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Economic Letter

Insights from the
FEDERAL RESERVE BANK OF DALLAS

*The recession's heavy
toll on world trade
raises the possibility
of deglobalization.*

Trade, Globalization and the Financial Crisis

by Mark A. Wynne and Erasmus K. Kersting

The financial crisis that began in August 2007 and intensified in the fall of 2008 pushed the global economy into a severe downturn that some have called the Great Recession. World trade collapsed at a pace unseen since the Great Depression of the 1930s. The decline in trade and the protectionist instincts that invariably come to the fore in difficult economic times have raised concerns that today's crisis may lead to deglobalization—a reversal of the globalization that has characterized the past three decades.

In this *Economic Letter*, we will illustrate the crisis' impact on world trade and examine the typical patterns of international trade over the business cycle. We urge caution in using trade data to estimate the extent of globalization or deglobalization. And we present evidence that international trade has fallen by more than expected given the course of the current business cycle.



This raises the question of what might have accounted for the excess decline. We look at two possibilities: first, a direct effect on trade flows associated with a drying up of trade finance at the height of the crisis; second, a breakout of protectionist measures. We conclude that trade finance is the most likely explanation. However, it's vitally important to remain vigilant to the risks of protectionism. The Great Depression of the 1930s would have been less severe had countries not resorted to ultimately self-defeating protectionist measures.

International Trade Collapses

According to the October 2009 edition of the International Monetary Fund's *World Economic Outlook*, international trade as measured by total exports of goods and services will decline 11.9 percent this year. Advanced economies' exports will fall 13.6 percent, while emerging and developing economies face a more modest 7.2 percent slump (*Chart 1*). Declines of these magnitudes are

unprecedented. During the recession of 2001, for example, global trade increased 0.3 percent, largely due to continued export growth in the emerging market economies.

One measure, based on work by the economic historians Barry Eichengreen and Kevin O'Rourke, suggests that declines in international trade have exceeded the losses during the 1930s. Indexing to the peaks in global industrial production in both episodes, global trade fell 32 percent during the first year of the Great Recession, compared with 15 percent during the first year of the Great Depression (*Chart 2*). Of course, trade continued to ebb for years in the 1930s, an unlikely prospect this time around given the recent improvements in the world economy.

The collapse of world trade has manifested itself in shipping costs. While we don't have a comprehensive measure of how much it costs to ship goods around the world, two closely watched indexes capture significant segments of the market.

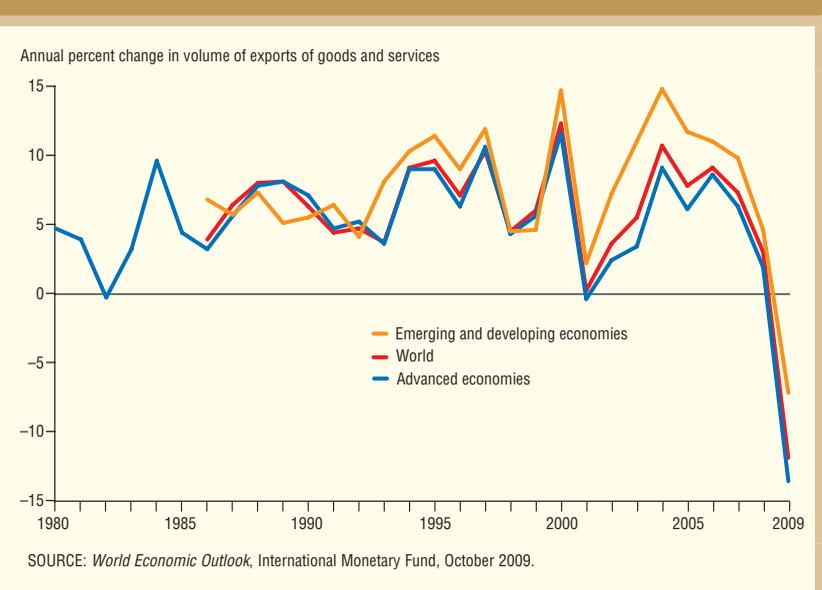
The Baltic Dry Index tells us what is going on with dry bulk commodities, such as coal, iron ore and grain. After peaking at 11,793 on May 20, 2008, the index collapsed to 663 on Dec. 5, then posted gradual improvements over the course of this year. The Harpex index, produced on a weekly basis by the shipbroking firm Harper Petersen, measures the cost of shipping containers. It dropped 76 percent between February 2008 and June 2009.

