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Japan's Trade Collapse and Road to Recovery: Vertical Foreign Direct Investment the Key

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Introduction

Will Japan recover more quickly?

Conventional wisdom sees Japan faring among the worst of the industrialized countries in the ongoing economic crisis. Tanaka Kiyoyasu does not dispute this view directly; he concedes that "trade in Japan has declined at a much faster pace than that in the US" even if the overall "impact of the economic crisis on Japan has so far been relatively moderate." But he maintains this does not tell us the whole picture. He cites studies to demonstrate a strong link between "vertical specialization and international trade" and then goes on to note that "vertical specialization is particularly clear in the case of FDI by Japanese multinationals" as opposed to those in the US.

Tanaka defines vertical specialization as the "internationalization of manufacturing supply chains" -- a process in which Japanese multinationals have been at the forefront in their role as Original Equipment Manufacturers ("OEM's") as well as positioning themselves as key suppliers to OEMs in the United States and elsewhere. Tanaka puts forward the hypothesis that this very leadership by Japanese multinationals in vertical specialization is the primary cause of "the disproportionately large collapse of trade flows in Japan". If Tanaka is right about this, then if and when a recovery begins, "the international production networks of Japanese multinationals will boost Japanese exports and imports at an accelerating rate."

Tanaka's is an interesting and provocative hypothesis. It appears to be fairly widely shared in Tokyo and could account for some of the seeming complacency over the current economic downturn that marks at least some elements of the Japanese economic elite. Tanaka does, to be sure, warn that "rising national protectionism in a number of countries could deprive the world economy of the benefits of global production networks" and advocates policy coordination to head that off. This may be a great idea in theory, but in practical terms during hard economic times, electorates expect their governments to look after national interests first. That protectionism will disproportionately hurt Japan is not a politically compelling argument outside Japan. But it does suggest that Tokyo's stakes are as high as Washington's in the success of the Obama administration's stimulus program since a restarting of the American engine of demand would seem the sine qua non for a recovery of Japan's critical export sector, particularly if Tanaka is right about the importance to Japanese industry of vertical specialization.

At crucial junctures in the past (the so-called Reagan Revolution of the early 1980s, for example, or the aftermath of the 1987 stock market crash), Japan had both the will and the ability to provide crucial assistance to Washington's recovery efforts. As America's principal external supplier of credit, Japan offered essentially unlimited, low-cost financing

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for the United States. But Brad Setser argues that China has now definitively passed Japan as the largest foreign supplier of new credit to the United States, even if Japan's total holdings of dollars (adding both public and private sector holdings) exceed those of China. While one might quibble about the relative leverage the two countries have over the United States, there is little doubt that the "G-2" world of twenty years ago – the "Nichibei" financial and currency axis -- has definitively been replaced by a G-3 world that includes Beijing and perhaps a G-4 world now that the Euro has emerged as credible rival to the dollar as a global currency. The upshot is that Japan no longer holds sole veto power over the financing of an American recovery, and Tokyo's interests are now as intertwined with those of Beijing as they are with those of Washington.

This article in the Asahi suggests the degree to which Japan's policy elite does not really know how to respond to Beijing's new prominence – particularly since, as Brian McCartan demonstrates, China is increasingly using its "soft power" to re-establish its historic dominance of the Asia-Pacific. R. Taggart Murphy

Global trade is collapsing at an unprecedented rate, but not evenly across the globe. This column argues that 'vertical specialisation' – the internationalisation of manufacturing supply chains – accounts for the amplification of Japan's drop in trade. The good news is that once OECD countries start to recover, the amplification should work in reverse, boosting Japanese exports and imports at an accelerating rate.

The US subprime mortgage crisis inflicted high capital losses for domestic and foreign financial firms that had invested in securities backed with US real estate loans. This triggered a severe credit crunch in the US, which grew into a full-blown financial crisis of global proportions and later ended up affecting the entire global economy. The prime characteristics of the current global economic crisis have so far been plummeting stock and equity prices, skyrocketing bank failures, and a sudden collapse in international trade.

Trade collapse

The aggravation of the recessionary spiral in OECD countries brought international trade to a grinding halt in the fourth quarter of 2008, and a 9% contraction in global merchandise trade, by volume, is already underway for 2009 (WTO, 2009).

