How can we measure an economy’s competitiveness?

This issue is often reduced to the measurement of an economy’s external competitiveness or the capacity of exporting companies to sell their products abroad. From this perspective, one of the most commonly used indicators is the trend in a country’s share of world exports. For example, growth in market share over five years is one of the indicators taken into account in the European Commission’s Macroeconomic Imbalances Procedure. The traditional diagnosis, based on this indicator, is that rich countries have been steadily losing market share in favour of emerging countries, particularly China, since 2001 (see Chart 1). Nonetheless, Spain has managed to conserve its market share, and Germany has recorded only a limited decline, particularly in the first half of the 2000s.

These analyses of market share generally rely on gross export data, which have two major drawbacks: they do not take into account: (i) the import content of exports, which makes it possible to measure the domestically produced value added embodied in a country’s exports (we shall use the term “measured in value added” for the rest of this document); and (ii) the domestic market, which is generally the main market for national businesses, in which they face competition from foreign companies.

This study proposes an indicator of global market share which overcomes these two limitations. We use trade in value added data calculated using the World Input-Output Database (WIOD) to study the evolution in the market shares of the main exporting countries over the period 1995-2011. These data make it possible to distinguish the value added of the various domestic sectors from the imported foreign value added embedded in output and exports. We focus on the manufacturing industry, including activities outsourced by manufacturers to service companies.1

1 For an analysis of total exports, see Cezar, Duguet, Gaulier and Vicard (2016).
Exports contain an increasing proportion of imported inputs…

With the integration of most countries into international production chains, which fragments production between different countries, export companies are using a growing proportion of imported input in their production and exports. Between 1995 and 2011, the share of domestic value added in world exports decreased from 82% to 74%. However, this trend is not the same for all countries. The foreign value added content in total exports has risen faster in Germany (+50%), France (+43%), Italy (+43%) and Japan (+128%) than in the United States (+20%) and the United Kingdom (+10%).

Chart 1a shows the change in manufacturing market shares calculated in value added terms. Chart 1b shows that the ratios of gross market share to value added market share in manufacturing exports remained relatively stable over the period. However, with the exception of the United States, the United Kingdom and China, trends in export performances measured in value added were generally less positive than when measured in gross terms, particularly in the case of France and Germany. Overall, therefore, the switch to value added data does not fundamentally alter the conventional analysis of manufacturing export market shares based on gross statistics.

… and of services

World input-output tables make it possible not only to distinguish between the domestic and foreign value added content in production, but also to take into account output destined for the domestic market, which is generally national companies’ main market. Using the breakdown of value added linked to international production chains proposed by Timmer et al. (2013), we calculate our indicator of global market share as the share of each country in the total value added produced to satisfy global manufacturing final demand (foreign and domestic; see methodological appendix in Cezar et al., 2016). This market share is based on manufacturing final consumption and therefore includes all activities involved in the production process, regardless of whether the value added comes from the manufacturing sector itself (direct value added) or from the services used in the production process (indirect value added). These activities account for a higher share of GDP than manufacturing activities alone, and notably include tasks outsourced by manufacturers to service firms.

In 2011, income from production for manufacturing final demand remained high, as a percentage of GDP, in China, Germany and, to a lesser degree, Italy (see the table). It was lower in Japan, France, Spain, the United Kingdom and the United States.
In advanced countries, a high proportion of this value added originated from services firms – up to 54% of total value added in France, compared with 26% in China – underscoring the important contribution made by this sector to the production process, and the fact that advanced economies are becoming increasingly specialised in services.

Measured in current dollars, the value added related to the production of manufacturing final demand has increased in all countries, with the exception of Japan. However, the pace of growth has remained lower than that of GDP resulting in a decline in its weight in GDP between 1995 and 2011 (columns 1 and 2 in the table) in all countries except Germany. Income from production of manufacturing final demand rose at a similar pace in both France and Germany in current dollars; however, measured as a share of GDP it remained stable in Germany, but declined in France, falling from 20% of GDP in 1995 to 16% in 2011, due to stronger growth in French GDP over the period. The inclusion of activities outsourced by manufacturers to service companies in part explains why the decline in value added produced to meet final manufacturing demand has been moderate.

The share of value added generated by domestic service sectors has systematically increased at a faster pace than that generated by manufacturing sectors (columns 5 and 6 in the table). However, this trend is not uniform in all countries: France, for example, has seen a stronger shift in favour of services than Germany. Thus, based on manufacturing value added alone, Germany recorded stronger revenue growth than France over the period 1995 to 2011, but a similar pace of growth when all domestic activities are taken into account.

When the domestic market is taken into account, the performances of the major European countries are more in line

For the period 1995-2011, taking the domestic market into account alters the traditional diagnosis of trends in market share (i.e. based on export data alone) for Japan, Germany and Spain, with all three countries experiencing a faster decline in their respective global market share (see Chart 2). Despite the deterioration, Spain still performed better than the other major exporting countries. Japan, meanwhile, saw a particularly sharp decline, with its market share dropping by half. Germany’s performance was more in line with that of the other major European countries, whose market shares diminished at an average pace of 2%-3% per year. Indeed, its performance is similar to that of France: both countries outperformed the United Kingdom, but underperformed Italy and the United States. Within the EU, therefore, production for manufacturing final demand is not becoming more concentrated. The results suggest that productive activities exposed to international competition are not tending to become polarised within the EU, contrary to what can be observed in the gross export data.²

² For the period 2000-2007, which was marked by an appreciation of the euro, all euro area countries recorded an increase in market share in value added terms, and only Spain outperformed Germany. Regardless of the period under consideration, the divergences between the main European countries remain relatively small.
Trade performance and trends in demand in domestic and export markets

In Cezar et al. (2016) we propose a breakdown of the indicator of global market share in value added. The first term of this breakdown, which represents the activities that serve the country’s domestic final demand, is the product of two components: the market share of that country in its own domestic market multiplied by the share of its domestic market in global manufacturing final demand. The second term reflects the performance in foreign markets and is defined as the country’s export market share multiplied by the world openness ratio (excluding the country’s market). For all countries, domestic final demand represents a large part of national firms’ business activity, particularly in the three largest economies: the United States, Japan and China. In the main European countries, the share of domestic production in manufacturing final demand remains high, albeit below 50%.

Chart 3 shows the average annual growth rates of the first three components of the global market share described above. The deterioration in the performances of Japan and Germany compared with those measured by export data alone results not only from slower growth in their domestic manufacturing final demand than in the rest of the world, but also from a decline in the share of national firms in their own domestic market. Spain’s strong export performance has been accompanied by a decline in its performance in its domestic market. France, Italy and the United Kingdom have experienced a simultaneous decline in both their export and domestic market shares. These countries nonetheless differ in terms of their resilience in their domestic markets: strong in Italy, middling in France and Spain and lower in the United Kingdom.

We can therefore see that domestic and export performances do not necessarily follow the same trends. Chart 4 shows that growing specialisation of production activities serving manufacturing final is accompanied by worse performance of national firms in their domestic market. The countries where losses of domestic market shares are greatest, such as the United Kingdom, Germany and Spain, are those in which specialisation is greatest.

Conversely, China, which has conserved its domestic market share, has diversified its production supply over the period.

C3 Change in the components of global market shares (1995-2011) (average annual growth rate, in %)

C4 Specialisation and growth in domestic market share (1995-2011) (average annual growth rate, in %)
References

Cezar (R.), Duguet (A.), Gaulier (G.) and Vicard (V.) (2016) “Competition for global value added: domestic and export market shares”, Banque de France Quarterly Selection of Articles No. 41, Spring.
