

# China and antidumping

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*Over the last decade, China has been the target of more antidumping measures than any country in the world. This column examines the impacts and argues that China should be paying more attention to measures that come from its main trading partners.*

Over the last decade, China has been the target for the largest number of antidumping measures of any country in the world. With the onset of the global crisis, antidumping has become even more in vogue (Bown 2010). How China reacts to these measures and the knock-on effects for other countries is becoming increasingly important.

## Chinese firm and industry reactions to antidumping

A prime reason for this is China's rapid export growth and the adjustment pressures this creates in foreign markets. Other reasons include China's non-market economy status in the eyes of the US and EU especially, its relatively ineffective legal defences, and the low concentration ratio in many Chinese industries which makes industry coordination to resist these measures more difficult. In recent years many of the new measures have come from other developing countries, such as India and Turkey.

When faced with an antidumping measure, Chinese industries and firms react in a variety of ways. These may include refocusing production on domestic markets, increased exports to other countries, or location abroad. Another is producing something else to avoid the foreign trade barriers. China may also choose to contest the action and try to solve the dispute by reaching agreement on a price undertaking. The final option is to close down production and exit the market.

The reaction of Chinese firms and industries to these antidumping actions is now an important element in the policy debate in China as it affects what China might do in response. If firms can easily adapt by producing different products and maintain profits and employment, a Chinese active response seems less of an issue than if they are severely impacted. Analysing the effects of antidumping actions on Chinese firms and industry groups is central to this policy debate.

## Measuring the response

We build industry-level and firm-group panel data sets covering 39 industries from 1997 to 2007 and blend them with a new World Bank dataset on antidumping measures and initiations. We separate antidumping actions into those undertaken by developed and developing countries, and also divide actions between the US and the EU. We examine their different effects on exports, output, profit, total firm number, total employee and industry labour productivity. The results allow us to assess the reactions of both Chinese industries and firm groups.

To avoid endogeneity problems, we use a system-GMM estimator on first differences using lagged difference variables as instrumental variables to construct level equations.

Except for export values at the industry and firm level, all data come from the Chinese Statistical Yearbook, and we use producer price indices as deflators. Export value data come from the Chinese Customs Statistical Yearbook. The antidumping data come from a World Bank global antidumping database (Bown 2010), which provides detailed case information by country. Because our data are firm summed by industry, we cannot include antidumping duty variables in regressions because most cases involve specific firms. Antidumping variables in our regressions are thus all dummies. Hence, if one or more firms in an industry received an antidumping investigation or measure in one year, we take that year's antidumping investigation or measure variable to equal 1, otherwise it equals 0.

## Empirical findings

We find that antidumping from both developed countries and developing countries adversely affect industry and firm groups' output, employee, profit, firm numbers, and exports, but improve labour productivity. Profits are hurt the most; next are employees, firm numbers, and exports, and output is impacted the least. This suggests that when facing an antidumping measure, Chinese firms decrease their prices and profits, and then reduce employment to lower costs, but try to maintain exports and output.

Different kinds of firms also show different kinds of responses. Foreign and state-owned-enterprise firm groups show a small reaction. This suggests that antidumping mainly influences private firms. Developed countries' antidumping has greater negative effects than developing countries' measures on all firm-summed industry and state-owned-enterprises—but the foreign firm group is impacted more by developing countries. This may be because most foreign firms in China are from developed countries and they can avoid impacts easily by intra-firm trade adjustments.

Antidumping measures from the US and EU have impacted industrial and firm groups' firm numbers, output, employees, profits and exports negatively, but have positive effects on labour productivity. Antidumping from the US and EU have more impact because they are larger trade partners for China. US antidumping measures have more influence than the EU's on firm numbers, employees and exports; and EU antidumping measures have more influence than the US's on outputs, profits and labour productivity. Measures from the US and EU have little impact on foreign and state-owned-enterprise firm groups. Comparatively, foreign firms are affected more by antidumping from the EU. These results may occur because EU antidumping has wider scope and because there are fewer EU firms in China.

## Policy Implications

These results also indicate how overall Chinese industrial and firm groups' reactions to antidumping may occur, and in turn are relevant to the policy debate in China. Our results suggest that some Chinese firms have closed down and exited the market under the pressure of antidumping. When we compare the reaction of output and export, we can see that relocation may be happening since industrial output reacts much more than exports.

Firms may also choose to sell more in domestic markets or to export to other countries to avoid the impacts of antidumping. Unfortunately, we have no information to indicate whether producing something else is a common reaction, nor do we have data on whether firms fight actions.

Chinese industry and private firm group have seemingly been significantly hurt by antidumping, but exports are comparatively less affected which may imply trade diversion. From these results, Chinese industry and firms seemingly might not need to be too concerned about antidumping from abroad, but firm profit and return plus numbers of employees have been significantly affected. This means that firms have tried to maintain their exports by reducing costs and prices, even when their trade conditions have deteriorated.

We also show that state-owned-enterprises and foreign firm groups have been less impacted by antidumping measures and most of the industry reaction reflects private Chinese firms. This is because they are usually the main targets. Moreover, Chinese firm groups respond little to antidumping from developing countries. These results suggest that only the main trade partners' antidumping measures significantly influence the behaviour of Chinese industry and firms. Thus, responding to antidumping, China should perhaps pay more attention to EU and US measures.

## References

Bown, Chad P (2010), "The WTO dispute settlement system would survive without Doha", VoxEU.org, 19 June.

## About CAGE

Established in January 2010, CAGE is a research centre in the Department of Economics at the University of Warwick. Funded by the Economic and Social Research Council (ESRC), CAGE is carrying out a five-year programme of innovative research.

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