Of course, the U.S. hasn't been immune to these developments (*Chart 3*). U.S. import volume peaked in the third quarter of 2007, when the financial crisis began. Export volume continued to rise until the second quarter of 2008, when the crisis went global.

So what, if anything, do these data tell us about the fate of globalization? Has globalization gone into reverse? To address this question, we consider two issues. The first centers on the normal behavior of international trade flows

Declines in international trade have exceeded the losses during the 1930s.

Chart 1
Global Trade Falls in Financial Crisis





over the business cycle. Are imports and exports more volatile than overall economic activity, or less volatile? The second involves the usefulness of trade flows to measure globalization. Does more international trade always mean more globalization?

Considering Deglobalization

Two points are noteworthy once we isolate U.S. business-cycle ups and downs from the economy's long-run growth. First, exports and imports tend to move in the same direction as GDP—that is, they're procyclical (*Chart 4*). Second, exports and imports are more volatile than the overall economy.

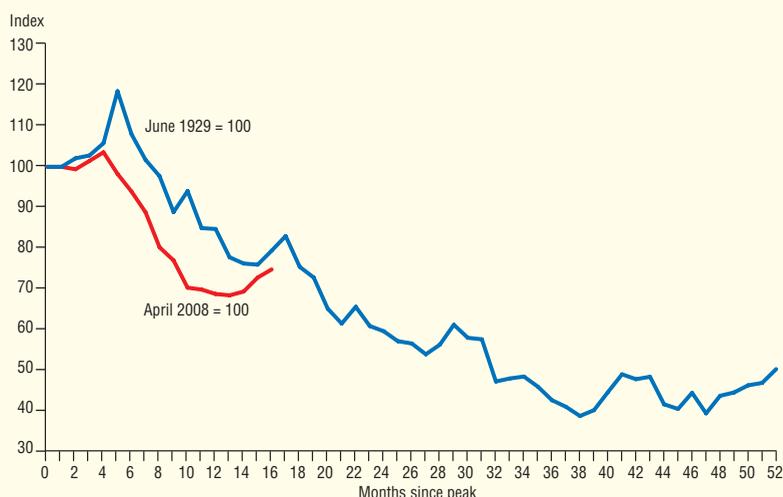
The scatter of points in *Chart 4A* plots the cyclical component of U.S. exports each quarter against the cyclical component of U.S. GDP. Note that the line fitted to the scatter is steeper than the 45-degree line. That is, when the cyclical component of GDP declines by a given amount, the cyclical component of exports tends to decline by more. Likewise, when the cyclical component of GDP increases by a given amount, the cyclical component of exports tends to increase by more. A similar pattern is seen in the scatter for the cyclical component of U.S. imports and GDP in *Chart 4B*.

GDP's cyclical movements range between -5 percent and 5 percent, well below the low of -15 and high of 15 percent for both exports and imports. The average volatility of GDP (standard deviation) is about 1.7 percent, compared with 5.6 percent for exports and 5.2 percent for imports.

Why are trade flows so much more volatile than the overall economy? Part of the reason may be that trade is still heavily skewed toward goods rather than services. Measured by value, goods make up 70 percent of U.S. exports and 84 percent of imports. By comparison, goods account for only a fifth of overall U.S. production, measured as a share of value added. Using a broader defini-

Chart 2

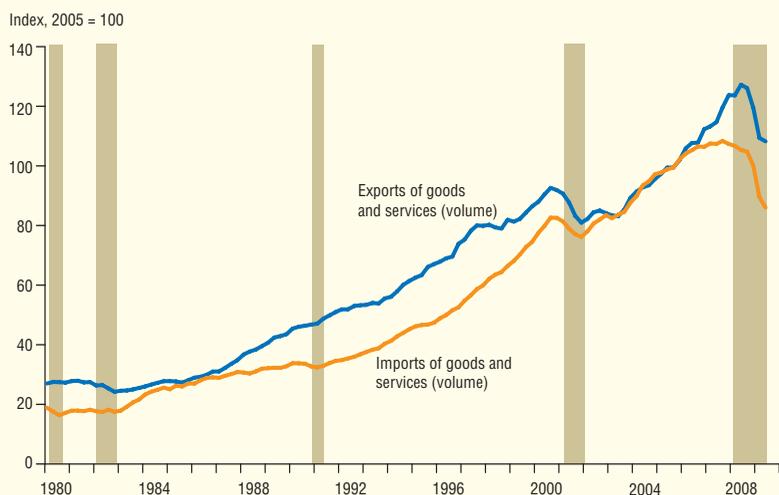
Trade Losses: Great Depression Vs. Great Recession



SOURCE: Authors' calculations following "A Tale of Two Depressions," by Barry Eichengreen and Kevin O'Rourke, VoxEU.org, September 2009, <http://www.voxeu.org/index.php?q=node/3421>.

