Subir Gokarn: Manufacturing mathematics

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Manufacturing has not yet moved to a broad-based decline that would warrant a strong macroeconomic policy response.

The Index of Industrial Production (IIP) for July 2007, released on September 12, showed the manufacturing sector decelerated to a growth rate of 7.2 per cent over July 2006, after many months of double-digit growth. While many of us in the forecasting community have been predicting that 2007-08 will see slower growth, including in the industrial sector, than the previous year, the first-quarter GDP growth rate of 9.3 per cent seemed to challenge that view. The re-assurance provided by the first-quarter GDP estimates was, of course, rather abruptly dismissed by the July industrial numbers, resulting in several doomsday predictions and calls for policy, particularly on interest rates, to quickly respond to the situation.

Are these concerns warranted? Is the relatively sharp drop in the growth rate from 10.6 per cent in June to 7.2 per cent in July indicative of a widespread loss of momentum across industries? A look at the growth performance of the 17 industrial segments that comprise the manufacturing sector over the first four months of the current year provides some insights into the nature and variety of factors driving the performance of the sector.

Let's start with the three biggest segments. Chemicals (17.6 per cent), machinery & equipment (12.1 per cent) and food products (11.5 per cent), together account for just over 40 per cent of the sector's output under the current weighting scheme. Over the period April-July 2007, the chemicals segment was quite volatile, with its growth rate fluctuating between 4.3 per cent (June) and 11.7 per cent (July). This segment produces essentially intermediate goods, which feed into a whole range of other production activities. Volatility indicates the differential performance of its users.

By contrast, food products started the year with an extremely high growth rate of 55 per cent. From that point on, this sector has decelerated, declining by 4.1 per cent in July and contributing significantly to the slowdown in the manufacturing sector between June and July. Machinery & equipment also shows a distinct negative trend, though less extreme, declining from a peak of 22.8 per cent in May to a modest 7.7 per cent in July.

These two segments represent the twin engines of consumption and investment spending, which have pushed GDP growth to such high rates. Discounting the magnitude of the decline in growth rates in food products, the negative trends in both do suggest a broad-based softening in demand. Machinery & equipment, in particular, has been growing at a relatively fast pace for about four years now. We cannot expect new capacity to be created at the same rate endlessly and some slackening of the pace sooner or later was to be expected, regardless of the overall macroeconomic scenario.

The next five segments "" basic metals & alloys (9.4 per cent), rubber, plastic, petroleum & coal (7.2 per cent), cotton textiles (7 per cent), non-metallic mineral products (5.5 per cent) and transport equipment and parts (5 per cent) "" account for about 34 per cent of manufacturing output. Basic metals showed steady performance over the period, growing at about 18 per cent. Rubber, plastic etc. and cotton textiles both display a negative trend. The growth rate of the former declined from about 14 per cent in April to 6.4 per cent in July, while that of the latter came down from about 10 per cent in April to about 5 per cent in July. Non-metallic mineral products, which include cement, displayed volatile growth rates. The striking decline was in transport equipment, which saw its growth rate declining from an already moderate 5.5 per cent in April to -3 per cent in July.

While rising interest rates are being pointed to as the main reason for a sharp drop in the sales of commercial vehicles, which are largely responsible for the pattern seen in transport equipment, the nature of the investment cycle must also be taken into account. Like machinery, commercial vehicles have also seen sustained growth in production and sales over the past four years. This has resulted in a younger, more efficient fleet on the road, which further enhances capacity and obviates the need for more vehicles. Sooner or later, the cycle would have peaked, the timing of course being influenced by interest rates.

Of the remaining segments, the most striking negative trend is in wood and wood products (3.4 per cent), which began the year with a growth rate of 92 per cent, accelerated to 132 per cent and then plummeted to 21 per cent in July. The other sectors show either a certain degree of volatility or mildly negative trends, but in any case, have too small a weight in the index to make a substantial difference to the sectoral growth rate.

Given this relatively mixed pattern across segments, what kind of inferences can one draw about the state of the manufacturing sector? First, notwithstanding the combination of volatility and negative trends, it is very clear that no major segment displays even a mildly positive pattern. The positive momentum visible until recently has apparently faded and, as the tide ebbs, segment-specific factors become more important and contribute to both greater dispersion across segments and higher volatility.

Second, the overall decline in July is exaggerated by the very sharp decreases in the growth rates of food products and wood & wood products, with a combined weight of about 15 per cent. It is not clear why these segments have manifested the patterns that they did, but, had they grown at more "normal" rates in April, May and June, the July decline would not have seemed as dramatic as it did.

Third, investment-related sectors have also contributed to the slowdown, as the investment cycle appears to be reaching its peak after a four-year upswing. However, it is not yet clear when that peak will be reached. Given the widespread expectation that GDP growth will continue to be in the 8-9 per cent range over the next few years, estimates of capacity requirements made in recent years will turn out to be inadequate to exploit the opportunities that this growth creates. The upswing may well continue, even picking up steam, as a more optimistic macroeconomic scenario gets incorporated into the investment plans of companies.

So, is growth in manufacturing slowing? Yes, but it seems to be in transition from being driven by the economy-wide momentum to a more complicated pattern influenced by segment-specific factors. It has not yet moved to a broad-based decline that would warrant a strong macroeconomic policy response.

The writer is Chief Economist, Standard & Poor's Asia-Pacific. The views are personal