

Global Industrial Production Watch

A CHR Economics Publication

July 2016

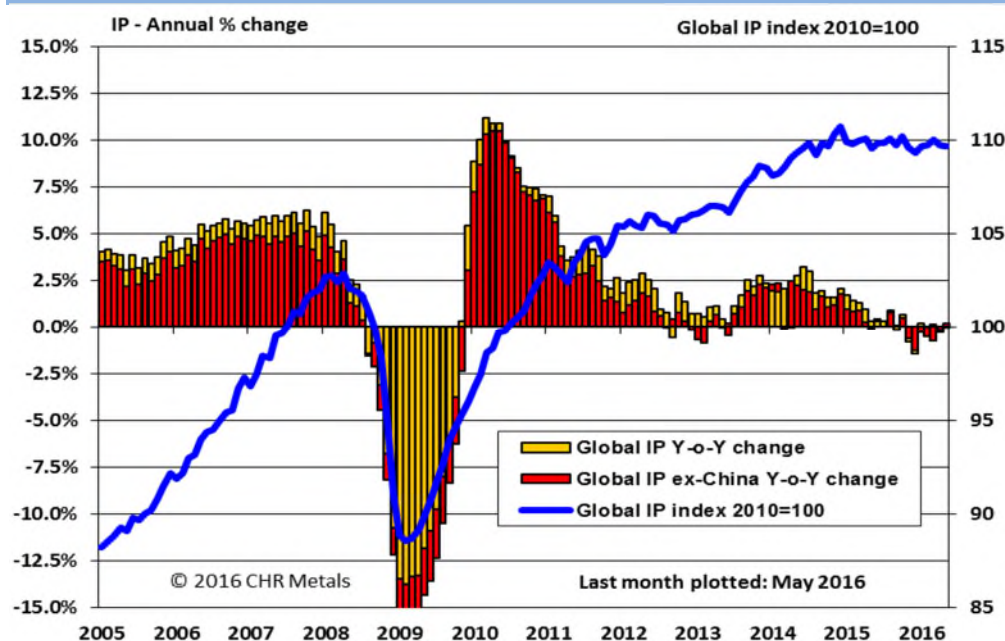
Global output fell by 0.1% in May

- Global industrial production (IP) fell by 0.1% month on month in May following a decline of 0.3% in April. Weakness was concentrated in OECD countries while industrialising/developing economies reported overall growth. Output in Q2 is likely to have increased by 0.2% quarter on quarter, slightly faster than in Q1.

THE GLOBAL OUTLOOK

- “Uncertainty” is probably the most over-used word to describe the current economic predicament facing the global economy. At almost every turn there are potential problems to be found and policy makers, whatever their political hue, appear to offer no new initiatives which might unlock the potential for growth. It is remarkable that global output in May this year was lower than in December 2014, and this despite all the best efforts of central banks in Asia, Europe and the USA. Perhaps the limits of what central banks can do have been reached and politicians must now accept their responsibilities and recognise that monetary policy alone cannot deliver growth in a world that still feels the effects of the global financial crisis of 2008/2009.
- The UK’s Brexit vote and nomination of Donald Trump as the Republican Party’s nominee for president of the USA, are the clearest possible signs that many people have lost faith in the political classes to deliver a satisfactory, and improving, quality of life. It matters not that the advocates of Brexit and Donald Trump offer vague and vacuous promises of a golden future. A life outside the EU will give the UK economy the opportunity to prosper on “broad, sunlit uplands” unfettered by regulation and boosted by free trade with all. In the USA, Trump promises that “...crime and violence will very soon come to an end”, if he is elected president.

Global IP Index and monthly year-on-year change



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THE GLOBAL OUTLOOK continued

