

Global imbalances: are we measuring the right thing?

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As the debate over global imbalances develops, this column asks whether the discussion is based on faulty data. Using data from the US, Japan, Germany, and the Czech Republic, it argues that not taking due account of foreign affiliate sales leads to a warped view of trade in goods and services.

The debate over global imbalances rages on (Claessens et al. 2010, Suominen 2010). But could the debate be based on faulty data and missing the real problems?

Are trade flows in goods and services mismeasured?

As integration of the global economy deepens, it is widely recognised that traditional cross-border trade statistics do not fully capture all of the forms of trade involved. In the services sector, this is acknowledged to be the case for commercial presence service activities, such as banking services provided by a US-owned bank in a foreign country to residents of that country. It can also be the case for goods-related activities. For example, McDonalds may sell hamburgers in Germany using German meat and buns, but it uses US knowhow, branding, and organisation.

In recent years, some international organisations such as the WTO and the IMF and developed countries such as the US and Japan have begun to focus on foreign affiliate service activities. They regularly collect and issue service-related statistics capturing these activities called foreign affiliate trade statistics (FATS). The FATS makes it possible to obtain a reasonably accurate picture of the commercial presence component of trade in services. But one can argue that trade in goods should also include a portion of foreign affiliate sales (FAS), as it also forms a part of goods trade similar to that of commercial presence in services. It would therefore seem to be that accounting for commercial presence in services data but excluding it from goods trade only reflects the difference between the GATT (1994) for goods and the GATS for services, rather than any meaningful economic logic.

Adjusting measures of trade flows

If our argument is accepted, FAS should either be partially included in goods trade to achieve consistency across the separate sets of goods and services trade data or alternatively removed from services trade data.

Some countries' services trade data (most notably US, Japan, and Germany) already include both deliveries of services across borders and sales by foreign affiliates from commercial presence. And data on FAS in goods is available from information on foreign affiliate activity from an OECD database. For consistent accounting and comparison of goods and service trade, either commercial

presence should be accounted for in goods trade data or services data should have it removed.

We have used data for a subset of countries (US, Japan, Germany, Finland, and the Czech Republic) to produce initial estimates of more consistent goods and services trade data. For these countries, the underlying information needed is available for their cross-border trade in both services and FAS, while for others it is not, but we report more consistent data. In addition, we are able to use these data to assess how perceptions of the role and size of trade in the world economy might be affected by such adjustments. We focus on the size of country total trade in goods and services, the growth rate of trade, trade imbalances and the relative size of trade in goods and services.

What do the adjustments to trade data suggest?

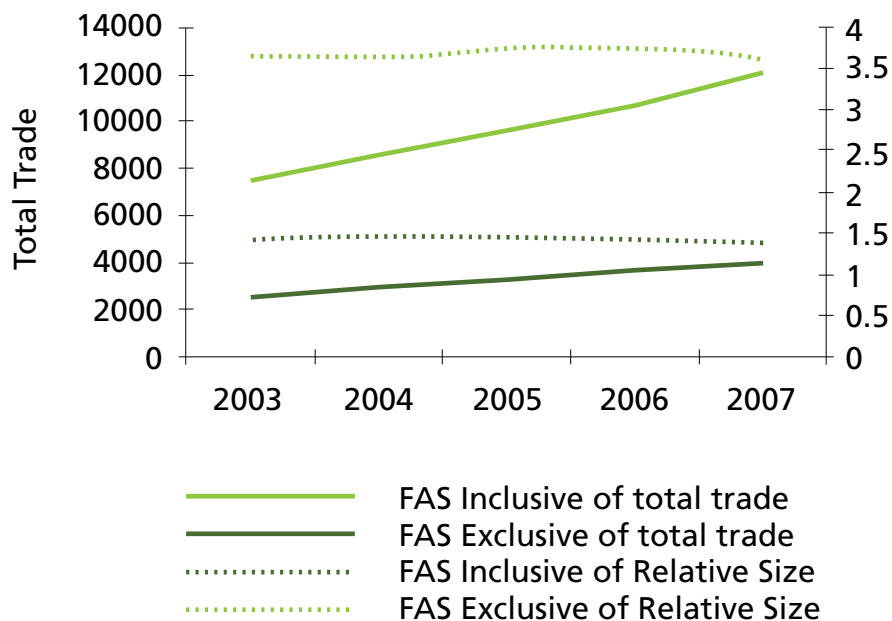
Several striking features emerge from our adjustments.

