

June 2014

# CRISIL Opinion

## Pump up the volume

*Falling domestic value-added component means a stiff exports goal is needed to boost job creation*

*The Indian government will unveil the foreign trade policy for the medium term in a few weeks. The new commerce minister Nirmala Sitharaman has said that the government seeks to improve exports and thereby create job opportunities in the economy.*

*This time around, the exports bar will need to be set much higher even to simply maintain the previous impact of exports on job creation and income generation. Why is it so?*

*Gross export numbers are misleading in terms of the impact they have on jobs and incomes. We use the OECD value added database to draw implications of export growth for India. As a % of GDP, domestic value added in exports (DVA) - the proportion of exports that is truly produced within India - has fallen to 78% in 2009 from over 90% in 1995, according to OECD. This has lowered spillover impact of exports on employment and income generation. At the sectoral level, DVA in exports is now as low as 51% in other manufacturing items, 73% in chemicals and 76% in transport equipment.*

*To add to this, the employment intensity of exports has been falling over time with the share of service exports rising rapidly. Employment intensity of service sectors, for example business services which include IT/ITES is one of the lowest, given high productivity of labour in this sector.*

*Therefore, with both domestic value added and employment intensity of exports falling, a dramatic increase in the absolute size of exports is essential to match or exceed the spillover effect of exports as seen in the past. Also in the medium term, the composition of exports will need to change with a focus on labour intensive exports.*

With the new government getting down to business, focus is back on growth and creating jobs. An increase in exports at this juncture – when domestic demand remains sluggish - can provide the most effective fillip to growth. India's exports of goods and services improved to USD 470 billion (\$319 bn goods + \$152 bn services) in 2013-14 from USD 450 billion a year earlier, and are expected to pick up further this year. But the impact of exports on job creation and income generation depends on several other things.



Broadly, the spill-over impact of exports on the domestic economy is determined by three factors – the DVA component of exports, the employment intensity of export sectors and the absolute size of exports – all of which determine the extent of job-creation.

### Value what?

DVA is the proportion of exports truly produced within the country. Typically, greater the DVA component in exports, higher is the job creation potential and income generation.

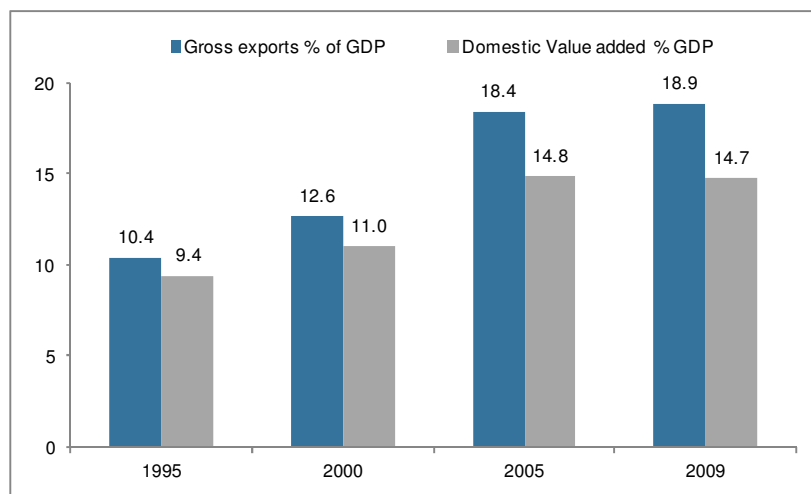
Today, the global supply chain has expanded horizontally – with various stages of production carried out in different countries – leading to a rise in the foreign value added (FVA). Take the iPhone assembly line. It is estimated that China exports billions worth of Apple’s iPhone in a year. However, for every iPhone 4 (for \$187.5) that was exported from China, in value-added terms, the US contributed 12%, Korea 43% and Germany 9%, while China contributed only 3.5%. This implies much lower returns in terms of income generation and employment than the gross export number for iPhone exports from China would suggest.

### yawning gap

In India’s case, the gap between gross exports and the DVA component of exports has widened over the past decade (Chart 1). Estimates based on the OECD-WTO Tiva database show that this gap was just 1.6% of GDP in 2000, but by 2009, the latest year for which this data is available, it had increased to around 4.2%.

