

Industrial Production Annex

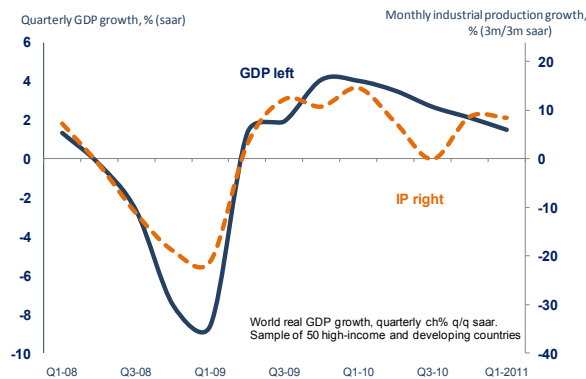
Global industrial production has rebounded in the fourth quarter of 2010 following the pause in global growth in the third quarter, only to moderate again by the end of the first quarter of 2011. The growth slowdown in the third quarter appears to have mainly reflected an inventory cycle, as underlying demand growth (proxied by GDP) continued to expand at a more-than 1.5 percent annualized rate (figure IP.1). In developing countries output accelerated beginning in the fourth quarter of 2010, and by the end of the first quarter of 2011, industrial activity in developing countries was expanding at a 13.4 percent annualized pace. In high-income countries industrial production growth decelerated sharply to 6.4 percent in the three month to March, from 15.3 percent in the three months to February, on account of a sharp 15.5 percent month-on-month decline in Japanese industrial production in March. Excluding Japan, growth in high-income countries was 7.9 percent in the three months to March, up from 6.7 percent in the fourth quarter of 2010.

The acceleration in the seasonally adjusted annualized rate of growth in developing countries was broadly-based, with the strongest pace recorded among countries in the East Asia

and Pacific (18.7 percent in March before easing to 15 percent in April), and Latin America and the Caribbean (10.3 percent). Growth in industrial production in Europe and Central Asia regions was 9.8 percent in the three months to March before decelerating to 3.8 percent by April, while production rose to 8.7 percent in South Asia in the three months to March, and to 6.8 percent in the three months to February in the 4 Sub-Saharan African countries reporting data.

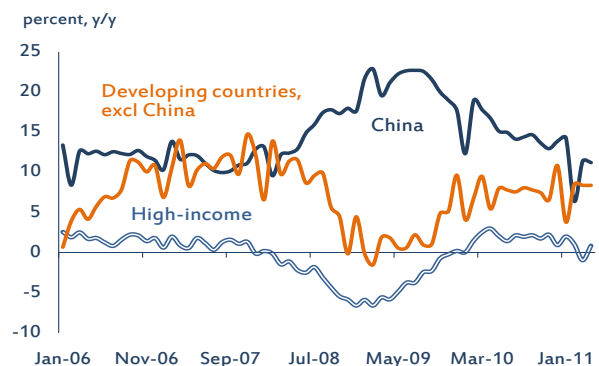
The good performance in industrial production has been underpinned by buoyant domestic demand in developing countries and a moderate recovery in high-income consumer spending. Slowly improving labor markets in several high-income countries have contributed to a return to solid retail sales volume growth. At the same time, the expiration of various incentive programs in both high-income and developing countries has contributed to volatility. For example, Chinese retail sales volumes growth slowed to 11.4 percent by March 2011 from 17.8 percent a year earlier, in part because of the expiry of new-car sales tax incentives. Nonetheless, global retail sales has posted positive annual growth for the last two years, with gains in developing countries (in a range of 7 to 15 percent annualized) while growth in high-income countries remained subdued (figure

Figure IP.1 Recent rebound in Industrial production following mid-year pause reflects inventory cycle



Source: Thomson/Reuters Datastream; World Bank.

Figure IP.2 Retail sales support growth



Source: Thomson Datastream and World Bank.

IP.2).

Many economies are now close to their pre-crisis peaks in industrial production, with emerging economies faring better than high-income countries (first panel, figure IP.3a). Industrial production in China is now more than 40 percent above its pre-crisis peak, and 36 percent higher for the East Asia region considered as a whole. Production in South Asia continues to grow strongly, and stands 21.4 percent higher than before the crisis peak, while Latin America and the Caribbean, Europe and Central Asia, and the Middle East and North Africa have yet to exceed earlier peaks levels.

Manufacturing capacity is now close to or above trend levels in East Asia & Pacific, Latin America and South Asia. In these regions the recovery has entered a new more mature phase where additional investment in productive capacity will be necessary to sustain growth ahead. Ample spare capacity remains in Europe & Central Asia and the Middle East & North Africa, with gaps estimated to be 14 percent and around 12 percent respectively. Spare capacity for the four countries in Sub-Saharan Africa for which data is available is also large at 9.2 percent (second panel, figure IP.3b).

