



Trade liberalisation and embedded institutional reform: Evidence from Chinese exporters

Amit Khandelwal, Peter K. Schott, Shang-Jin Wei, 15 January 2013

The institutions that manage trade barriers are subject to corruption, imposing additional distortions. This column shows that in China, the government misallocated quota licenses permitting firms to export. When the US and EU abolished quotas governing textile exports in 2005, China experienced productivity gains not only from the actual elimination of the quota but also from the termination of the misallocation due to inefficient licensing.

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Economists traditionally assess the welfare losses of trade barriers without considering the underlying institutions that support them. In fact, these institutions may amplify welfare losses substantially. Corrupt customs agents, bureaucratic red tape and the withholding of goods in bonded warehouses may favour some firms at the expense of others, resulting in a substantial misallocation of resources. Anecdotal evidence along these lines is easy to spot. Travelling to India in the 1980s and 1990s, for example, one often encountered customs officials seeking bribes to allow goods to be brought into the country. What should have been a fairly straightforward transaction – payment of the official tariff for a gift destined for a relative – was transformed into a lengthy negotiation that resulted in arbitrary enforcement of the trade barrier. Such inconsistency is a common complaint of firms doing business in emerging markets, and may be an important contributor to the variation in cross-country resource misallocation observed by Hsieh and Klenow (2009) and others.

In principle, policymakers could use efficient institutions to administer a given trade barrier, but domestic politics often lead to inefficient management of trade policies. For that reason, externally mandated changes in trade policy via, for example, multilateral negotiations, may be a strong catalyst for igniting broader reforms.

In Khandelwal et al. (2012), we show that losses associated with textile and clothing quotas are magnified by the institutions that distribute quota licences. In 2005, quotas governing apparel and textile exports from developing economies to the US, the EU and Canada were abolished. In China, the licences permitting firms to export under these quotas were distributed by the government. We show that whatever licensing procedure China used did not distribute licences to the most productive firms. As a result of this misallocation, China experienced two sources of productivity gains from quota removal:

- The elimination of the actual quota, and
- Termination of the inefficient licensing regime and its associated misallocations.

Our estimates imply that the latter accounted for almost three quarters of the overall gain.

We derive this result by comparing the growth of quota-bound versus quota-free apparel and textile exports before and after quotas are removed. This comparison exploits variation in the application of quotas across markets. “Men’s cotton pyjamas”, for example, were subject to quotas in the US and Canada prior to 2004, but not bound by quotas if exported to the EU. Contrasting their growth in the years before and after quotas are removed controls for other factors affecting supply and demand, such as privatisation and changes in consumer preferences, that might be occurring at the same time.

Figure 1 displays the growth of constrained versus unconstrained Chinese apparel and textile exports



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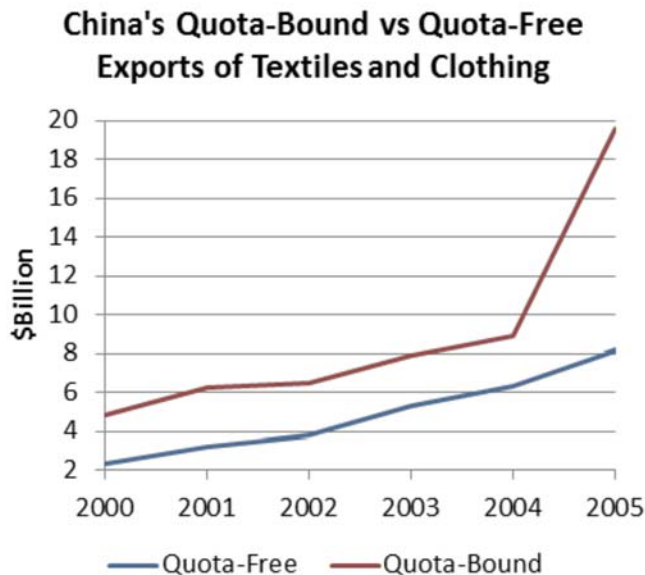
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from 2000 to 2005. As illustrated in the figure, the removal of quotas in 2005 led to a substantially larger increase in the growth of previously bound products versus products that were exported quota free. Examining the sources of this relative growth can reveal a great deal about whether or not the Chinese government allocated quotas efficiently. In theory, an efficient quota-licensing regime, like an auction, establishes a per-unit fee that equates the supply and demand for quota. This fee induces self-selection based on productivity, as only the most productive firms earn profits in the export market net of the licensing fee. Consequently, removal of efficiently allocated quotas has three observable effects. First, it causes the exports of the most productive incumbents to jump relative to those of less-productive incumbents. Second, it allows less productive firms to profitably enter the export market. Finally, entrants and incumbents have opposing effects on export prices. Removal of the licence fee pushes incumbents' prices down, while entry by relatively less productive exporters pushes prices up. The key prediction is that export growth and price declines are dominated by incumbents.

Figure 1. Chinese export growth after quotas



In fact, we find that the post-quota export growth and price declines of quota-bound versus quota-free goods are dominated by entrants rather than incumbents. Furthermore, we show that the entrants behind this trend are primarily privately owned domestic and foreign firms, and that their growth comes at the expense of state-owned enterprises, who are on average nearly a third less productive than their private-sector counterparts. Additional evidence of misallocation comes from the fact that nearly two-thirds of the price decline observed in the year quotas are removed is due to entrants rather than incumbents. These trends provide strong evidence against the hypothesis that quota licences were allocated on the basis of firm efficiency. Based on a coarse measure of productivity differences across ownership types, the observed reallocations of market share in quota-bound exports imply that industry productivity increased 21% when quotas were removed. This productivity increase is a combination of the distortion caused by the quotas and the distortion caused misallocated quota licences.

To estimate the relative contribution of removing misallocation versus the actual quota, we compare numerical solutions of the efficient export-licensing model noted above to a counterfactual calibrated to match the importance of entry that we see in the data. We find that 71% of the overall gain in productivity from removing quotas is due to the elimination of quota misallocation versus 29% for the removal of the quota itself. Our estimates suggest that simply replacing the government's actual licensing institution with an auction would raise industry productivity by 15 percentage points. This implies a sizeable drag on aggregate productivity due to misallocation.

Policy implications

Our analysis provides intuition for why empirical findings of the productivity gains from trade (e.g., Pavcnik 2002 and Feyrer 2009) are often large compared to the relatively modest gains predicted by many trade models. While theoretical models typically presume an efficient allocation of resources, conditional on trade barriers, institutions that evolve to manage them are subject to corruption or capture, imposing additional distortions. Trade costs that should be common to all firms end up varying

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across firms, and the magnitude of the distortion ultimately depends on the correlation between underlying firm productivity and the trade costs. Because reforming these institutions can be politically difficult, externally mandated reforms that dismantle them can deliver outsized gains.

Our findings also provide a counterweight to the argument that bad institutions mitigate inefficiencies associated with bad policy. By accepting bribes to facilitate trade, for example, corrupt customs officers may convert a high-tariff regime into a low-tariff regime, thereby encouraging at least some of the efficiency gains associated with trade liberalisation. Here, we provide an important counter-example, i.e. a case in which the regime used to assign export quotas substantially magnified the losses associated with restricting high-productivity firms' exports in the first place.

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