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China's exports: What's really going on

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CHINA'S GDP growth slowed to 6.1 per cent in the first quarter, down from 10.6 per cent in the first quarter of last year. During the same period, China's exports fell by 20 per cent. How much of China's economic slowdown can be attributed to the global economic downturn?

Analysts have used two approaches to gauge an economy's dependence on external markets. The first approach is the ratio of exports to GDP - which stands at 35 per cent for China. According to the logic of this measure, the 20 per cent drop in exports should translate into a 7 per cent (35 per cent x 20 per cent) slowdown in China's first quarter economic growth. This clearly overshoots the actual decline of 4.5 per cent.

The other more sophisticated approach requires a bit more economics to explain. One of the basic concepts taught in introductory economics is the national income identity: GDP = consumption + investment + government expenditure + (exports - imports).

Apparently, what contributes to national income is not exports but net exports, or the excess of exports over imports. The intuition is that exports is a measure of sales and therefore includes value created by others. To make the intuition clear, consider two hypothetical countries: Maker and Packer. Both make the Lexus RX for export. Maker builds Lexus RXes from scratch using imported steel, plastics and other raw materials. By contrast, Packer imports Toyota Harriers and re-brands them as Lexus RXes. The two countries are otherwise identical.

Which economy is more dependent on exports? Obviously, Maker. A larger fraction of the price of each exported car counts towards its GDP than in the case of Packer. National income accounting accounts for that by subtracting imports from exports.

Now let's come back to China. Historically, quarterly growth in exports and GDP showed similar cyclical patterns, but export growth did not always move in sync with GDP growth. Growth in net exports tracked growth in GDP more closely. In statistical terms, the correlation between net exports and GDP growth was 64 per cent, while that between exports and GDP growth was only 33 per cent.

Now just as you think this all makes perfect sense, let us compute what net exports would have predicted for China's first quarter economic slowdown. It turned out that net exports actually increased in the first quarter of this year by over 50 per cent on a year-on-year basis. In other words, according to the net export approach, external demand should have pulled up China's economic growth by 3 per cent! What is going on here?

First of all, the dominant form of China's export activities is processing exports. That is, Chinese firms assemble imported components for re-export. When exports fall, so will imports.

More importantly, the net export approach fails to account for the indirect effects of exports on domestic components of national income.

As external demand weakens and exports fall, jobs are lost in the export sector. People will be less willing to spend given the increasing uncertainty. Some businesses will need to divest, while others will hold off adding new capital or replacing worn-out equipment. Local governments may also delay infrastructure investments targeted at attracting export-oriented businesses. Accordingly, consumption, investment and government spending will fall. Imports will therefore fall further.

In the longer term, a reduction in exports also reduces productivity growth. Many of China's exports are associated with foreign businesses. To the extent that foreign direct investment embodies technology transfer, an export slowdown would also cut into growth of productivity.

So how does this all add up? It is difficult to completely isolate the impact of external demand on the Chinese economy. For instance, as happened recently, the government reacted to weakening exports by stimulating domestic demand. However, researchers at the Hong Kong Monetary Authority recently attempted an answer by accounting for these indirect effects.

From historical data at the provincial level from 1992-2007, over the medium to long term, they found that a 10 per cent increase in exports was associated with a 2.5 per cent increase in GDP. Accordingly, a 20 per cent fall in exports would imply a 5 per cent fall in medium- to long-term GDP. Not far from the actual decline of 4.5 per cent.

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