

Strong demand lifts producer prices after two months of weaker growth; inflationary pressures building

Global manufacturing production rose 4.0% year-on-year in July, the strongest increase since April 2014. Although most of the gain was explained by stronger productive capacity (potential output was up 3.0%), cyclical factors were also at play. The output gap, a measure of market tightness in the manufacturing sector, hit a 28-month high in July. Strong demand conditions fuelled an uptick in producer price inflation, which had eased in May and June as a result of weak commodity prices.

- Advanced economies:** Production volumes continued to accelerate in July, with most of the growth stemming from Western Europe (+3.1%) and Japan (+4.6%). Underlying the recovery of factory output is a noticeable improvement in non-residential investment. Production of capital goods (machinery, equipment) in G7 countries grew 4.1% in July and is up 3.0% so far this year.
- Emerging markets:** Manufacturing strengthened in most developing countries, suggesting the pick-up was triggered by global forces. Importantly, commodity exporters have started to contribute positively to output growth. In Latin America, for instance, output grew at its fastest rate in more than three years. Although private demand remains subdued (e.g. real retail sales are up 0.2% y-t-d), factories in the region are benefiting from strong export growth partly on the back of past currency depreciations.
- Inflation outlook:** In combination with higher raw material prices, strong cyclical conditions lifted producer prices in July after two months of subdued growth. Because the pass-through of producer to consumer prices is not immediate, however, it may take some time for CPI inflation to accelerate. Barring any major negative demand shocks, we expect operating conditions to continue tightening in coming months. We anticipate August production figures to show manufacturing production rising 3.6%, with a 2.7% increase in potential output. As a result, producer prices are expected to show a 0.4% rate of growth (3.7% y-o-y). Faster PPI inflation should translate into higher consumer prices in the fourth quarter, increasing the likelihood of monetary tightening in 2018.

Global manufacturing ¹ 2010=100, SA	July		June		7 months	
	2017 (p)	% chg yoy	2017 (r)	% chg yoy	2017	% chg yoy
World - All goods	123.1	4.0%	122.8	3.6%	122.1	3.5%
Advanced	108.0	2.6%	107.9	2.5%	107.6	2.3%
Emerging	154.8	6.0%	154.4	5.4%	152.8	5.4%
Packaged goods²	116.1	3.3%	116.0	3.1%	115.7	3.8%

