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FOR DISCUSSION...

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When China Sneezes, Asia Catches a Cold: the Effects of China's Export Decline in the Realm of the Global Economic Crisis

Ari Van Assche (CIRANO, HEC Montréal, LICOS)

Alyson C. Ma (University of San Diego)

Les documents Pour discussion… aim to report on the current status of the situation in a particular area and to encourage discussion. They also give a viewpoint or a set of suggestions to help the debate move forward.

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Ari Van Assche

Ari Van Assche is an assistant professor in the Department of International Business at HEC Montréal. He holds a M.Sc. in Chinese Studies from the Catholic University of Leuven and a Ph.D. in Economics from the University of Hawaii of Manoa. Mr. Van Assche's field of research is in international economics, where he focuses on the organization of global production networks and its implications for trade. Mr. Van Assche is a CIRANO Researcher.

ari.van-assche@hec.ca

Alyson C. Ma

Alyson Ma is an assistant professor of Economics in the School of Business Administration. She joined the USD faculty in 2004 after receiving her Ph.D. from the University of California, Davis. Her research interests include international trade, applied microeconomics, and industrial organization. She teaches undergraduate courses in microeconomics, industrial organization, and business statistics.

maa@sandiego.edu

Abstract

For discussion...

In this discussion report, we dispel the widely held misconception that China's economy is excessively export-dependent and therefore particularly vulnerable to a drop in export demand. In the past two decades, China's dramatic exports rise has largely been driven by the fact that many foreign firms have offshored *a slice of their value chain* – labor-intensive final assembly – to China for export purposes. Many of these assembly plants heavily rely on imported inputs from East Asian economies to produce their export products. Because of this feature, China passes on a large portion of its negative export demand shocks to the East Asian economies by reducing demand for their imported inputs. Using recent trade data, we provide evidence of this business cycle pass-through during the current economic crisis.

Introduction

The recent global economic crisis has hit China's exports hard. With advanced economies' markets in turmoil and consumer confidence at an all-time low, the demand for China's exports has in the past year experienced a massive contraction. Compared to the previous year, China's exports in the first quarter of 2009 were down 20.1%, from US$304 billion to US$243 billion. The reason why this is considered a worrisome trend for the Chinese economy is that exports represented 42% of China's gross domestic product (GDP) in 2007, which is a much higher figure than that observed in other large economies such as the United States and Japan (where exports represent 12% and 18%, respectively, of GDP). Some observers thus fear that, because China is so export-dependent, the Chinese economy may be exceptionally vulnerable to changes in external demand, especially in this time of worldwide crisis. This has led to the call for China (among other Asian countries) to rebalance its growth away from exports and toward domestic demand in order to return to pre-crisis growth rates.

Compared to the previous year, China's exports in the first quarter of 2009 were down 20.1%.

This recent decline in Chinese exports thus leads to two main questions that will be addressed in this research note. First, how closely is the Chinese economy tied to the business cycles of advanced economies and therefore vulnerable to the current economic crisis? Second, how does the decline in China's exports affect its East Asian neighbors?

FIRST PART

Processing Trade and China’s Export Dependence

We start with addressing the first question by discussing China’s export-to-GDP ratio. In particular, the export-to-GDP ratio can be a very misleading indicator of China’s dependence on exports as GDP is measured in value-added terms, while exports depict the gross value of the goods that leave China’s borders (Anderson, 2007). To see how this may create biased estimates when evaluating China’s export dependence, consider the example of the iPod, which Apple assembles in China and exports to the rest of the world. In 2006, the export value for a 30GB video model was about US$150. However, Linden et al. (2007) estimate that only US$4 was produced in China, with the large brunt of value added being created in and imported from the United States, Japan, and Korea. If China’s iPod export value is converted to value-added terms by removing its import content, only 2.6% of the iPod’s gross export value remains.

This difference between gross export value and the domestic content share of exports (which is in value-added terms) is highly relevant for understanding China’s export dependence since a large portion of China’s exports (not only the iPod) heavily relies on imported inputs. Due to China’s aggressive export promotion policies since the mid-eighties, China has effectively created a dualistic trading system.[1] Under its ordinary trade regime, exports rely mainly on local inputs and imports are primarily for domestic consumption. Koopman et al. (2008) estimate that in 2006 the domestic content share of ordinary exports was 88.7%. Conversely, under the processing trade regime, firms import their inputs duty free for processing and re-export. The same authors estimate that in 2006 the domestic content share of processing exports was much lower at 18.1%.