Such a collapse in trade could be a natural consequence of high levels of interdependence in finance, trade, and FDI. Indeed, some consider that falling trade is caused by a massive decline in final demand and a shortage in trade credit (see for example Baldwin and Evenett 2009).

I believe, however, that these explanations fail to account for key peculiarities of the unprecedented contraction in world trade, notably that the trade contraction has been rather asymmetric across industrial economies. Another important piece of evidence is that this asymmetric fall in trade is not correlated with exposure to the crisis in any simple and straight-forward ways.

For example, trade in Japan has declined at a much faster pace than that in the US. The impact of the economic crisis on Japan has so far been relatively moderate – at least in financial institutions – yet Japanese trade has been badly hit. Figures for February 2009 indicate a 50% year-on-year contraction in Japanese export volumes and a 43% decrease in volumes of imports.[1] Meanwhile, comparable trade figures at the epicentre of the crisis, the US, show a mere 24% decrease in exports and 34% decrease in imports.[2]

What explains such a difference in the speed of trade collapse across Japan and the US? Vertical specialisation.

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The emergence of global production networks has promoted the vertical specialisation of countries and increased trade in both intermediate and final goods. Manufacturing firms increasingly specialise in particular stages of the production process and export intermediate inputs for further processing. Products may cross national borders several times and endure several transformations before they reach their final consumer.

The link between vertical specialisation and international trade enjoys strong empirical backing. In fact, back in 2001, Hummels, Ishii, and Yi showed that vertical integration could account for almost one-third of the export growth in OECD countries.[3] Yi (2009) clarifies that this link can work in both directions. In fact, he suggests that vertical integration accounted for much of the trade collapse -- but sadly, he does not provide an estimate.

Vertical specialisation boosts the values and volumes of foreign trade for the mere statistical reason that trade statistics are measured in gross terms, rather than net ones. This measurement technique partly explains that flows in trade increase (decrease) at an accelerating rate when demand rises (falls).

From this point of view, the trade collapse could result from a breakdown of vertical trade chains. While vertical specialisation can account for possible differential impacts of trade, a full explanation of the disproportionate scale of trade contraction in response to demand shocks across Japan and the US requires examining the different strategies of US and Japanese multinationals.

Vertical foreign direct investment

The growth of vertical specialisation was driven in part by investments of multinational firms to take advantage of lower costs of unskilled labour in foreign countries (Tanaka 2009). Multinationals established offshore production plants in unskilled-labour-abundant countries to conduct the unskilled-labour-intensive stages of production. Under these schemes, parent firms supplied intermediate inputs to their foreign affiliates, which performed the final assembly, and subsequently exported the final products back to home markets.

Vertical specialisation is particularly clear in the case of FDI by Japanese multinationals, but is less so in the case of FDI by US multinationals.[4] While the vertical specialisation driven by Japanese multinationals has been deeply stretched across countries, the vertical FDI of US multinationals is perhaps more concentrated on a narrow set of countries, notably Canada and Mexico.

In my view, the difference in vertical FDI strategies between US and Japanese multinationals is one possible cause of the disproportionately large collapse of trade flows in Japan in response to global demand contraction. As Japanese firms have embraced vertical FDI, Japan has been more fully immersed in vertical specialisation patterns than the US.

Concluding remarks

Once fiscal stimulus plans deployed by OECD countries spark a recovery in global demand, the international production networks of Japanese multinationals will help boost Japanese exports and imports at an accelerating rate.

However, rising national protectionism in a number of countries could deprive the world economy of the benefits of global production networks. Thus, national governments must coordinate international economic policies, so as to prevent that the trade collapse leads to a collapse in international division of labour.

Sources

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Notes

[1] Value of Exports and Imports February 2009, Trade Statistics of Japan, Ministry of Finance.
[2] US Census, Bureau, Foreign Trade Statistics: US International Trade in Goods and Services (Current Release, February 2009).
Hummels, Ishii, and Yi (2001) estimate that the growth of such vertical specialisation explained 30% of the export growth in 10 OECD and four emerging countries for 1970-1990.
[3] Using panel data on sales of foreign affiliates by Japanese and US multinationals in manufacturing sectors for the 1990s, Tanaka (2009) finds that relative skill abundance has a large negative impact on Japanese affiliate sales, but little effect on US affiliate sales.
[4] Results are robust to various tests.

Tanaka Kiyoyasu, Center-of-Excellence (COE) Researcher at the Institute of Economic Research at Hitotsubashi University.

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