Chart 3

U.S. Trade Tails Off, Too



NOTE: Shaded areas represent U.S. recessions.

SOURCE: Bureau of Economic Analysis.



tion—the sum of agriculture, mining, construction and manufacturing—raises goods’ share of the economy, but only to 30 percent.

Because trade flows depend heavily on the volatile goods sector, they tend to increase more in good times and decline more in bad times than the rest of the economy. If that’s so, it shouldn’t come as a great surprise that trade flows have dried up in the midst of a severe global recession. Far from telling us about incipient deglobalization, the decline in trade may simply be a cyclical phenomenon.

There are other reasons to be skeptical of what trade flows can tell us about globalization. To economists, globalization is about the integration of national economies into a single global market. While imports and exports may be symptomatic of such integration, they’re not synonymous with it. Economists generally favor another measure—how close domestic prices are to the ones prevailing on world markets.

One can illustrate this point with a simple supply and demand picture for some hypothetical good traded internationally (*Chart 5A*). Assume a world price at which we can buy as much as we want—thus, the supply curve is flat. How much we purchase will be determined by the domestic demand for imports of this good, the downward slope indicating we’ll buy more as it gets cheaper.

Transportation costs, barriers to trade and other factors create a gap between the domestic and world prices. The size of this distortion will determine just how much of the good we import and consume. Improvements in transport and communications technology and more liberal trade policies will reduce the difference between the home and world prices (*Chart 5B*). As domestic prices fall, trade will increase. This is what we mean by globalization.

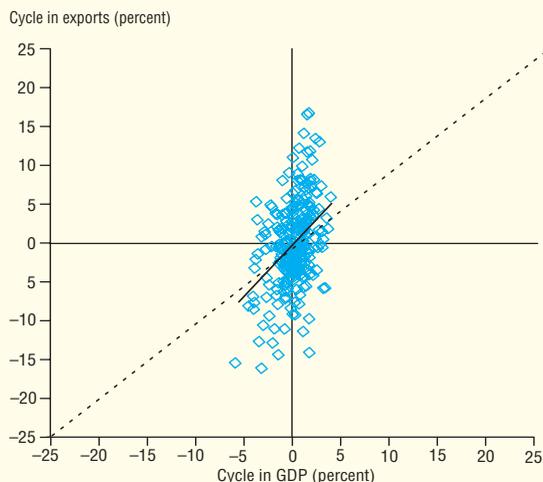
But note that trade volumes can change without markets becoming more integrated. For example, a

A global recession that reduced import demand will lead to declines in trade—but it needn’t signify a reversal of economic integration.

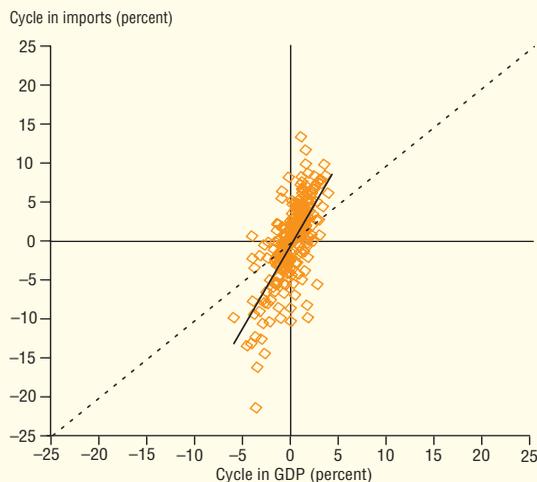
Chart 4

Business Cycle Volatility Is Greater for Trade Flows

A. Exports



B. Imports



SOURCE: Authors’ calculations using data from Bureau of Economic Analysis.



domestic boom that made us willing to import more at every price would cause demand to shift rightward (*Chart 5C*). The volume of trade would increase, but we've had no real gain in economic integration, properly defined. That is, prices didn't fall.

