OECD/WTO TRADE IN VALUE ADDED (TIVA) INDICATORS

UNITED STATES

The domestic value added content of United States exports in 2009 was 89%, the highest in the OECD, reflecting its relatively large size and capacity to source intermediate inputs from domestic providers (Fig. 1). The share was marginally lower than in 1995 (92%) but the fall is partly masked by the effects of the economic crisis which had a proportionally greater impact on globally fragmented production chains than on domestic value chains and also by an increasing specialisation in business services, which have a higher domestic value added content than goods. The foreign content of US exports nearly doubled between 1995 and 2008, rising from 8% to 15% before falling back to about 11% in 2009.

Figure 1: Domestic value added content of gross exports, % (EXGRDVA_EX)

The share of foreign content in United States exports rose in most sectors between 1995 and 2009, most notably in Chemicals and minerals exports where the share nearly doubled from 11% in 1995 to 21% in 2009. Embodied foreign content also doubled in Finance and insurance and Business services although from a much lower starting point – from 2% in 1995 to 4% in 2009 in both cases (Fig. 2.).

Figure 2: Foreign value added content of gross exports, by industry, % (EXGR_FVASH)
The share of intermediate imports used to produce exports was highest in Basic metals (27%). About one-fifth of total intermediate imports in the following products were used in producing exports: Chemicals and minerals, Electrical equipment, Transport equipment, and Machinery. Shares were little changed between 1995 and 2009 (Fig. 3).

Figure 3: Share of imported intermediate inputs that are exported, by import category, % (REI)

The foreign content of US Transport equipment increased from 12% in 1995 to 17% in 2009 (Fig. 2), with the increase spread across all regions. Asia’s share increased by 2.5 percentage points (pp) over the period to 7%, while the shares from Europe and North America increased by 1 pp to 5.5% and 2.5%, respectively (Fig. 4). Interestingly, the foreign content of electronic components and business services increased significantly while the content provided by upstream transport equipment manufacturers was only marginally higher, explained by the increasing knowledge and hi-tech intensity of transport equipment. The TiVA database currently, necessarily, assumes that for any given industry, the import content is the same for exports as it is for domestic sales. For the United States, particularly in the context of trade with Mexico via Maquiladoras, this may mean that the US content in Mexico’s exports back to the US is underestimated, partly explaining the overall rise in the foreign content of the Transport equipment sector in particular.

Figure 4: Foreign value added in Transport equipment, by originating region and industry, %

In terms of exports, the United States´ trading partners remain broadly similar in gross and value added terms (Fig. 5). Its share of exports to its NAFTA trading partners is slightly lower, reflecting the embodiment of US value added in NAFTA partner exports. For similar reasons US exports to Ireland are also smaller in value added terms. Its major partner countries for imports are also broadly unchanged but the contribution from China is significantly lower, reflecting the relatively low Chinese content in Chinese exports. Shares of imports from NAFTA partners are also lower in value added terms, reflecting the presence of their output in US exports to third countries. Japan and Germany’s shares are higher in value added terms reflecting the embodiment of their exports in third country (e.g. China) exports to the United States.
The domestic value added embodied in exports and intermediate imports embodied in exports combine to reveal a notable shift in the United States’ bilateral trade balances (as recorded in the OECD-WTO TiVA database). The US trade deficit with China for example was one-third smaller in value added terms (Fig. 6). Deficits were also smaller with NAFTA partners but increased with Germany, Japan, Korea and other Asian economies. In the January 2013 preliminary TiVA results the reduction in the US-China deficit measured in value added terms, compared to gross, was around 25%. Improvements in the methods used to derive coherence in international trade statistics and improvements in data on re-exports across countries have been the primary drivers of changes between the January release and this latest release.
In value added terms, just under half of the United States exports reflect services, marginally higher than the OECD average (48%) and nearly 10 pp higher than the share in 1995 (Fig. 7). The contribution of services rose in all goods-producing industries, particularly Basic metals, where the services content typically ranged from around one-quarter to one-third of the total value (Fig. 8).

Figure 7: Services content of gross exports, 2009  
(EXGR_*_SV; SERV_VAGR)

Figure 8: Services content of gross exports, by industry, 2009  
(EXGR_*_SV; SERV_VAGR)

The information included in this note is based on the May 2013 release of the Trade in Value Added (TiVA) database. The data can be accessed from www.oecd.org/trade/valueadded. For further information, please contact us (tiva.contact@oecd.org).