- Voters appear uncritical of this nonsense and are simply looking for change to the political and economic status quo. It matters little that we believe that the UK electorate were wrong to back Brexit, nor that Mr Trump appears entirely unsuited to the task of leading the USA. The chart of global output, which shows that there has been no growth in eighteen months, and the fact that production today remains well below levels achieved in 2007 for many countries in Europe may, at least in part, provide some explanations for current voter disaffection for establishment order.
- However, it is against this background that we have to seek a direction for global output. Our intuitive appreciation of long-term business cycles, which has guided our forecasts in the past, provides few clues today. At a pinch we can discern a second phase of recovery within a “normal” eight to nine-year cycle during 2014. However, the picture revealed by most of 2015, and the first half of this year, is one of stagnation. We should be looking now at a third phase of expansion in the current cycle, which began in Q3 2009 with initial recovery following recession, characterised by accelerating growth leading to an accumulation of inventories, higher inflation and over-capacity. We find no evidence of this with the notable exception of China.
- Instead, most economies continue to stumble forward, hugging close to a line which separates recession from recovery. In some cases, we believe that the onset of more prolonged recession, albeit not particularly deep, may be imminent. Japan and the UK fall readily into this group. For others, central bank largesse may allow for a further inflation of financial assets which could provide just enough stimulus to sustain another few quarters of lacklustre growth. But our sense is that returns from monetary policy alone are receding rapidly.
- Despite our pessimistic tone our global growth forecast is slightly higher in 2016 than shown in last month’s report, at 0.4% compared with 0.3% earlier. This masks a downward revision in OECD growth but a better performance in China based largely on June data which was significantly stronger than anticipated. We are by no means sanguine about developments in China and watch, amazed, as Beijing, through the agencies of state-owned enterprises and local governments, continues to pursue large-scale investment in infrastructure and construction projects funded by debt.

Voters are disaffected with the establishment order

The pattern of past business cycles is difficult to discern in current data

Some countries are close to, if not in, recession

Forecast growth slightly higher in 2016 but unchanged for 2017

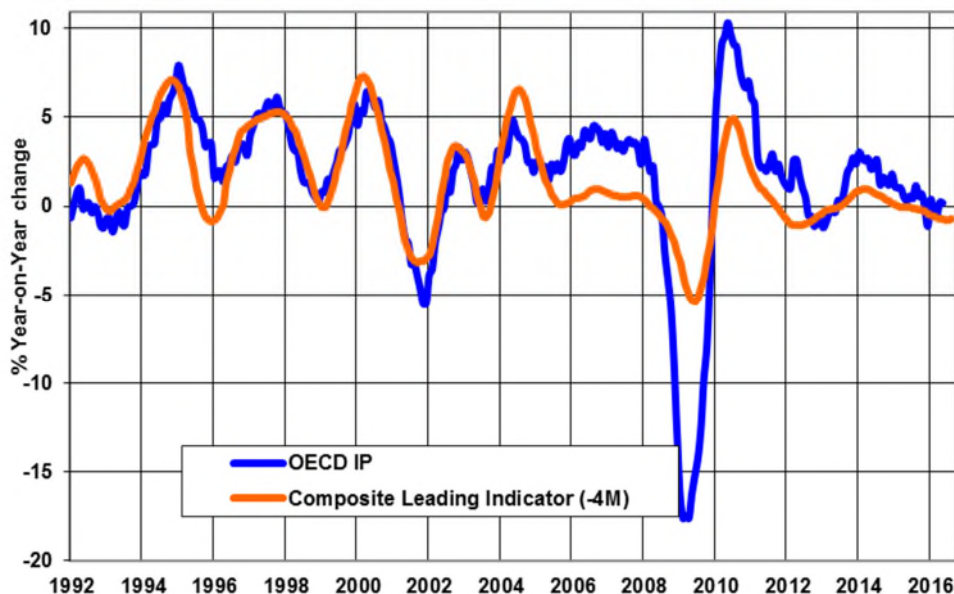
Annual & quarterly IP growth, actual and forecast

