



The Great Trade Quantities Collapse

Gita Gopinath, Oleg Itskhoki, Brent Neiman, 28 July 2012

The sharp decline in trade values during the recent global recession has captured the attention of both policymakers and academics. This column presents recent research showing that, within differentiated sectors, the great collapse was one of trade quantities and not one of trade prices.

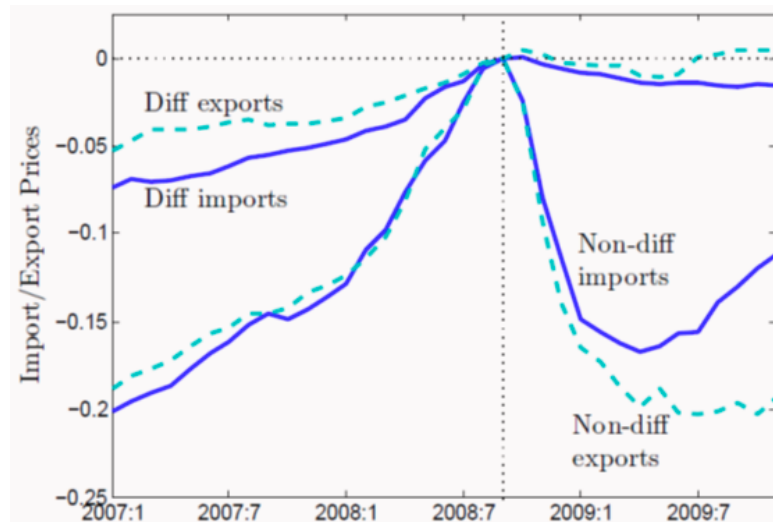
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One of the most unique and concerning features of the recent global recession was the sharp collapse in trade values (see Baldwin 2009). Researchers subsequently provided myriad hypotheses for the drivers of this disproportionate decline in trade relative to output and value added.¹ Many immediately concluded that a large price decline must be part of the collapse. And, indeed, for some categories of goods this was in fact the case. Levchenko et al. (2010), however, show that the share of reduced US import values due to prices drops from roughly one half to less than 20% if one excludes petroleum. Our analysis uses transaction-level data underlying the Bureau of Labor Statistics (BLS) import and export price indices to elaborate that while non-differentiated good prices dropped significantly, differentiated goods prices barely moved.

This dichotomy is highlighted in Figure 1 below, which plots the logarithm of import and export price indices that we separately calculate from differentiated and non-differentiated goods. Non-differentiated trade prices collapsed for both imports and exports, but remained essentially flat for differentiated sectors.

Figure 1. Trade Prices for Differentiated and Non-Differentiated Goods, 2007-2009



Further, though there was significant variation in the scale of quantity decline within differentiated sectors, this variation is not explained by variation in trade prices. One way to see this is to compare differentiated durable goods with differentiated non-durable goods because the decline in trade



Gita Gopinath

Professor of Economics, Harvard University



Oleg Itskhoki

Assistant Professor of Economics and International Affairs at Princeton University and the Woodrow Wilson School of Public and International Affairs, CEPR Research Affiliate



Brent Neiman

Associate Professor of Economics at University of Chicago Booth School of Business

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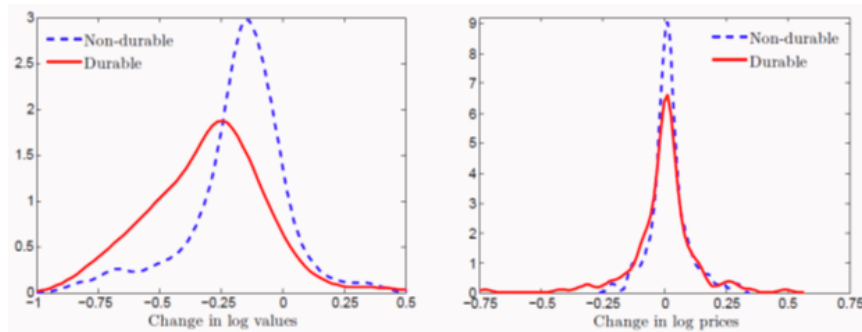
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values was particularly pronounced in durable manufacturing sectors.

Figure 2 below plots estimated kernel densities for the change in log trade values and the change in log trade prices of differentiated US imports and separates durables from non-durables. The price changes are measured from August 2008 to March 2009, while the trade values are taken from June 2008 to June 2009 to eliminate seasonality. The plot on the left shows the distributions of changes in log trade values. The solid red distribution captures durable sectors and its mass is clearly to the left of the non-durable distribution shown in the dashed blue line. Durable import values declined on average much more than non-durable import values in the differentiated sector.² The plot on the right does this same comparison for import prices, however, and shows that both distributions are centred tightly around zero and are almost on top of each other.³ The same point holds true for exports. The difference in differentiated sector trade values is not explained by the difference in trade prices.

Figure 2. Kernel densities of import adjustment in durable and non-durable differentiated sectors



Our finding does not support the notion that increases in the cost of manufacturing and shipping traded goods was a primary source of the trade collapse relative to production or value added, at least within differentiated goods. Explanations relying largely on increases in the cost of trade finance, for example, imply that sectors with larger reductions in trade values should, all else equal, have larger increases in price.

We further use the micro data to look at the mechanics of price adjustment and find that within differentiated goods sectors, there were minimal changes in pricing dynamics. The frequency of price increases declined slightly while the frequency of price decreases increased slightly. This produced a relatively muted increase in the overall frequency of price change. The BLS dataset is not particularly well suited to measure extensive margin adjustment, but consistent with the results in Haddad et al. (2010), we also find no evidence of important adjustment along the extensive margin.

The great trade collapse has led to an active literature aiming to match key moments of trade dynamics over the recent business cycle. We emphasise that an underappreciated feature that should also be targeted is that, within differentiated goods sectors, quantities dropped tremendously, but prices barely budged.

References

Amiti, Mary and David Weinstein (2010), "Exports and Financial Shocks", *Quarterly Journal of Economics*, 126(4).

Baldwin, Richard (2009), "[The Great Trade Collapse: Causes, Consequences and Prospects](#)", VoxEU.org, 27 November.

Chor, Davin and Kalina Manova (2011), "[Off the Cliff and Back: Credit Conditions and International Trade during the Global Financial Crisis](#)", *The Journal of International Economics*.

Eaton, Jonathan, Samuel Kortum, Brent Neiman, and John Romalis (2010), "[Trade and the Global Recession](#)", Working Paper.

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Haddad, Mona, Ann Harrison, and Catherine Hausman (2010), "Decomposing the Great Trade Collapse: Products, Prices, and Quantities in the 2008-2009 crisis", Working Paper.

Levchenko, Andrei, Logan Lewis, and Linda Tesar (2009). "The Collapse of International Trade During the 2008-2009 Crisis: In Search of the Smoking Gun", *IMF Economic Review*, 58(2).

¹ See, for example, Eaton et al. (2010), Amity and Weinstein (2010), Chor and Manova (2011), and Alessandria et al. (2010), as well as the shorter pieces in Baldwin (2009).

² The unweighted mean (median) decline in import values for 4-digit differentiated sectors is 42% (40%) for durables and 27% (23%) for non-durables.

³ We have excluded around 16 percent of sectors for durables and non-durables which exhibited no price change. Therefore, the peak at zero is not simply due to complete lack of price adjustment. Rather, it reflects small adjustments at the 4-digit level, which itself might be due to most, but not all, prices in a sector remaining unchanged.

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