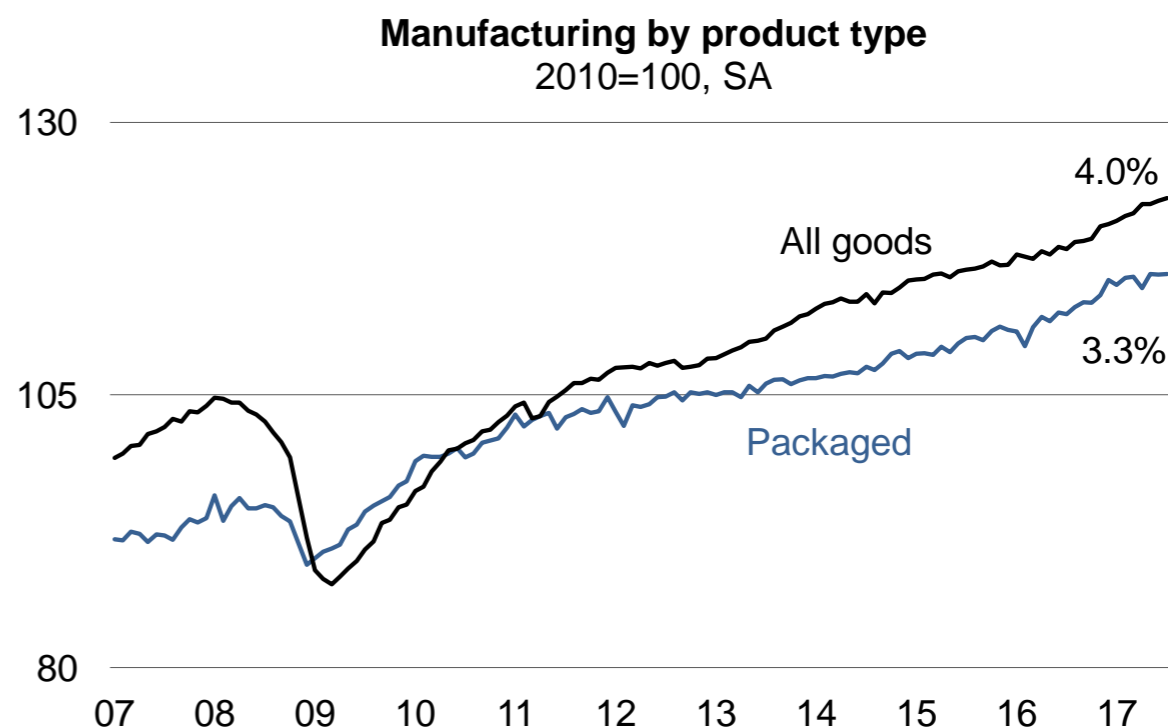
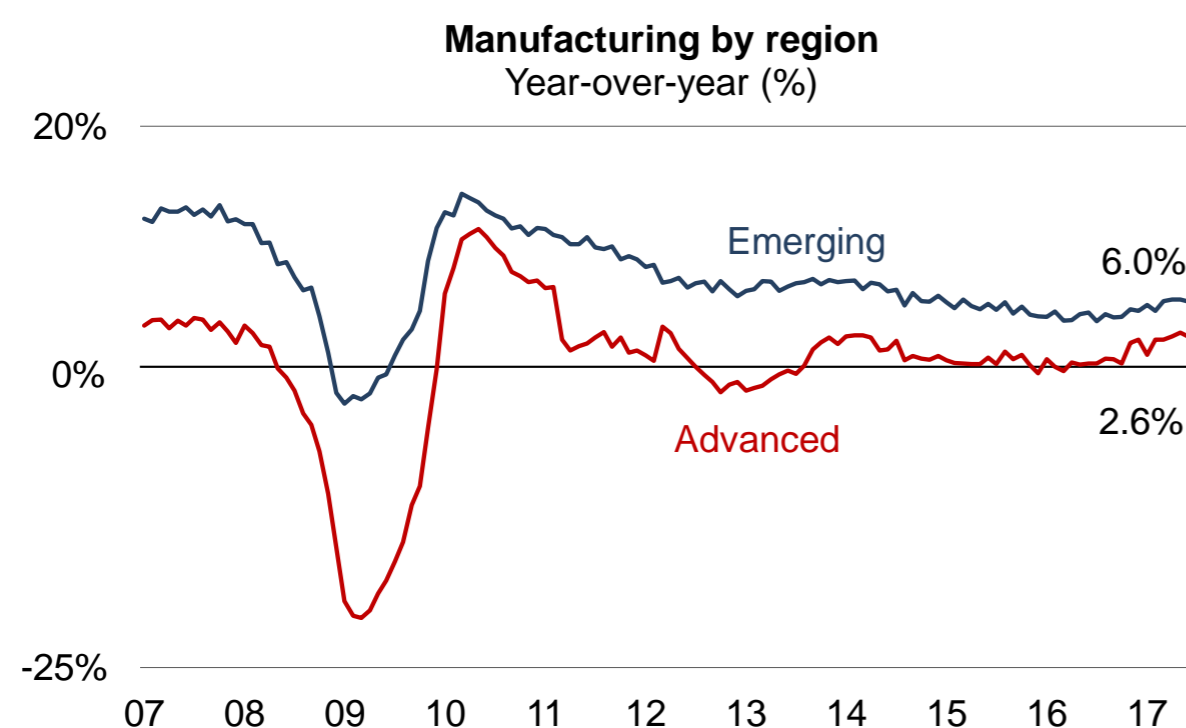
Structural indicators	July		June		7 months	
	2017 (p)	% chg yoy	2017 (r)	% chg yoy	2017	% chg yoy
Actual output	123.1	4.0%	122.8	3.6%	122.1	3.5%
Potential output ³	122.3	3.0%	122.1	2.7%	121.6	2.9%
Output gap (%)	0.6%	-	0.6%	-	0.5%	-
Raw material prices ⁴	76.8	7.8%	74.4	4.9%	77.4	15.6%