To date only limited data (through February) are available for industrial production in the Middle-East and North Africa region. In Tunisia

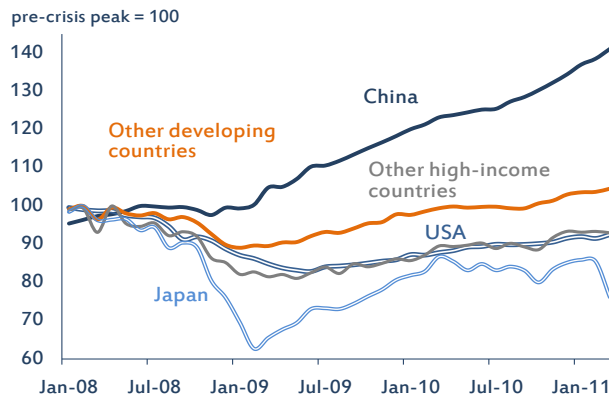
industrial production reportedly dropped 9.2 percent in the first quarter of 2011 over the same period of 2010, and on a seasonally adjusted annualized basis, output contracted 38 percent. In Egypt industrial production was down 8.3 percent year-on-year in the first two months of 2011, and 51.5 percent on a seasonally adjusted annualized rate relative to the previous two months. Industrial production is likely to begin to recover only modestly in following months.

Accounting for the impact of the Japanese Earthquake, Tsunami and nuclear crisis

The earthquake and Tsunami in Japan have also disrupted global industrial production. Current estimates suggest that damage from the Tohoku earthquake and Tsunami is significantly larger than that sustained following the Kobe earthquake in 1995. The impact of the Kobe earthquake on Japanese and global economic activity was relatively modest (a one-month decline of 1.6 percent in Japanese industrial production and of 8.4 percent in exports—followed by a 14 percent increase—and no discernible effect on quarterly GDP). If anything, the boost to private and public investment associated with the reconstruction effort was a net positive for GDP growth (table IP.1).

The current crisis is different because of the much larger disruption to Japan’s electrical

Figure IP.3a Most countries are yet to reach their pre-crisis industrial production peak



Source: Thomson Datastream and World Bank.

Figure IP.3b Industrial capacity utilization in Asia and Latin America approaches trend rates

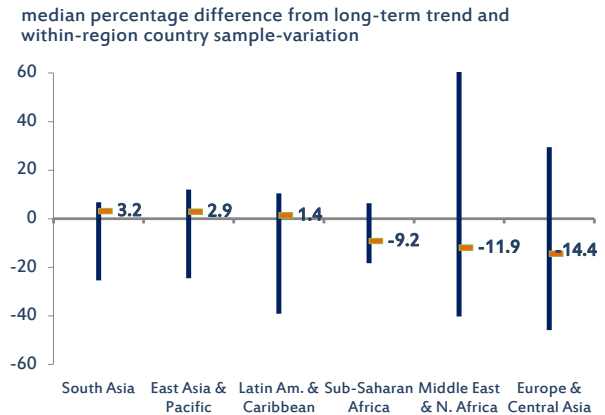


Table IP.1 Impacts of the 1995 Kobe and 2011 Tohoku earthquakes

	Kobe 17-Jan-95	Tohoku 11-Mar-11
Dimension of tragedy		
- size of tremor (Richter scale)	7.3	9.0
- Lives lost	6434	14,435
- Missing		11,601
- people left homeless	300000	450000
- Estimated Property Damage (% of GDP)	2.5	4.5
- Initial disruption to power system (% of generating capacity)		7.3
- Medium-term disruption to power system (% gen. cap.)		3.8

Source: World Bank; Various press reports and official estimates.

generating and distribution capacity, which has forced Japanese utilities to institute rolling blackouts that have contributed to plant shutdowns. About ½ of the disruption to electrical generating capacity concerns geothermic generating capacity and is expected to be fully restored in May, while lost nuclear capacity may be permanent. Currently, generating capacity in the Tokyo area, which represents about 40 percent of Japanese GDP, exceeds demand levels by almost 30 percent—partly because of voluntary conservation efforts. At the peak of the crisis capacity was reduced by 40 percent. TEPCO now expects to have 52m KW hours of capacity in place by the end of July, approximately 84 percent of peak summer demand. For Japan as a whole, the projected shortfall represents 3.8 percent of generating capacity.

March data suggest that the economic impact of the earthquake and tsunami was larger than initially expected. Industrial production declined a sharp 15.5 percent in March, retail sales contracted an annual 8.5 percent, and machinery and business equipment sales plunged 17 percent, while overall GDP declined 3.7 percent (saar) in Q1.

After having declined 6.5 points in March to 46.5 the all-industry PMI plunged further in April to 35 suggesting a sharp decline in output. This reflects port closures, supply-chain disruptions and suspended production at major plants due to uncertain electricity supply—

affecting exports of automobiles, electronics, and other industrial products. The disaster and repeated large aftershocks appear to have cut into the demand side as well. Partly out of solidarity for those most immediately affected by the crisis, many Japanese have cut back on consumer demand (including electrical demand). Japanese auto sales declined 30 percent immediately following the quake, and output was down 49.2 percent month-on-month in March. Disruptions in the auto industry are expected to last until the end of the second quarter, and could result in a halving of output.