The same thing can take place in reverse. A global recession that reduced import demand will lead to declines in trade—but it needn't signify a reversal of economic integration. And that, arguably, is what happened last fall and through the first half of this year.

The financial crisis had its epicenter in the U.S. housing market, and it was largely confined to slowing growth prospects in the North Atlantic region of the U.S., Canada and Europe for most of 2007 and 2008. During the crisis' early stages, there was some belief that emerging market economies would be largely immune—the so-called decoupling hypothesis. When things worsened after September 2008, the advanced economies' dramatic deterioration caused demand for emerging economies' exports to drop. The crisis became truly global.

“Excess” Trade Declines

The financial media carried a series of stories in the fall of 2008 about the drying up of trade finance and its detrimental effect on trade flows, suggesting the financial crisis may have had a direct impact on trade flows, over and above the effect from declining economic activity.

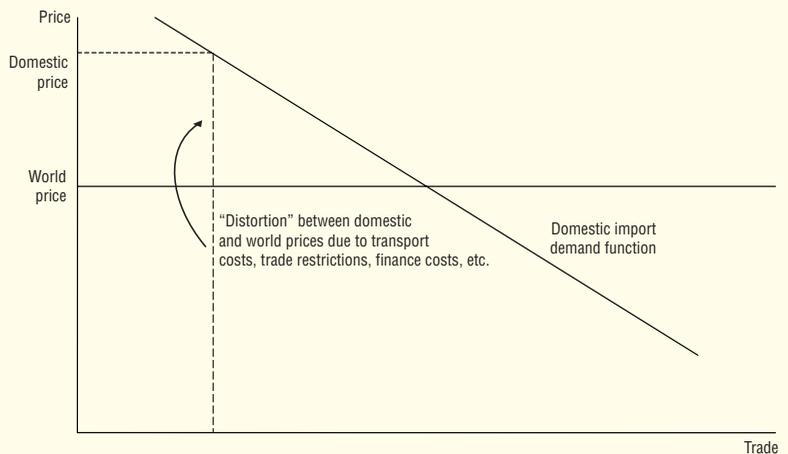
Of course, determining cause and effect is a tricky business. With trade flows contracting along with economic activity, some decline in trade financing should be expected. What we might want to look at is evidence of a decline in trade beyond what we might have expected based on economic fundamentals.

Two factors come immediately to mind as drivers of U.S. import demand over the long run—our level of income (the better off we are, the more we want to consume, including imports) and the value of the dollar