PPI manufacturing ⁵ Year-over-year (%)	July	June	May	April	7 months	
	2017	2017	2017	2016	2017	2016
World	3.2%	3.3%	4.0%	4.8%	4.3%	-2.0%
Advanced	2.3%	2.5%	3.2%	3.9%	3.3%	-3.0%
Emerging	4.8%	4.9%	5.6%	6.7%	6.3%	0.0%

PPI and raw material prices Month-over-month (%)	July	June	May	April	March	February
	2017	2017	2017	2016	2017	2017
PPI manufacturing	0.0%	-0.2%	-0.2%	0.0%	0.1%	0.3%
Raw material prices ⁴	3.2%	-2.0%	-1.4%	-2.1%	-2.3%	2.1%

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Manufacturing, regional detail 2010=100, SA	July		June		7 months	
	2017 (p)	% chg yoy	2017 (r)	% chg yoy	2017	% chg yoy
World	123.1	4.0%	122.8	3.6%	122.1	3.5%
Advanced	108.0	2.6%	107.9	2.5%	107.6	2.3%
Emerging	154.8	6.0%	154.4	5.4%	152.8	5.4%
North America	110.7	1.4%	110.7	1.6%	110.5	1.3%
Canada	-	-	111.3	2.8%	111.4	2.3%
United States	110.7	1.4%	110.7	1.5%	110.5	1.2%
Latin America	103.6	3.0%	102.5	1.5%	102.6	1.9%
Brazil	84.1	2.3%	82.6	-0.6%	82.6	0.4%
Mexico	122.7	2.7%	122.3	2.9%	122.5	3.2%
Western Europe	108.8	3.1%	108.5	2.5%	108.1	2.1%
France	104.4	3.9%	104.2	3.3%	103.6	1.9%
Germany	115.6	4.5%	115.2	2.1%	114.8	1.9%
Italy	98.4	4.4%	97.9	4.9%	96.6	2.3%
Spain	99.8	2.3%	99.8	2.1%	99.6	2.1%
United Kingdom	104.5	1.9%	103.9	0.5%	104.3	1.4%
Eastern Europe	128.2	4.2%	131.1	5.2%	129.6	4.4%
Poland	136.3	7.3%	138.1	7.2%	136.4	6.5%
Russia	153.2	10.1%	152.7	11.0%	150.4	8.9%
Asia	142.4	5.7%	142.0	5.3%	140.7	5.5%
China	186.9	6.9%	185.8	6.8%	183.7	6.7%
India	-	-	-	-	111.1	1.2%
Indonesia	132.6	132.6	142.2	6.3%	137.3	6.0%
Japan	101.4	4.6%	102.1	5.5%	101.0	4.8%
South Korea	111.2	0.0%	109.1	-0.8%	110.9	1.6%
Turkey	134.8	16.0%	132.0	4.3%	132.5	4.9%
Manufacturing, political aggregates 2010=100, SA	July		June		7 months	
	2017 (p)	% chg yoy	2017 (r)	% chg yoy	2017	% chg yoy
European Union (EU28)	111.2	3.5%	111.2	2.9%	110.8	2.6%
Eurozone (EU19)	110.0	3.4%	109.8	2.5%	109.3	2.2%
NAFTA	111.6	1.5%	111.6	1.7%	111.4	1.5%



¹ Monthly sample represents ~93% of global manufacturing production. Split by region, the index accounts for 100% of manufacturing activity in advanced economies and 84% of output in emerging markets. For countries that have not reported the latest month, the last two columns present year-to-date results.

² We proxy packaged goods with shipments of corrugated fibre boxes. Corrugated boxes are primarily used to store and transport non-durable goods (mainly FMCGs), facing limited competition from other substrates. In most countries, box shipments are a coincident indicator of non-durable goods manufacturing.

³ We define potential output as the maximum level of production the manufacturing sector can sustain without incurring inflationary pressures. While a measure of productive capacity, it should not be interpreted as a physical ceiling on manufacturing output. Demand shocks can cause production to deviate temporarily from this steady state level, creating an output gap. Both potential output and the output gap are Kalman filter estimates of a multivariate state-space model in which global manufacturing is benchmarked against a Phillips curve equation for producer price inflation. The inflation rate consistent with a closed output gap and no unexpected changes in commodity prices is currently estimated at ~1.7%.