The disruption to industrial production has been deep, but is likely to be relatively short-lived. GDP is expected to decline in the second quarter due to damaged infrastructure, closure of major industrial plants, disruptions in energy supply, shortages, and consumer restraint, before bouncing back strongly in the third and fourth quarters, as reconstruction efforts start (see main text). The all-industry PMI has increased to 46 in May, suggesting a rebound in industrial output from a very low base. Japanese output is expected to pick up in H2 2011 (the Tankan survey showed improved business sentiment for May after a plunge in April). Nevertheless, activity for the year will be flat, according to the latest Consensus forecast.

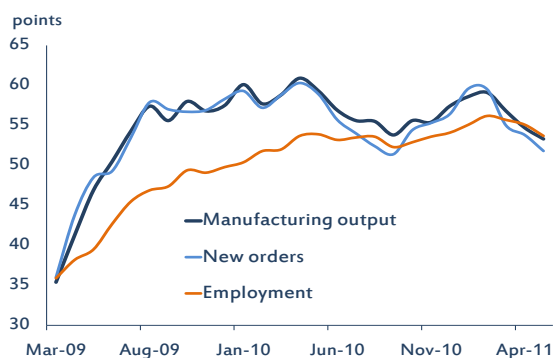
International impacts are limited so far but sectoral impacts are being felt. In the U.S., difficulties in securing parts caused total motor vehicle production to decline 12.2 percent month-on-month in April. A sharp decline in activity would be expected to have an important impact on Japan's main trading partners, both as Japan-sourced supplies become scarce and as demand from Japan declines. Emerging Asia will be the region most affected by the loss in economic activity in Japan, as these countries trade heavily with Japan and depend heavily on manufacturing. The most affected economies will be the ASEAN countries, followed by Korea and Taiwan, China. China and India will also be affected but less intensely (indeed, following the quake, China's purchasing manager index actually improved—reflecting domestic conditions).

Outlook

Both manufacturing and services purchasing manager indexes¹ (PMIs) have been rising strongly at the beginning of 2011, but have weakened starting in March reflecting, we believe, temporary and one-off factors, including the developments in Japan and weaker than expected growth in the United States. The lower PMI readings suggest that industrial production growth will ease markedly in the current quarter before reaccelerating in the second half of 2011, on account of reconstruction efforts in Japan and a lift from lower oil prices. More importantly, outside Japan industrial production is expected to grow at an above-trend pace, albeit decelerating.

The sharp retreat in global PMI in March and April to its lowest level since July 2009 comes after very strong readings in January and February. Global PMI outside Japan has also declined, down 4 points to 54.1 by May, a reading still consistent with near-trend growth. The global new orders component excluding Japan fell an even sharper 4.7 points in April, but inched up 0.5 points in May. Most components of the global manufacturing index declined, and the employment index is now higher than both the new orders and output components. The services PMI indexes have also declined sharply to 51 in April, after having surged to 59.2 by February but has picked up again in May to 52.5 (figure IP.4).

Figure IP.4 Global manufacturing PMI points to deceleration in the broad global recovery



Source: JPMorgan.

Industrial production in the euro area is expected to perform well, supported by strengthening consumer spending, robust business confidence and accommodative monetary policy. Nevertheless growth is expected to ease this quarter, as indicated by recent PMI readings, reflecting a slowdown in global trade expansion, the effects of a stronger euro, and fiscal austerity measures, and debt concerns among some members. Industrial output is expected to expand at a rate close to 5 percent in the second half of 2011, before easing to a more trend-like pace in the outer years of the forecast horizon.

Among developing countries the latest PMI readings suggest robust growth in manufacturing output in India and South Africa, with more moderate growth in Russia, Turkey, China, and Brazil.

Although industrial production growth is projected to surge in Japan during the second half of the year due to reconstruction efforts, elsewhere food and fuel inflation is cutting into real incomes and is expected to contribute to an easing in consumer demand growth and a slowing of the industrial expansion. These influences are already observable in recent data. The annualized pace of real retail sales growth in the United States slowed to 5.2 percent in the first quarter of 2011 from 9.6 percent in the fourth quarter of 2010.

Risks to the outlook

The overall outlook is subject to significant risks, notably the possibility that the situation in the Middle East and North Africa deteriorates, causing oil prices to remain high or rise even further. In this scenario rising input costs and weaker consumer spending would likely lead to weaker growth in industrial output in most developing and high-income economies.

Growing capacity utilization ratios in many developing countries may also restrict growth, especially if inflationary pressures become more marked – forcing an even more pronounced tightening of monetary and fiscal policies moving into 2012.

Finally, though the disruptive capital inflows to several middle-income developing countries have eased, they could return in force – potentially resulting in further appreciation of currencies and additional reductions to competitiveness (and therefore growth) of industry in these countries.

Notes

1. J.P.Morgan, *Global All-industry PMI*, May 2011 survey.