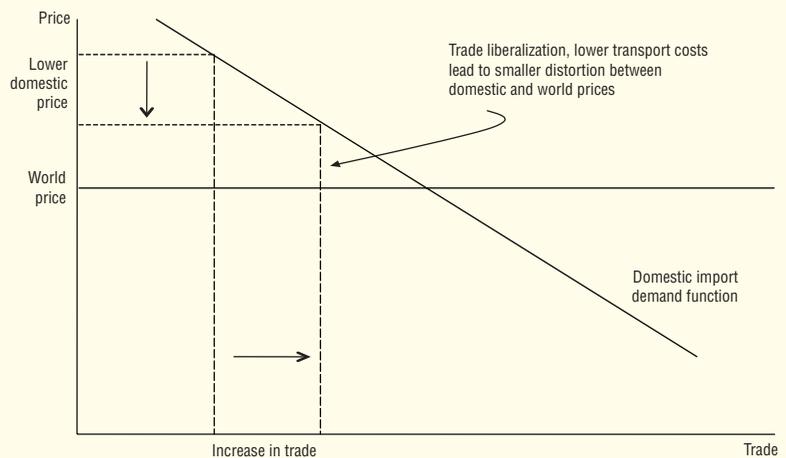
Chart 5

How Prices Measure Globalization

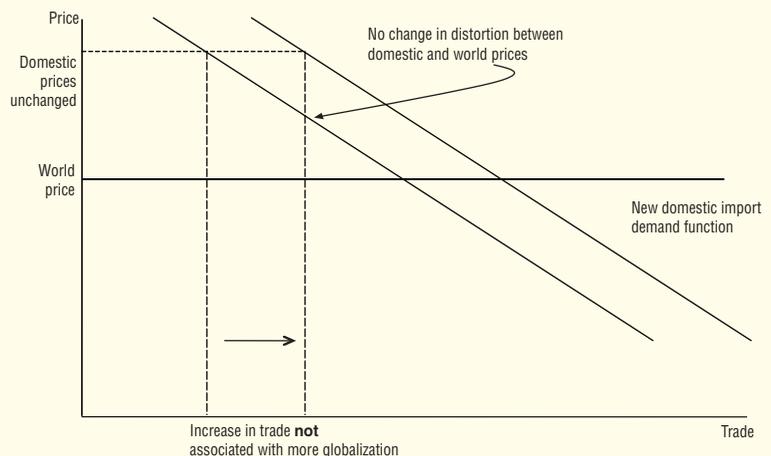
A. The Gap Between Domestic and World Prices...



B. ...Declines as Economies Globalize and Increase Trade...



C. ...But Trade Can Rise for Other Reasons



(the cheaper foreign goods and services are, the more we buy). If we put these variables into a simple model, they do a reasonable job of explaining quarter-to-quarter fluctuations in U.S. imports.

Or at least they did until last fall. As the financial crisis unfolded, U.S.

imports fell by more than could be justified by the changes in the fundamentals (*Chart 6A*). We see a similar situation with U.S. exports, using foreign income and the value of the dollar as the fundamental drivers of export growth in a statistical model (*Chart 6B*).

While statistical models often break down, this particular failure occurred in the midst of the global financial system's greatest crisis since the Great Depression. Given all the anecdotal evidence, it seems reasonable to conclude that the drying up of trade finance might have played an additional role in depressing international trade.

So what exactly is trade finance? The broadest definition includes every kind of loan, insurance policy or guarantee directly tied to international transactions—anything from the direct credit extended by exporters to government-backed guarantees issued by official export credit agencies. Other institutions involved in trade finance are commercial banks, multilateral development banks and private insurers.

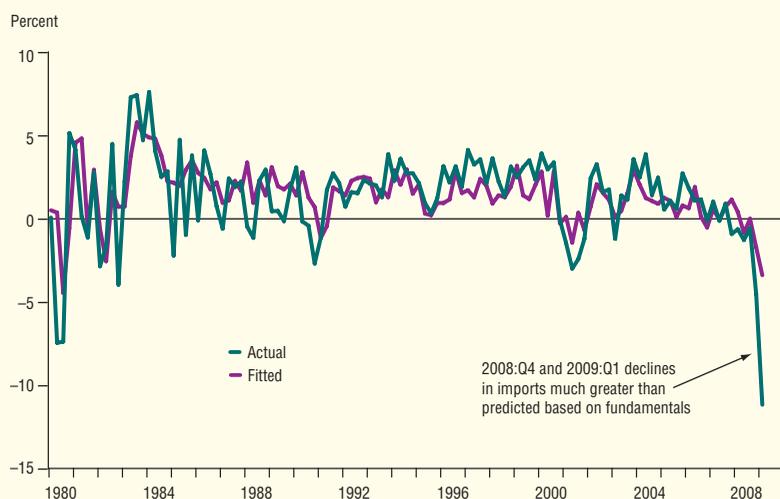
What can we say quantitatively about the financial crisis' impact on the availability of trade finance? Surprisingly little, it turns out. Hard numbers are difficult to obtain. No data series gives us a complete picture of the overall amount of finance supporting international trade, probably because of the number and heterogeneity of parties involved.

A sliver of the trade finance picture is available in data on assets and liabilities categorized as traditional trade credit, extended by nonfinancial firms to their foreign customers. The series reports the difference between underlying transactions in goods and services and payments related to those transactions. The data represent net flows, which means they track changes, not the amount of inflows and outflows themselves.

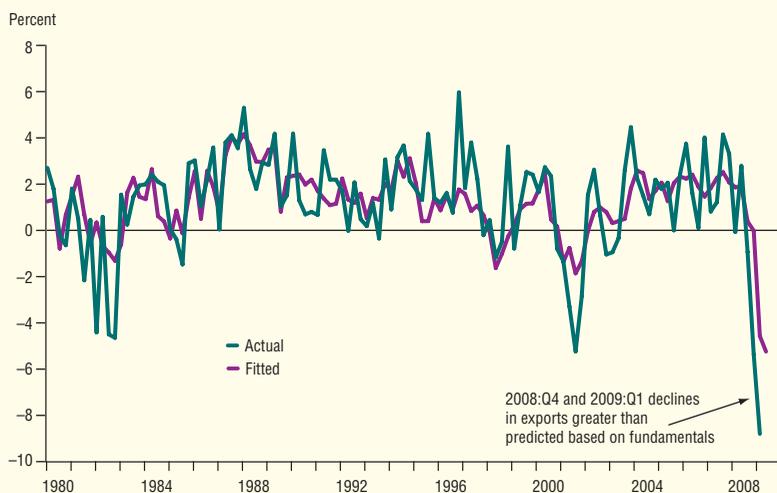
The trade credit data include both short-term and long-term categories. Loans to finance trade fall into a different category, and it isn't possible to distinguish loans specifically used to finance trade. In that sense, changes in trade credit positions serve as a *lower bound* for the total amount of trade finance. The series on liabilities represents the amount of trade credit