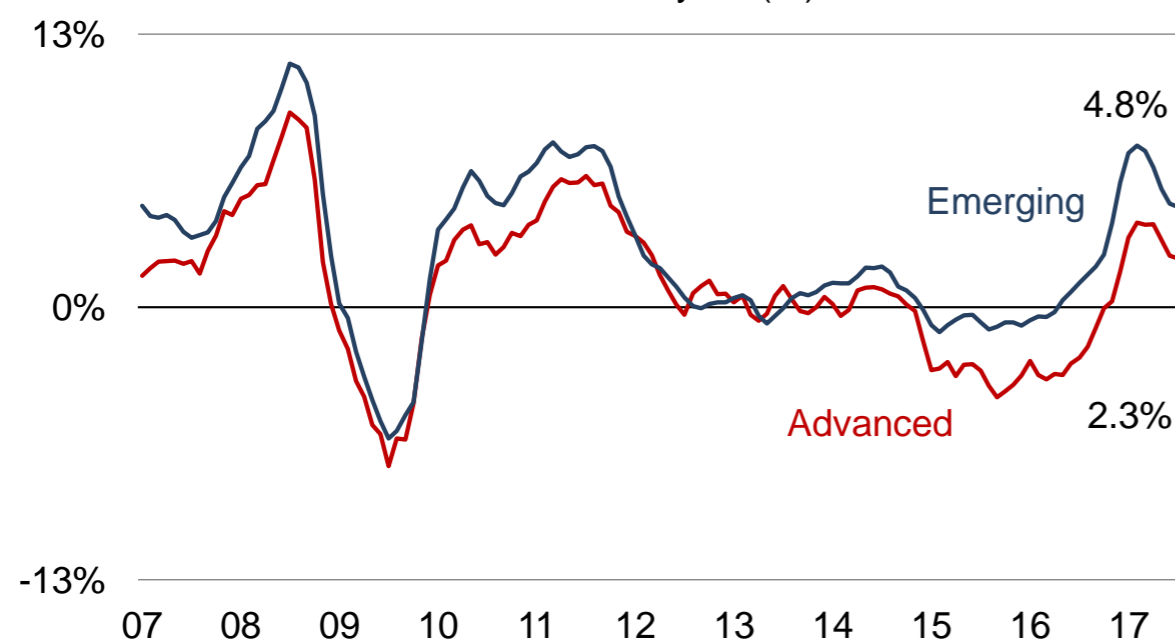
⁴ The raw materials price index is a weighted average of energy and non-energy commodities used in manufacturing production. Non-energy commodities include both industrial and agricultural commodities, such as metals and unprocessed food and beverages. The index excludes precious metals. Commodity weights are based on cost shares for intermediate inputs in manufacturing, constructed from input-output tables for the world's largest economies.