- First, total trade in goods and services by country changes substantially if we use different statistical bases. For the US, if we take sales as foreign affiliate sales (FAS), total trade inclusive of FAS is nearly 3 times that on a FAS-exclusive value. If we use value added and profit as FAS, FAS-inclusive total trade is nearly 1.5 times as large. This reflects the size of US multinational activity abroad which can substitute for exports.
- Japan, Germany, Finland and Czech Republic also have large numbers for FAS and thus experience similar effects on measures of their trade. Their FAS-inclusive value of total trade is more than twice the size of FAS-exclusive trade if we use sales as FAS. In Finland's case, for example, FAS reflects foreign investment by metal, forest, and electronic industries (of which NOKIA is a key element). These calculations thus suggest that FAS in goods are potentially a large part of total trade, and trade itself globally may be much larger than currently thought.
- We also find that measures of annual growth rates of total trade in goods and services in different countries under different statistical bases may all be higher than a GATT/GATS basis would suggest.
- The relative size of trade in goods and services changes a lot under different bases for each of the countries we consider.

These features of the recalculated goods and services trade data all reflect the deepening international division of labour which has prompted US and other OECD firms to invest and operate abroad in recent years. The Japanese, German and Finnish average trade balance from 2003 to 2007 increases respectively by more than 20 times, 4.8 times and 11.9 times when we add FAS to cross-border trade since these three countries have large foreign direct investments and large foreign affiliate sales. The Czech Republic is a special case since its average trade balance is a surplus of \$2.2 billion on a FAS-exclusive basis, but after adding FAS the trade situation changes to a deficit of -\$150.6 billion if we use sales as FAS. The reason is the substantial inflow of foreign investment into the Czech Republic from 2000 following its accession to the EU.

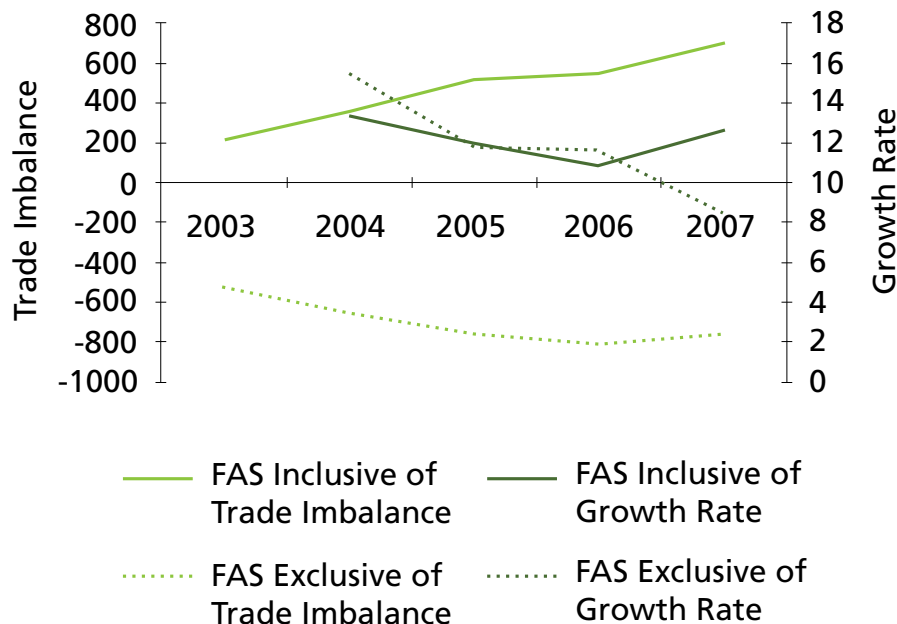
In Figures 1 and 2, we take the US as an example to show the trade data differences between FSA-inclusive and FSA-exclusive cases.

Figure 1. US total trade and relative size of trade in goods and services with FAS



Sources: Cross-border goods trade data come from UN database; Cross-border service trade data come from OECD database; Affiliate sales data collected and calculated from OECD database; Exchange rates come from foreign exchange average converter.

Figure 2. US trade imbalance and total trade growth rate with including and excluding FAS



Sources: Cross-border goods trade data come from UN database; Cross-border service trade data come from OECD database; Affiliate sales data collected and calculated from OECD database; Exchange rates come from foreign exchange average converter.

What about global imbalances?

This statistical issue is far from trivial. The ongoing global trade imbalances and the surrounding debate are directly affected. Many of the G20 countries including the US, China, and Japan, seek to reduce trade imbalances, but if we take account of the FAS, the imbalance situation changes sharply. Presently measured global imbalances in cross-border trade may thus misrepresent the real situation and raises the issue of whether global G20 efforts are only stabilising inaccurate statistics, not the real global economy. According to our calculations, the US may actually have a trade surplus or a small deficit and Japan, Germany and Finland may have much larger trade surpluses than at present. It may thus be useful for G20 countries to be aware of these measurement issues.

The pace of change in global trade over the last few decades has been unprecedented and few would expect this trend to reverse or even slow down. Our findings show that the statistical recording of international trade needs to respond.

References

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Suominen, Kati (2010), "Did global imbalances cause the crisis", VoxEU.org, 14 June.

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