Chart 6
Recent Trade Declines Exceed Historical Norms

A. Imports



B. Exports



SOURCE: Authors' calculations.



foreign countries extend to firms in a specific country.

In 2008, the U.S., Japan and Germany saw record declines in trade credit liabilities (*Chart 7A*). The steep drops aren't surprising given the scale of the recent crisis. A flight to safety by investors, banks and firms will result in reduced exposure to countries considered relatively risky. Note that credit availability seems to have improved dramatically as the financial crisis eased in 2009.

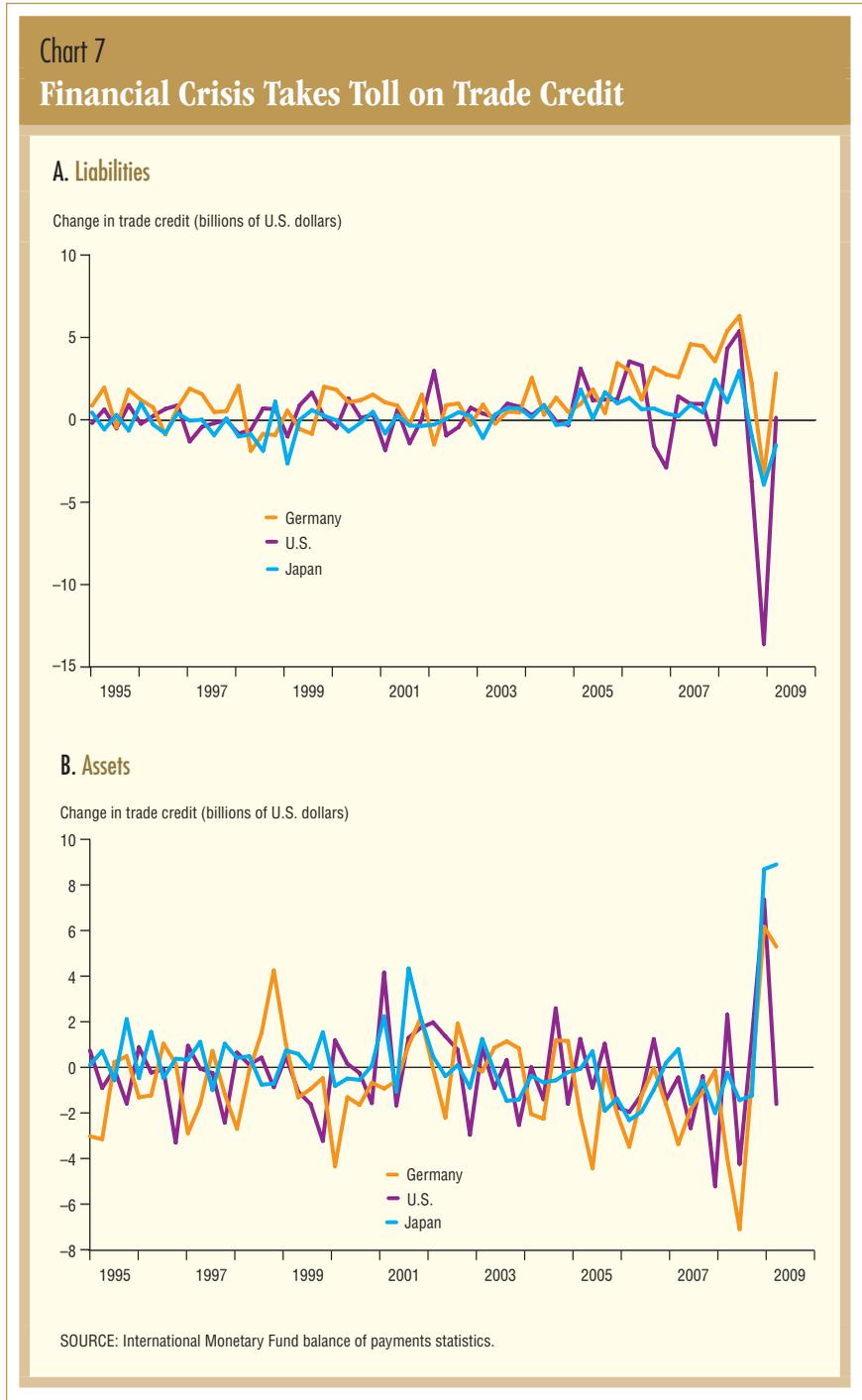
Tightening credit meant exporting companies faced buyers that were more severely credit-constrained. We would expect these firms to extend more short-term trade credit to compensate for the lack of commercial financing for potential buyers. Data on the net change in trade credit extended show jumps in exposure for Japanese and U.S. firms through the fourth quarter of 2008 and for German firms through the first quarter of 2009 (*Chart 7B*).

