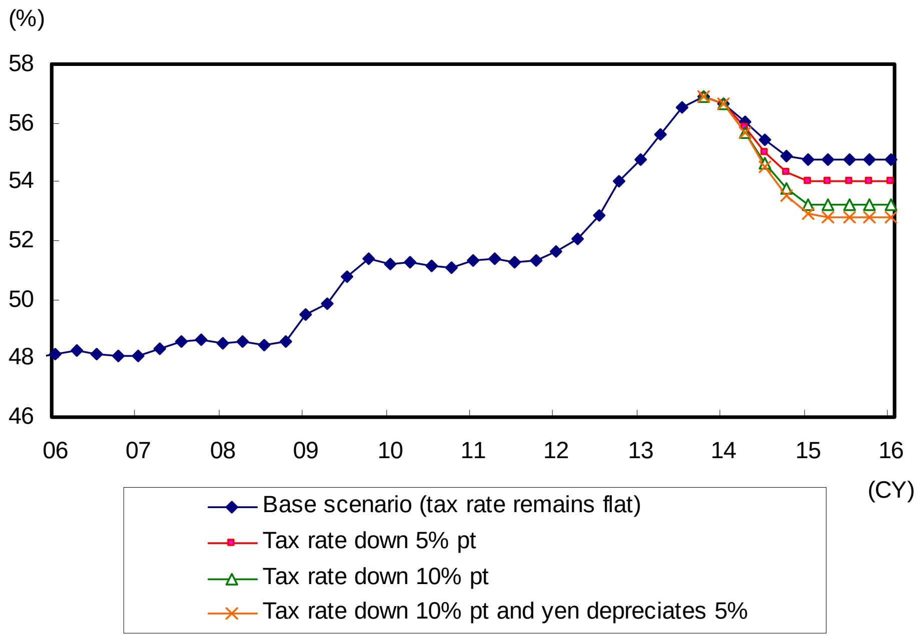
Higher corporation tax rate and stronger yen boosted overseas production ratio

As shown in Chart 5, factors pushing up the overseas production ratio were a higher corporation tax rate (here, effective average tax rate) and a shift to a stronger yen. The corporation tax rate has been relatively high in Japan, while other nations have scrambled to pull tax rates down. A stronger yen leads to higher domestic production costs. As a result, a production shift to overseas is still ongoing in Japan.

Corporation tax cut by 10% pt would boost exports by Y2.3 tril

Chart 6 is a simulation of the overseas production ratio based on estimation results shown in Chart 5. Lowering the effective average corporation tax rate by 10-percentage points is likely to lower the overseas production ratio by 1.5%. In other words, 1.5% of the sum of exports and sales by companies incorporated abroad will shift to exports. The sum is around Y150 trillion annually. Thus, exports will increase Y2.3 trillion a year, a significant figure.

Simulation of Overseas Production Ratio **Chart 6**



Source: Ministry of Economy, Trade and Industry; Ministry of Finance; compiled by DIR.
*Sales by companies incorporated abroad (excl. those to Japan) / (sales by companies incorporated abroad [excl. those to Japan] + exports) x 100; 4Q MA.
Note: Tax rate on effective average basis.

Higher exports to have ripple effect on the economy, boosting domestic production by Y4.7 tril

Through inter-industry ripple effects, higher exports will boost domestic production by a degree exceeding increases in exports. Estimates based on input-output tables (Ministry of Internal Affairs and Communications) show that lowering the effective average tax rate by 10-percentage points will likely boost domestic production by Y4.7 trillion. In the process, import value will also increase, which will hold down GDP growth (a figure on a value-added basis) to Y1.6 trillion. Nevertheless, higher production will push up the number of employees and pull down the unemployment rate. Overall, employee compensation will increase, having favorable effects on personal consumption/services.

Effects of higher exports to generate enduring effects

The effects of higher exports as a result of a shift from overseas to domestic production will not be of a one-time nature but generate an enduring effect. Thus, the upswing in exports will aggregate to Y23 trillion over ten years, which will in turn boost GDP by Y16 trillion over the same period. The impact of production bases shifting back to Japan is not small in any sense.

Effects of corporation tax cut to intensify if such cut induces domestic capex

As shown in Chart 1, a corporation tax cut will not only help shift production bases back to Japan but also boost capex level and hold/circulate corporate earnings in Japan. Such a tax cut is also likely to help induce foreign companies to invest in Japan. Factoring in these effects, a corporation tax cut will likely have a larger positive impact on Japan’s economy than we estimated above.

Corporation tax cut as part of growth strategy expected

After showing a way to financial reconstruction by deciding on a consumption tax hike as scheduled, the Abe administration is expected to pursue/work out growth strategy for Japan to put a lid on deflation and achieve steady growth. To achieve such growth, it is important to draw up strategy that will harness and take advantage of growth in Asian and other economies. In the process, it will be indispensable for manufacturers to repatriate production to Japan. To encourage this, reducing the corporation tax rate could be an effective stepping stone.

In practice, the Abe administration still faces issues that have to be addressed, such as deregulation and employee practices. However, for the government to evidence its determination to steadily pursue growth strategy, it will be indispensable that it announces a decision to reduce the corporation tax rate on an early occasion.