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Its research allows policy-makers and business leaders to better understand the relationship between business growth and poverty reduction in the global South.

Trade crisis and recovery: restructuring of global value chains

William Milberg and Deborah Winkler

Abstract

Global value chains (GVCs) are international systems of production, typically governed by lead firms who coordinate elaborate networks of suppliers. The economic crisis has had a magnified effect on trade because of the prominence of GVC-based trade. This paper explores the role of GVCs in the 2009 global trade collapse and the prospects for world trade and its geographic distribution in light of the dynamics of GVCs. It outlines some policy conclusions for recovery strategies for developing countries

Keywords

global value chains, trade, global economic crisis, consolidation

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Acknowledgements

This is a synopsis of a longer working paper for the Capturing the Gains programme which was revised and published as Chapter 2 in Olivier Cattaneo *et al.* (eds.), *Global Value Chains in a Post-Crisis World: a Development Perspective* (pp. 23-72). Washington, DC: The World Bank, 2010.

> *"The globalisation of production has raised the traded share of output."*

Global value chains: global collapse in trade

Global value chains (GVCs) are international systems of production, typically governed by lead firms which coordinate elaborate networks of suppliers. This paper explores the role of GVCs in the 2009 trade collapse and the prospects for world trade in light of the dynamics of GVCs.

Leading up to the recent downturn, developed-country imports of goods and services were growing faster than output, since a significant amount of world trade occurs within GVCs. In 2008-2009 global imports declined more rapidly than at the beginning of the 1929 Great Depression.

Why did trade collapse so dramatically?

The global crisis affected trade more severely than GDP, as in a global downturn the fall in demand for goods is greater than that for services. Goods represent the bulk of trade flows, while services make up the bulk of GDP.

Historically, trade flows are pro-cyclical and more exaggerated than changes in GDP. In recent global economic downturns, declines in the volume of world trade have been proportionally greater than changes in GDP (Freund, 2009). Also, when the GDP–trade relation is symmetric, the rebound in trade is greater than the rebound in GDP and the pace of trade recovery is as fast as was the decline in trade.

GVCs intensify trade and production cycles

The globalisation of production has raised the traded share of output. A rise in GDP may stimulate a rise in offshoring and a rise in measured trade (Freund, 2009). With greater vertical specialisation in production, the import content of exports has also risen.

Thus, a decline in final demand reduces trade in both final and intermediate goods and services. For example: '[T]he drop in US imports for computers and cell phones leads indirectly to a drop in US exports of semiconductors and components' (Ferrantino and Larsen, 2009: 177). Such fragmentation contributes to a rising trade propensity and to a rising incremental import–GDP ratio.

Lead firms with declining profits seek drastic means to cut costs, so may substitute cheaper foreign inputs for domestic inputs. Thus US auto companies adjust to their unprofitable position by increasing offshoring, especially from Mexico (Scott, 2009). This is exacerbated by the heightened uncertainty of future demand after the crisis. This may encourage firms to further externalise their sourcing to increase their flexibility in case of future demand stagnation or volatility.

The large declines in the volume of trade in the crisis so far indicate clearly that the demand effect has swamped the substitution effect. The rise in trade elasticities is due to the prominence of

“The downturn is creating market share winners and losers.”

GVCs, rather than to increased openness *per se*. Lead firms in GVCs adjust quickly to changes in market demand and seek to shift the burden of risks associated with declines in demand onto supplier firms.

In addition, credit market problems bring a negative international ‘cascade effect’ through GVCs. The denial of credit to importers in one country can lead to credit problems for sellers in others, in turn affecting their ability to import. The freezing up of trade credit dampens the volume of international trade more when such trade is organised in GVCs. ‘[W]ith their own access to finance drying up, global buyers will become more restrictive in providing finance along their supply chains’ (ICC 2009:4).

Consolidation of GVCs

Vertical consolidation is a reduction in the number of tiers of suppliers. Horizontal consolidation is a reduction in the number of suppliers in a particular tier of the GVC.

Vertical consolidation is driven by a shrinking of market size, reducing the rationale for the existing number of tiers of suppliers. Horizontal consolidation occurs in a downturn as marginal suppliers are squeezed out with the decline in demand. This might be more likely in buyer-driven GVCs, where supplier contracts are shorter and lead firm commitments to, and technology sharing with, supplier firms are less. Lead firms are more likely to maintain suppliers with whom they have already invested in technology or capital or cooperation.

How reversible are these processes? Will a rebound in demand generate a reversal of consolidation? Focusing on horizontal consolidation, the answer hinges on the possibility of surviving suppliers expanding capacity and capturing scale economies, creating new entry barriers for firms that did not survive the downturn.

The duration of the economic downturn and speed of the recovery potentially allow surviving suppliers to expand productive capacity and further capture scale economies and also develop new production capabilities. Meanwhile, suppliers forced to shut down during the slump face considerable fixed costs in re-opening, and thus may be at a further disadvantage, even when demand recovers.

The hypothesis emerges that buyer-led chains will experience the most consolidation, and producer-led chains the least. The number of product areas that experienced diversification is almost equal to the number of those which experienced consolidation. We find that consolidation occurs more often in consumption goods, where buyer-led chains are more pervasive. Diversification occurs more often in intermediates, which are more likely to be producer-led chains.

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This is consistent with the fact that China is gaining in US import markets, while smaller East Asian nations are losing US market share. Countries losing market share include high-cost producers (e.g. Italy in the handbag market) and low-cost, especially East Asian producers (e.g. Cambodia in apparel, Thailand in rubber products and plumbing and heating fixtures, and Malaysia in telecommunications).

The downturn is creating market share winners and losers. China's continued success in exports to the US, aided by the adjustable dollar peg, is taking a toll on exporters in both high-cost and low-cost markets, the latter especially among smaller East Asian countries.

What does this mean for policy?

Three policy conclusions emerge:

- Declines in exports translate into declines in foreign exchange reserves. The provision of $250 billion in trade credit by the G-20 is a useful stopgap measure. The IMF's expanded resources should also be tapped quickly and with reduced conditionality.
- Countries need to find non-export sources of demand, or diversify trade patterns towards South-South trade. One source is expansionary fiscal policy – for example, China's large stimulus package. But China's success highlights the difficulty of drawing general conclusions about the possibilities for stimulus elsewhere. Capacity for stimulus depends largely on the prior accumulation of foreign exchange reserves – which, for most developing countries, are very small. Secondly, data for 2009 indicate a strong increase in South-South trade, suggesting a potentially promising source of demand growth in the future.
- During the downturn, developed country (i.e. lead) firms in GVCs depend on imports for inputs and profitability. Yet, there remains popular sentiment for protectionism in developed countries. Resisting it will be crucial for developing countries as the world economy recovers from the crisis.

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