	Annual actual			Forecast				Quarter on quarter							
	2012	2013	2014	2015	2016	2017	2018	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16
North America	2.5%	1.7%	3.0%	0.3%	-0.5%	1.8%	-1.0%	-0.5%	-0.7%	0.6%	-0.7%	-0.3%	-0.3%	0.6%	0.9%
Canada	0.0%	1.6%	3.9%	-0.8%	0.8%	1.9%	-0.8%	-0.9%	-1.7%	1.9%	-0.2%	0.3%	-0.5%	0.7%	0.6%
Mexico	2.8%	-0.4%	2.6%	1.0%	0.6%	2.6%	-0.9%	-0.1%	0.1%	0.7%	-0.3%	0.4%	-0.6%	0.7%	0.8%
USA	2.8%	1.9%	2.9%	0.3%	-0.7%	1.7%	-1.0%	-0.5%	-0.7%	0.4%	-0.8%	-0.5%	-0.3%	0.6%	0.9%
Europe	-0.8%	0.1%	1.3%	0.7%	1.5%	1.9%	-1.2%	0.0%	0.0%	0.2%	0.3%	0.5%	0.3%	0.6%	0.6%
France	-2.3%	-0.4%	-0.8%	1.7%	0.4%	1.6%	-1.8%	1.2%	0.0%	0.5%	0.5%	-0.6%	0.0%	0.4%	0.7%
Germany	-0.4%	0.1%	1.3%	0.9%	1.3%	1.3%	-1.2%	0.0%	0.4%	0.0%	-0.6%	1.7%	-0.4%	0.5%	0.3%
Italy	-6.2%	-3.0%	-0.6%	0.9%	1.1%	0.7%	-2.0%	0.5%	0.5%	0.5%	0.0%	0.7%	-0.4%	0.4%	0.3%
Russia	3.1%	0.7%	1.7%	-3.1%	0.6%	2.8%	1.0%	-2.4%	-2.1%	0.1%	0.2%	0.3%	0.2%	0.7%	0.6%
UK	-1.4%	-1.1%	2.7%	-0.3%	0.5%	0.3%	-1.9%	-0.2%	-0.6%	-0.5%	0.1%	-0.2%	1.7%	-0.4%	-0.2%
Asia															
China	6.4%	3.7%	3.8%	1.3%	0.8%	-2.6%	-1.3%	-0.9%	1.2%	-0.5%	0.2%	0.9%	-0.1%	0.0%	-0.7%
Asia ex China	1.5%	1.0%	2.1%	0.6%	0.4%	2.1%	-0.3%	0.3%	-0.1%	0.0%	0.0%	-0.4%	0.5%	0.6%	0.8%
Japan	0.1%	-0.6%	1.9%	-1.3%	-1.6%	0.7%	-2.5%	1.0%	-1.3%	-1.0%	0.0%	-1.0%	0.0%	0.4%	0.2%
India	0.7%	0.5%	1.8%	3.3%	1.5%	4.6%	2.0%	2.3%	1.4%	0.3%	-2.2%	0.8%	1.1%	1.3%	1.4%
Korea	1.7%	0.6%	0.6%	-0.9%	-0.3%	1.3%	-0.5%	-0.3%	-0.4%	1.7%	-0.9%	-0.6%	0.2%	0.0%	0.2%
South America	-2.1%	1.6%	-2.1%	-4.8%	-4.5%	1.4%	0.8%	-3.1%	-0.4%	-1.5%	-1.5%	-3.0%	0.7%	-0.1%	0.3%
Brazil	-2.7%	2.2%	-2.9%	-8.2%	-7.7%	1.5%	1.2%	-2.4%	-2.8%	-3.4%	-3.7%	-2.2%	0.6%	-1.5%	-0.8%
Others															
Australia	3.4%	2.0%	4.6%	1.5%	5.0%	2.2%	0.5%	0.5%	-1.2%	2.5%	0.3%	3.2%	0.2%	0.4%	0.7%
South Africa	2.3%	1.3%	0.1%	0.0%	1.4%	2.5%	-1.0%	-0.2%	-1.8%	1.3%	-0.2%	0.2%	0.8%	0.7%	0.8%
OECD	0.5%	0.6%	2.1%	0.5%	0.4%	1.6%	-1.4%	0.2%	-0.4%	0.3%	-0.3%	0.1%	0.0%	0.5%	0.6%
Non-OECD	3.4%	2.5%	2.3%	0.3%	0.5%	0.4%	-0.1%	-1.1%	0.5%	-0.3%	0.0%	0.0%	0.4%	0.4%	0.2%
Global	1.6%	1.4%	2.2%	0.4%	0.4%	1.1%	-0.8%	-0.3%	0.0%	0.0%	-0.1%	0.1%	0.2%	0.5%	0.5%