The data suggest that exporting firms stepped in and granted credit as the financial crisis pinched other sources of trade finance. The nature of the recession matters. The downturn in 2001 didn't lead to dramatic changes in the amount of short-term trade credit extended, whereas the current crisis has changed financing conditions sufficiently to cause a noticeable shift in exporting firms' behavior.

Protectionism?

The apparent importance of finance in the trade collapse suggests, but doesn't prove, that concerns about increased protectionism are overblown. Protectionism today is more subtle than in the past, coming more frequently in the guise of nontariff barriers rather than formal tariffs. One commonly resorted to protectionist measure is antidumping actions—and they give us a snapshot of protectionism in the past few years.

In the second half of 2008, the World Trade Organization found a 17 percent increase in the number



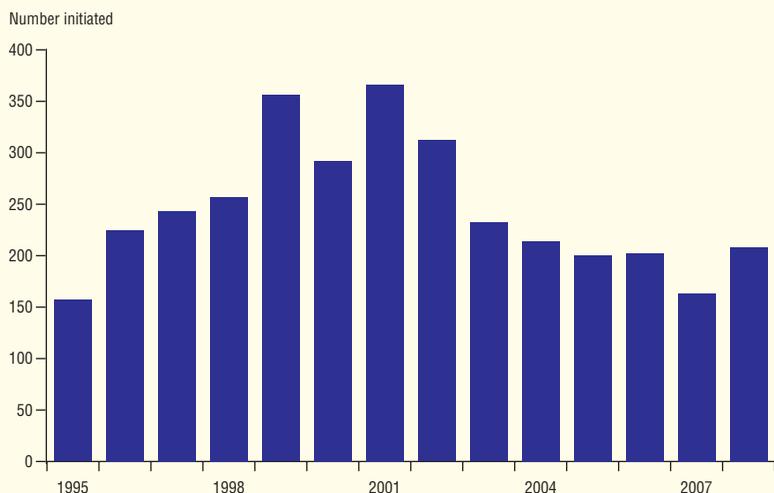
of new antidumping investigations, compared with the same period in 2007. However, these numbers are still well within the experience of the past decade and well short of the peaks seen in the 2001 recession (*Chart 8*).

While some protectionist measures have been introduced, they

haven't approached what the world experienced in the 1930s. That's due in no small part to the lessons of the Great Depression. But the scale of the current crisis and the likelihood of a sluggish recovery suggest the need for ongoing vigilance against protectionist measures.

Chart 8

Antidumping Investigations Remain Low



SOURCE: World Trade Organization press release no. 556, May 7, 2009.

Deglobalizing or Not?

In the past year, global trade collapsed at a pace not seen since the Great Depression, raising concerns that the globalization of the past three decades was going into reverse. To a large extent, however, the scale of the financial crisis and its impact on incomes around the world can account for the falloff in international trade.

For the U.S., the drying up of trade finance may be responsible for trade flows declining by more than fundamentals warrant. We're still a long way from having a good understanding of the vital role trade financ-

ing plays in lubricating the wheels of international commerce.

From this perspective, concerns about deglobalization are in many ways overblown. Trade growth is a necessary but not sufficient condition for globalization. Declining trade is likewise a necessary but not sufficient condition for deglobalization.

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