The OECD-WTO study points out that the DVA declined in this period to around 78% of gross exports from around 90% in 1995 (Chart 2). The fall in DVA was considerable in industry (89% in 1995 to 72%) but much less in services. In agriculture, the DVA component remained unchanged at 97% (of total exports). Thus, in terms of the impact of exports on GDP growth and employment, the gross exports figure is becoming increasingly misleading.

**Chart 1: India - The DVA component of exports is less than gross exports (in nominal terms)**



Source: OECD, MOSPI, Crisil Research

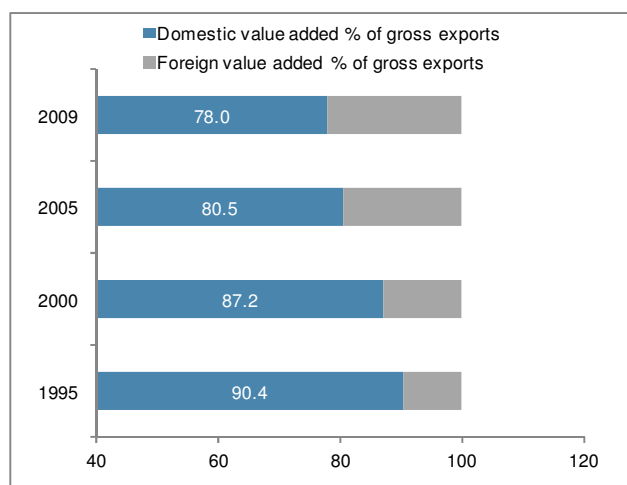
## The foreign hand shows

The DVA component has been declining – alternatively the FVA portion of exports has been on the rise due to greater integration with the global supply chain.

In the textile sector, for instance, the FVA component of exports doubled between 1995 and 2009. A similar trend was seen in electrical and optical equipment sector (Chart 3). The other manufacturing sectors saw their FVA increase to 49% in 2009 from 14% previously. In business services, the FVA component rose to 14% from 3% in 1995. Geographically, disaggregation of the FVA data for this period shows it rose 3.5% from the East and South-east Asia region, 2.5% from Europe and 1% from the US.

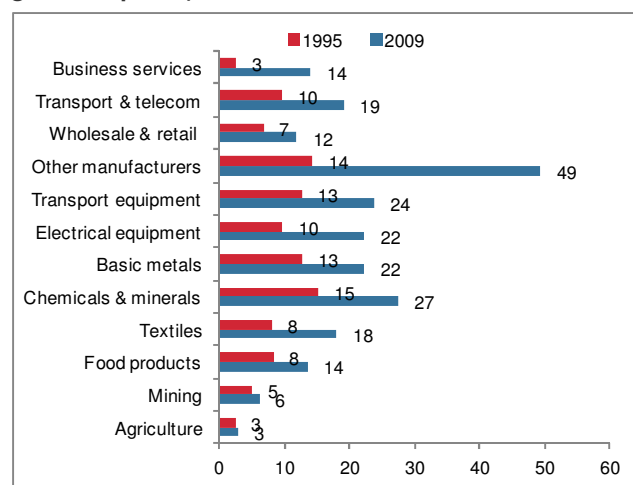
In addition to lowering the spill-over impact of exports on the domestic economy, higher FVA makes exports more vulnerable to exchange rate fluctuations, impacting export competitiveness.

**Chart 2: How the DVA component has reduced**



Source: OECD, Crisil Research

**Chart 3: The FVA component by industry (% of gross exports)**



## Comparing with China

The fall in the DVA of exports notwithstanding, India has fared better than China, whose DVA to gross exports was 67% in 2009 (down from 88% in 1995) compared with India's 78%. The reason lies in the composition of exports of the two countries. India has a higher share of services exports (37% of gross exports) compared with China (9%).

Given the nature of services (which tend to be non-tradable across countries), the DVA is higher in services than in industry. The data for India and China show exactly this – compared with manufacturing, the DVA in services is higher and similar in both countries (Chart 4). However, with India tilting towards services, the total DVA to total exports is more in India than in China.

### Falling employment intensity

The employment intensity of India’s exports is likely to have fallen with a rise in services exports. Despite the DVA in services exports being more than in manufacturing, job creation is lower given the low employment intensity of services. Specifically, business services, being more productive, absorb less labour than manufacturing or agriculture. In our report, HIRE & LOWER (January 2014), we had estimated that labour intensity – number of workers required to produce one million of real GDP (in rupees) – is 7.2 for manufacturing and only 1.4 for business services.