SUMMARY OF LATEST DATA AND CURRENT ESTIMATES

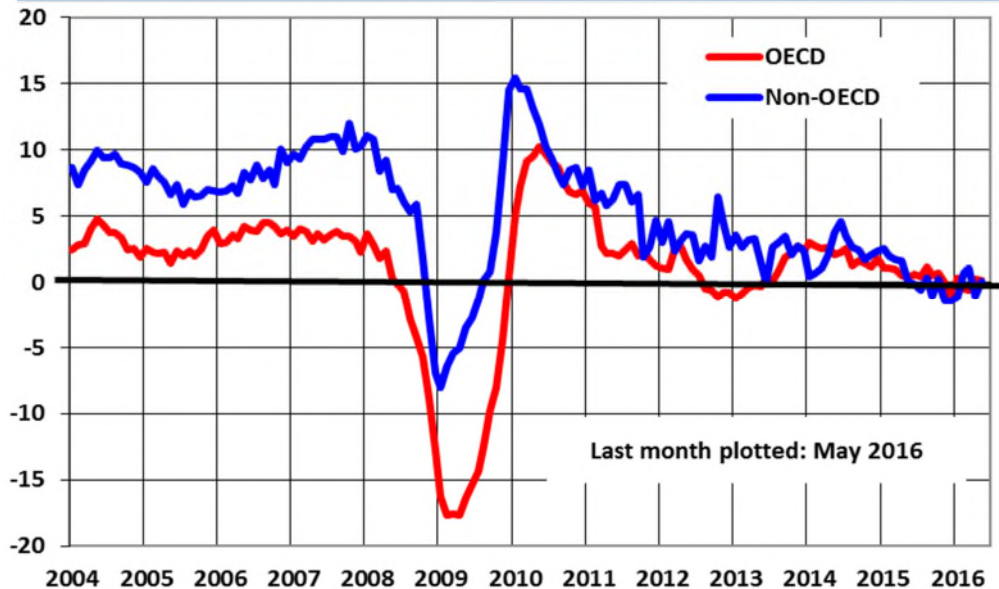
- Global industrial production fell by 0.1% month on month in May following a (revised) decline of 0.3% in April. Japanese data remain volatile with output down by 2.5%. There was also weakness in Europe (-0.8%) and North America (-0.2%). South America surprised on the upside with growth of 1.4%. This reflected unchanged output in Brazil and a sharp improvement in Argentina. Asia excluding Japan saw growth of 1%. We are expecting data to show that global production rose month on month in June with both the USA and China already reporting growth in the month. This will help lift growth in Q2 to 0.2% quarter on quarter from 0.1% in Q1.

OECD composite leading indicator and IP growth



- OECD output fell by 0.6% month on month in May, dragged down by weakness in Japan and Europe. This followed growth of 0.5% in April. In the wake of uncertainty caused by the UK voting to leave the EU, the OECD has taken the not quite unprecedented step of suspending publication of any leading indicators until September.
- Non-OECD output rose by 0.6% month on month in May but this followed a sharp 1.4% decline in April

OECD and Non-OECD IP growth (monthly - % year-on-year change)



Weakness in OECD countries held back global growth in May

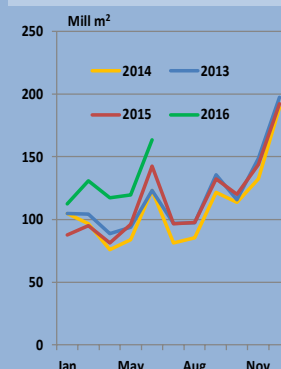
Output expected to rise 0.2% in Q2

Brexit uncertainty leads OECD to suspend publication of leading indicators

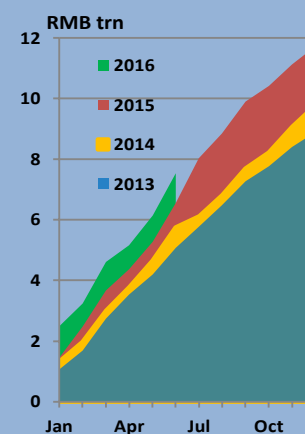
CHINA –STIMULUS STILL DELIVERS BUT WITH DIMINISHING RETURNS

- In last month's report we noted that there was a more positive mood about developments in at least some sectors of China's economy. This optimism has spilled over into metal markets in recent weeks. We now have the data which perhaps show that there were reasons for believing that China's latest effort at stimulating output were working, although this is not necessarily evident in China's headline reports. The National Bureau of Statistics reported a small 0.2% increase, to 6.2%, for year-on-year growth in industrial production in June. On a seasonally-adjusted basis it reported month-on-month growth of 0.47%, up from 0.44% in both May and April. For the first half of the year production was 6% higher and it would be brave to bet against this figure being significantly different in December. China's official data series will most likely meet targeted growth for the year. Data for GDP is also very steady, with year-on-year growth of 6.7% in both Q1 and Q2. One curious feature of this statistic is that nominal GDP growth in Q2 was 8.2% up from 7.1% in Q1. This should imply a not insignificant increase in China's GDP deflator between Q1 and Q2. This, however, seems unlikely with consumer prices increasing at a slower annual pace in Q2 (around 2%) compared with Q1 (2.3%) while wholesale (producer) prices are still down year on year although by not as much as in Q1.
- Our own production data reveal a sharper pick-up in industrial activity in June than apparent in the official data. We estimate that output rose a seasonally-adjusted 2.1% following (revised) 0.2% month-on-month growth in May. This outcome means that Q2 saw production slip by only 0.1% compared with Q1, rather less than our previous estimate of -0.9%. We calculate growth to be 1.0% year to date, up from 0.8% in May.
- There is evidence in the detailed production data that many parts of China's industrial sector are experiencing contraction, or only very slow growth. This is obvious in some of the older sectors, dominated by heavy industry such as coal and iron ore mining and ship building. Construction materials, cement, steel products and glass, are only doing slightly better and the picture on home appliances is mixed. However, the past two months have seen some quite spectacular increases in electronics manufacture. Mobile phone production was 31% higher year on year in June and was 23% up year to date. However, trade data show mobile phone exports slightly down in H1 and there is no evidence to support a major pick-up in domestic sales to justify such a large increase in production. There has also been a jump in manufacture of equipment for mobile phone base stations (+37% year on year in June), "programme-controlled switchboards" (+69%) and integrated circuits (+20.5%). On the other hand, output of computers and micro-computers are reported to be sharply down. We note also that output of copper products rose by 18.8% year on year in June having been only 11.5% ahead in May and 3.3% higher in April. This probably reflects the reported surge in investment spending on the "production and supply of electric and heat power", as reported by the NBS, up by more than 25% in the first half of the year.
- Chinese government stimulus, in the form of direct investment and through the demand that banks roll over local government loans and extend new credit to support further investment in infrastructure and real estate, is most likely to be seen in the modest gains now being reported in the output of various products and materials related to construction. Moreover, orders may well have been booked well ahead of actual output in an effort to meet targets. But against the background of very weak private investment and declining exports, we struggle to make sense of the large gains being reported for some electronic goods.