Over the years, the importance of processing trade has grown in China's overall trade as many firms offshored their labor-intensive assembly plants to China. As it is shown in Figure 1, between 1988 and 2006 the share of processing exports in China's total exports has risen from 30% to 53%, while the share of processing imports in total imports has increased from 27% to 38%. Overall, this implies that the aggregate domestic content share in China's exports is much lower than for most other countries, amounting to only 50.8% in 2006 (Koopman et al., 2008). In other words, approximately half of China's total export value is the value of the imported inputs that are embodied in the products that are exported.

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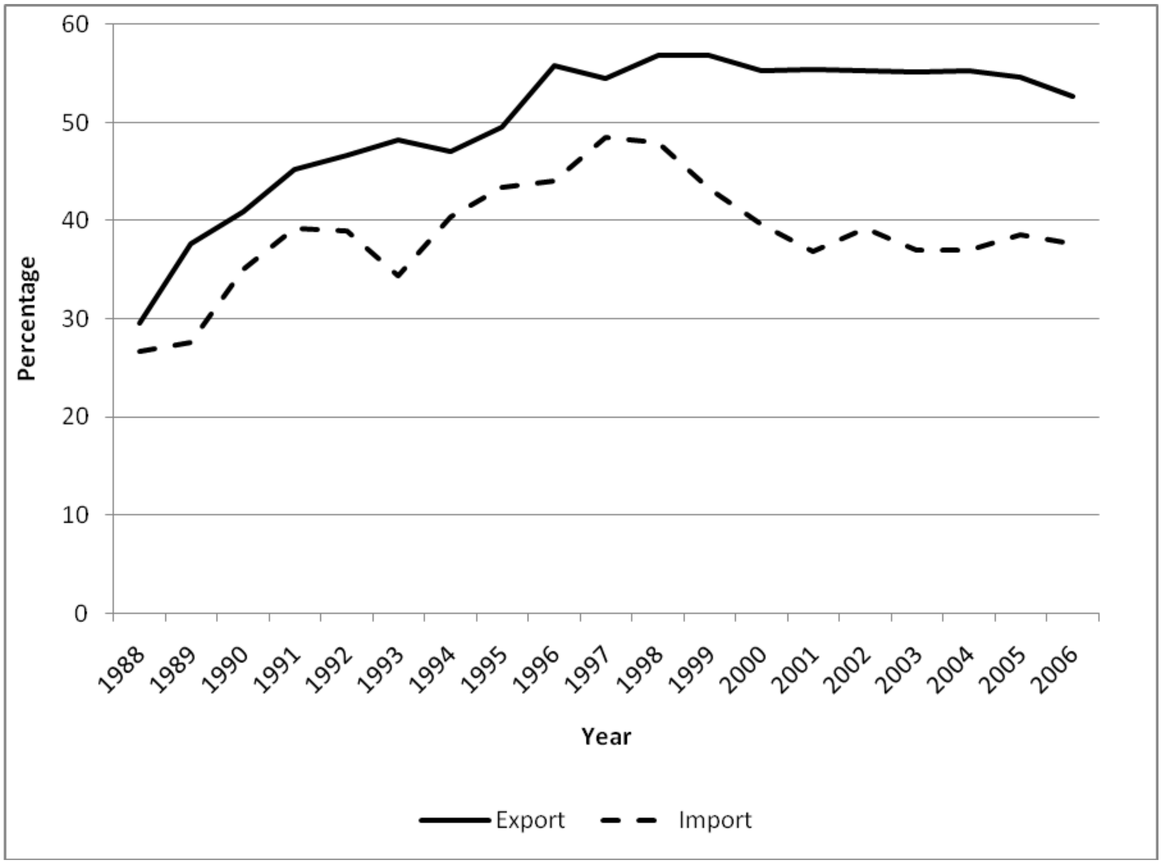
[1] See Van Assche (2009) for a more detailed explanation of China's dualistic trading regime.