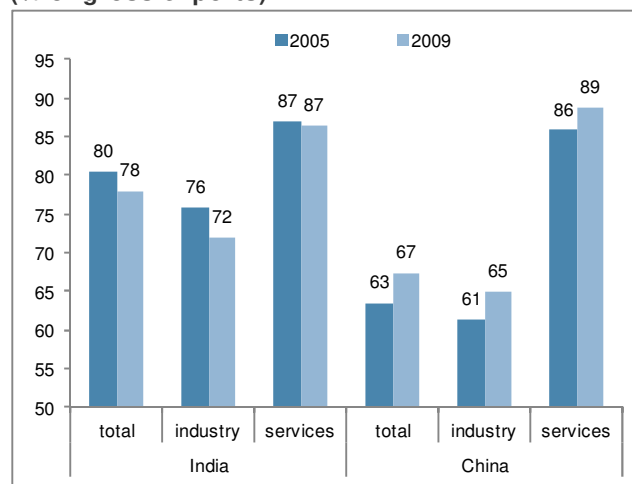
In addition to the rising service sector share of exports, service inputs in manufacturing have also risen. For example, in the textile sector, the service value-added (such as from textile design service) rose to 34% in 2009 from 28% in 1995. This further has a bearing on overall employment generation with every extra unit of value added generating lesser employment.

### Size matters, absolutely

With both the DVA and employment intensity trending lower, the absolute size of exports now needs to expand much faster if India is to match or exceed the spill-over effect of export growth on jobs and GDP seen in the past.

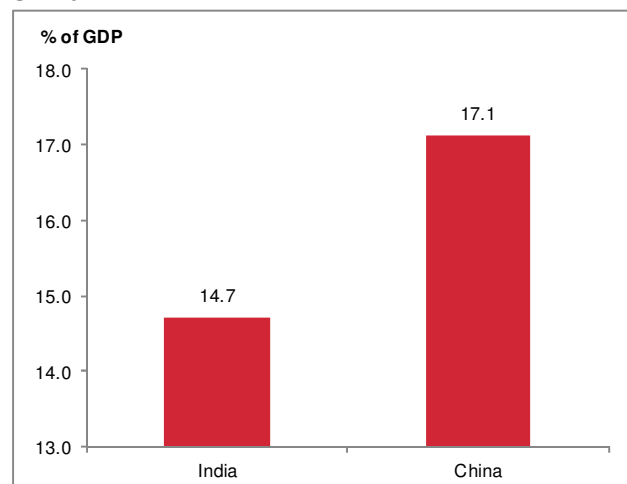
While China has a low DVA percentage per unit of exports compared with India, its absolute size of exports is much higher, more than five times India’s (\$1,283 billion compared with \$255 billion in India in 2009). This has resulted in higher overall DVA of exports to GDP in China (17% of GDP in 2009) than India (Chart 5).

**Chart 4: The DVA component of India and China (% of gross exports)**



Source: OECD, Crisil Research

**Chart 5: DVA of exports to GDP is higher in China**



Source: OECD, Crisil Research

### DVA likely to continue its fall

The case of other emerging economies such as Malaysia, Thailand and Philippines show that greater integration in global supply chain results in a fall in the domestic value add. DVA as a % of gross exports is lower in these countries as compared to India as of 2005. Overtime, as India increases participation in the global supply chain, the value added component will decline further.

**Chart 6: Domestic value added % of gross exports across countries**

DVA % of gross exports	1995	2005
Malaysia	60	58
Thailand	70	62
India	90	80
China	88	64
Philippines	69	54
Singapore	53	48

Source: OECD, Crisil Research

### Task cut out

Given the falling DVA, exports growth will have to be much faster to make the same impact on employment seen earlier. In other words, a percentage point increase in exports will have a lesser multiplier effect today on job creation and growth. The focus thus has to be on increasing the volume of exports. The commerce and industry ministry had in 2011 set a target of \$500 billion exports by the end of last fiscal. We have missed this target, but going forward only reaching this target will not suffice.

The government is likely to unveil the foreign trade policy for the medium term in a few weeks. Given the decline in the DVA, the exports bar will need to be set much higher to get the same multiplier effect on the economy. Also over time the composition of exports will need to change with a focus on labour intensive exports.

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