Trade and FDI liberalisation help China move up the global value chains

Hiau Looi Kee, Heiwai Tang 09 December 2015

While domestic content in exports has been declining globally, the opposite trend has been observed in China. This column argues that this is mainly due to the structural transformation and FDI liberalisation in the country since 2000. As a result, individual processing exporters have substituted domestic for imported materials, both in terms of volume and varieties. These results indicate that China has become more competitive, particularly in the intermediate input sectors, which supports its ascent along the global value chains.

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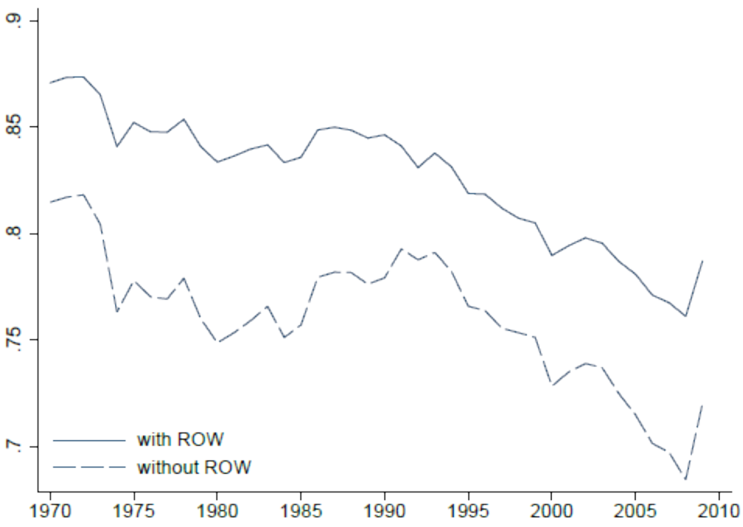
Over the past two decades, increasing global production fragmentation has allowed firms to rely less on domestic inputs for production. Indeed, research finds that domestic content in exports has been declining in most countries (Johnson and Noguera 2014) (see Figure 1). China is an intriguing exception (Koopman *et al.* 2012). What caused China to defy the declining trend in domestic content in exports in most countries, despite its deep engagement in global value chains? Could changing export compositions or rising production costs explain such a phenomenon? Or could it be due to the gradual substitution of domestic for imported materials by its exporters?

Figure 1. Value added to gross export (VAX) ratios across the world



Source: Johnson and Noguera (2014).

The increase of domestic inputs for production in China

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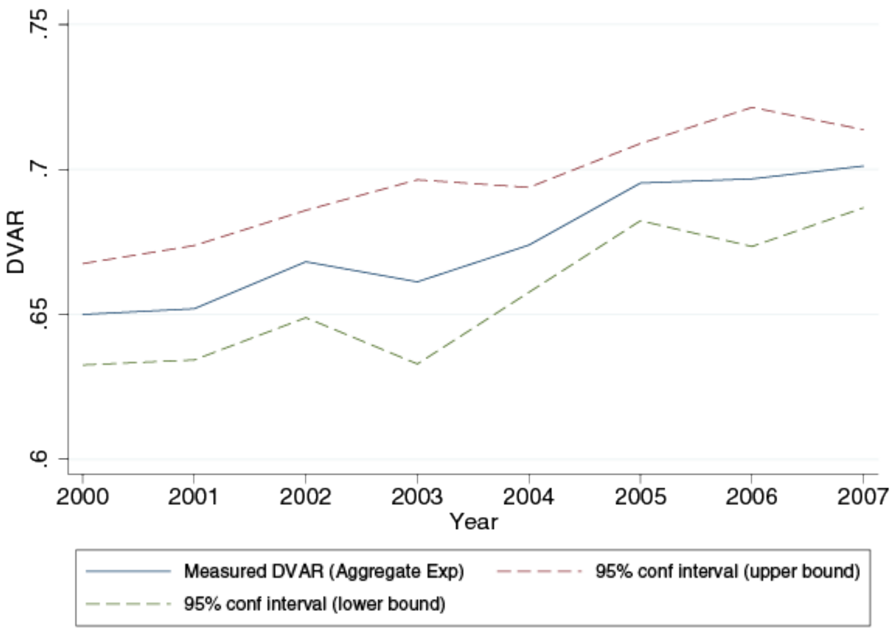
Our latest research (Kee and Tang forthcoming) suggests that China has been going through a structural transformation fused by trade and FDI liberalisation since 2000. Such liberalisation encouraged intermediate input producers in China to expand their product varieties, similar to what has been found in India by Goldberg *et al.* (2010), and in Bangladesh by Kee (2015). As such, exporters in China buy more domestic intermediate inputs and rely less on imports, leading to an increase in the share of domestic content in Chinese exports from 65% to 70% between 2000 and 2007 (see Figure 2). The magnitudes of the increases in the share of domestic content in China's bilateral exports to its trading partners are similar.