Figure 1

Proportion of total trade represented by processing trade, 1988-2006



Source: Authors' calculations using China's Customs Statistics

Once we take into account the low domestic content share of its exports, China's export dependence is more limited than the export-to-GDP ratio would suggest. Indeed, if only the domestic content share of its exports is considered, China's export-to-GDP ratio drops to 21%, which is just slightly higher than that of Japan.[2] China is thus less vulnerable to shocks in

[2] We assume that the domestic content share of China's exports is the same in 2007 as in 2006.

external demand than is generally thought. In fact, Anderson (2007) and He and Zhang (2008) argue that the discussion about whether China is decoupling from the global cycle is rather mute. The Chinese economy is, and always has been, effectively decoupled from business cycles in advanced economies.

While it is still too early to determine if China's economic growth will be resilient against the sharp contraction in export demand, there are some recent indications that China may indeed be able to escape the crisis relatively unscathed (Economist, 2009). In the first quarter of 2009, China's GDP growth accelerated to an annualized rate of over 6%, up from around 1% in the previous quarter. Furthermore, big banks such as Morgan Stanley, Royal Bank of Scotland and Barklays all have recently revised up their forecasts for China's GDP growth this year from 5-6% to 7-8%.

SECOND PART

Processing Trade and Business Cycle Pass-Through

China transfers a large portion of its external demand shocks to the countries from which it intensively imports its processing inputs.

While processing trade makes China more decoupled from external demand shocks, it may make the other East Asian countries' exposure to the downturn considerably larger than often thought. This is the second issue we address in this note. Since more than 80% of China's processing export value corresponds to import content, China transfers a large portion of its external demand shocks to the countries from which it intensively imports its processing inputs.

China imports its processing inputs more intensively from its East Asian neighbors than from the rest of the world.[3] As it can be seen in the first column of Table 1, with the exception of Vietnam and Indonesia, more than 44% of China's imports from major East Asian economies were processing imports in 2006. This share is significantly higher than for countries outside of East Asia. For example, only 28.4% and 18.4% of China's imports from the United States and the EU-19[4] where processing

[3] See Zhang (2008) for a similar argument.

[4] The EU-19 countries are: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxemburg, Poland, Portugal, Slovakia, Spain, Sweden, The Netherlands, United Kingdom.

imports. As a result, we should expect that the recent decline in China's exports should go hand-in-hand with a particularly severe drop in China's imports from East Asian economies

Table 2

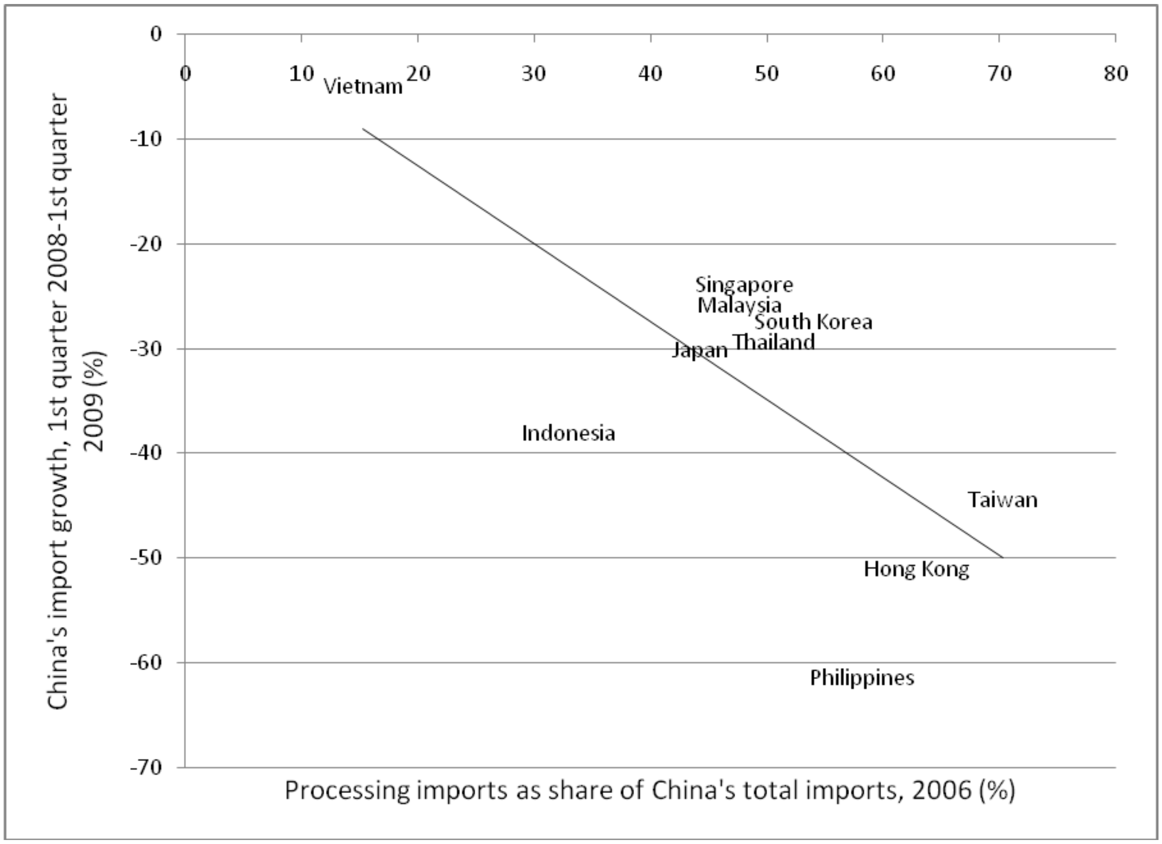
China's trade in the first quarter of 2008 and the first quarter of 2009, by region and selected countries