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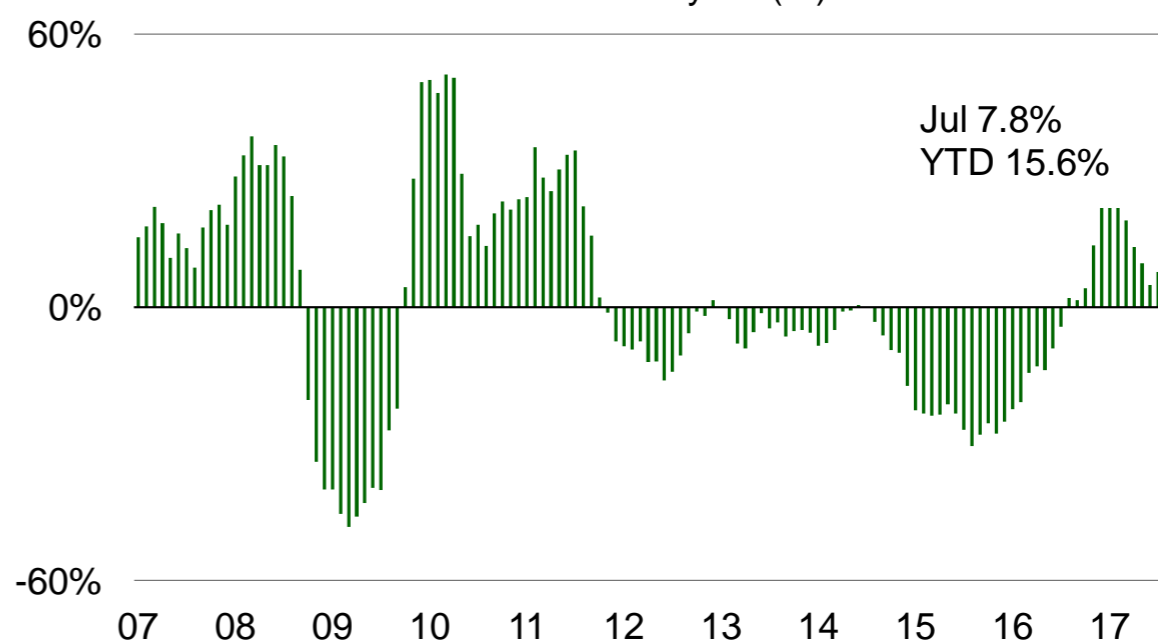
PPI manufacturing, regional detail 2010=100	July		June		7 months	
	2017	% chg yoy	2017	% chg yoy	2017	% chg yoy
World	107.9	3.2%	107.9	3.3%	108.1	4.3%
Advanced	104.3	2.3%	104.4	2.5%	104.4	3.3%
Emerging	115.4	4.8%	115.5	4.9%	116.1	6.3%
North America	107.3	2.2%	107.5	2.4%	107.1	3.3%
Canada	111.8	1.3%	113.5	3.1%	113.6	3.9%
United States	106.9	2.3%	107.0	2.3%	106.6	3.3%
Latin America	138.1	3.2%	138.8	3.8%	140.7	6.7%
Brazil	142.0	1.0%	142.5	1.1%	145.4	4.1%
Mexico	136.6	5.9%	137.6	7.1%	138.8	10.3%
Western Europe	105.3	2.5%	105.3	2.7%	105.5	3.8%
France	102.3	1.6%	102.3	1.4%	102.7	2.5%
Germany	105.9	1.9%	105.9	2.0%	105.9	2.3%
Italy	104.8	1.7%	104.8	1.6%	105.0	2.5%
Spain	106.4	2.6%	106.5	2.5%	106.8	4.2%
United Kingdom	108.6	4.1%	108.5	6.2%	108.2	6.8%
Eastern Europe	129.5	2.0%	129.8	2.3%	130.2	4.5%
Poland	107.5	1.6%	107.3	1.2%	108.0	2.8%
Russia	162.8	2.1%	163.5	3.1%	163.9	6.2%
Asia	103.8	4.3%	103.8	4.3%	104.1	4.9%
China	98.2	5.5%	98.4	5.5%	99.1	6.5%
India	122.3	2.2%	122.2	2.4%	121.8	2.9%
Indonesia	139.2	2.2%	139.4	2.9%	139.4	4.3%
Japan	99.1	2.0%	99.2	2.0%	99.1	1.8%
South Korea	95.8	3.1%	95.9	3.0%	96.9	5.1%
Turkey	182.4	17.4%	180.8	16.5%	178.7	17.1%

PPI manufacturing, political aggregates 2010=100	July		June		7 months	
	2017	% chg yoy	2017	% chg yoy	2017	% chg yoy
European Union (EU28)	105.2	2.2%	105.3	2.4%	105.6	3.6%
Eurozone (EU19)	104.6	2.0%	104.7	2.1%	105.0	3.2%
NAFTA	109.4	2.5%	109.7	2.8%	109.4	3.9%

PPI manufacturing by region
Year-over-year (%)



Raw material price index
Year-over-year (%)



⁵ The global producer price index captures the transaction price of goods sold by manufacturers to all consumers. For most countries in the sample, the reported indices consider both domestic and international transactions. Manufacturing PPIs can sometimes include prices paid by producers for intermediate goods. Reported prices generally exclude VAT and transportation charges and include discounts and rebates. Aggregation is based on a fixed base Laspeyres formula using manufacturing value added as weights.

Definitions: Data measures physical production of manufactured goods. The sector coverage corresponds to category C of the International Standard Industrial Classification (ISIC Rev. 4). That is, the production indices capture aggregate supply of consumer, intermediate and investment goods but exclude mining, utilities and construction. All production series are seasonally and calendar adjusted.

Source: Numera Analytics calculations based on publicly available information; current month for regional aggregates is partly estimated.

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