Figure 2. Domestic value added in exports for China (2000-2007)



Source: Kee and Tang (forthcoming).

We use transaction-level trade data combined with manufacturing firm survey data to measure and analyse China's rising domestic content in exports, or its ratio of domestic value added in exports to gross exports (DVAR). Our trade data cover the universe of Chinese exporters during the period of 2000-2007, allowing us to construct firm, industry and aggregate ratios over time to study their evolutions. Our firm-level approach sets us apart from the recent burgeoning literature on measuring industry and aggregate domestic value added in exports that relies on input-output (IO) tables, and enables us to take into account firm heterogeneity to minimise aggregate bias.

- We find that the increase in the domestic value added in exports to gross exports are mainly driven by individual processing exporters substituting domestic for imported materials, both in terms of volume and varieties.

Other factors, such as rising wages, changing composition of Chinese exports towards the high-DVAR industries or the non-processing sector, or firm entry and exit, cannot explain the upward trend during the period of our study.

The findings of our research support a recent paper by Constantinescu *et al.* (2015), who suggest that China's structural transformation may be an important reason for the recent global trade slowdown, as China is relying less on foreign materials thanks to its increasingly competitive domestic intermediate input industries.

Concluding remarks

In a new project, we applied our firm-level methodology to measure the domestic value added in exports to gross exports for a wide range of countries, based on the matched importer-exporter customs transaction data from the World Bank's Exporter Dynamic Database. Preliminary results presented in Figure 3 show an upward trend in the DVAR for countries such as Bangladesh, Guatemala, Madagascar, and Morocco. One common trait of these countries is their conducive

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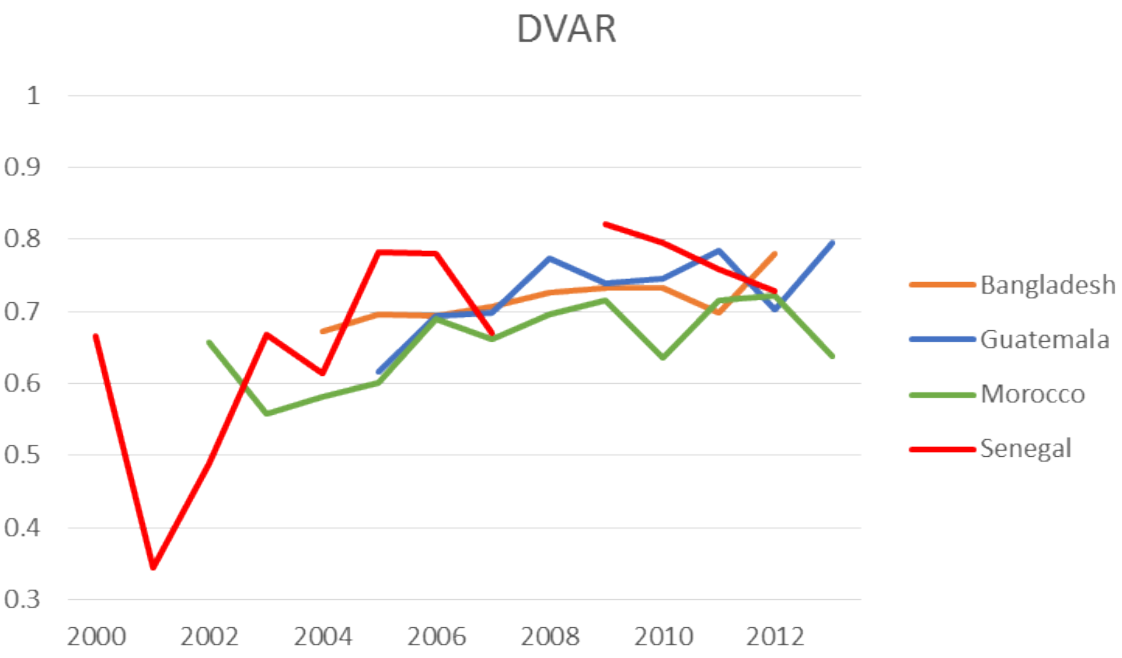
trade and FDI policies that deepen their participation in global value chains, similar to China.

Figure 3. Domestic value added in exports for Bangladesh, Guatemala, Morocco, and Senegal



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