	Exports (US$Mill.)		Imports (US$Mill.)		Growth rate	
	1st quarter 2008	1st quarter 2009	1st quarter 2008	1st quarter 2009	Exports	Imports
East Asia	114,000	87,100	118,000	77,500	-23.9	-34.2
Hong Kong	42,400	31,600	3,220	1,580	-25.6	-50.9
Japan	26,000	21,600	34,200	23,900	-16.9	-30.0
South Korea	16,100	11,300	26,400	19,200	-29.4	-27.4
Singapore	6,940	5,770	4,370	3,280	-16.9	-25.0
Taiwan	5,700	3,720	25,800	14,400	-34.6	-44.4
Malaysia	4,730	3,610	7,360	5,500	-23.7	-25.3
Thailand	3,500	2,580	6,220	4,400	-26.1	-29.3
Philippines	1,910	1,700	5,710	2,210	-10.7	-61.3
Vietnam	3,180	2,190	787	750	-31.1	-4.8
Indonesia	3,450	2,600	3,630	2,250	-24.7	-38.0
West	114,000	92,400	49,000	40,600	-19.13	-17.15
United States	53,300	45,400	19,800	16,000	-15.0	-19.5
EU-19	62,000	48,100	29,200	24,600	-22.5	-15.6
TOTAL	304,000	243,000	261,000	304,000	-20.1	-31.0

Source: Authors' calculations using China's Customs Statistics.

Figure 2

Processing Import Share and First Quarter Import Growth



Source: Authors' calculations using China's Customs Statistics.

Conclusion

…dispel the widely held misconception that China's economy is highly export-dependent and therefore particularly vulnerable to a drop in export demand…

A particular characteristic of China's trading regime is the large role played by processing trade. This feature is important to keep in mind since it provides a more nuanced picture of China's role in the world economy than is often portrayed by the media. China's dramatic exports rise is largely driven by the fact that many foreign firms have offshored *a slice of their value chain* – labor-intensive final assembly – to China for export purposes. Many of these assembly plants heavily rely on imported inputs from East Asian economies, while they create relatively limited value added in China.

In this research note, we have used this insight to dispel the widely held misconception that China's economy is highly export-dependent and therefore particularly vulnerable to a drop in export demand in the realm of the current economic crisis. The argument that China should rebalance its growth away from exports to domestic demand in order to return to pre-crisis growth rates therefore seems largely overblown.

At the same time, this note helps to dismiss the notion that soaring trade between China and its East Asian neighbors protects East Asia against a downturn in Western economies. Because of China's heavy reliance on East Asian inputs for its exports, it effectively passes on negative export demand shocks to the East Asian economies by reducing its demand for their processing imports. Indeed, by using recent trade data, we provide preliminary evidence of this business cycle pass-through during the current economic crisis. Compared to the previous year, China's imports have in the first quarter of 2009 declined most for the East Asian countries where it most intensively sources its processing inputs.

The growth of China's economy is already mostly domestic demand-led.

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