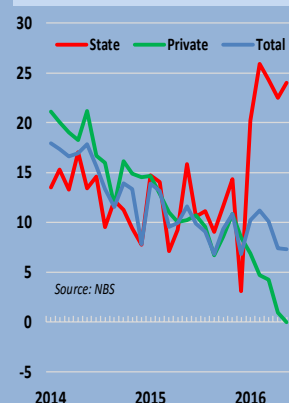
Floor space of commercial buildings sold by month



Cumulative new yuan loans



Fixed asset investment, Y-o-Y change %

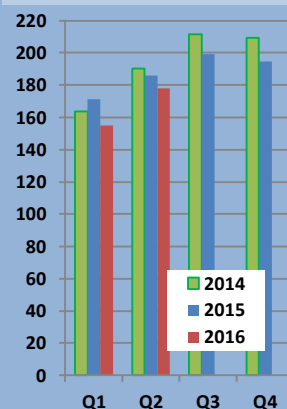


- We believe that continued credit growth remains the principal driver behind this phase of China's longer-term economic cycle. This expansion of credit is a direct consequence of government policy and is occurring despite a significant deterioration in the quality of loans already outstanding, the solvency of many enterprises with large debts to service and repay, and growing instances of outright default. Moreover, given the speed at which Beijing is demanding progress on infrastructure and construction projects, the mis-allocation of capital that has been of increasing concern to many who monitor developments in China, can only get worse. A current specific example is the news that ground was broken in May on a second, three-runway airport to service Chengdu (Tianfu international airport) to be commissioned in 2020, even though the current two-runway airport is almost certainly under-utilised when compared with many airports elsewhere in the world. Airport construction remains a favourite capital project even as most shorter journeys that might be undertaken by air will have to compete head on with China's very impressive, and ever-expanding, high-speed rail network. The many "ghost" new cities and new city zones that litter China's landscape also provide their own, largely silent, testimony, to inefficient and wasted investment.
- Export sales remain weak, down 6% year on year in June and 4.3% in Q2 overall and appear to have benefitted little from the gradual depreciation of the RMB which has lost 3% of its value against the US dollar since the beginning of the year. Weak export sales reflect weak demand in many of China's markets, something which domestic policy can do little to overcome.
- China's auto industry remains buoyant. Sales of passenger cars rose by 18% year on year in June. Sales year to date were 9% higher with a 44% increase in sales of SUVs helping to offset a small decline in saloon cars. Year-on-year comparisons are likely to remain high until October as it was in October last year that the government cut the tax on cars with engines less than 1.6lt capacity to 5%. This tax break is to remain in place until the end of this year.

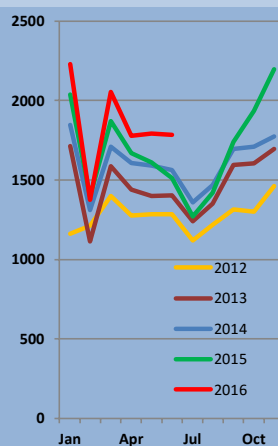
DEVELOPMENTS ELSEWHERE IN ASIA

- We remain broadly optimistic about prospects for growth in **India**. Industrial production rose by 1.8% month on month in May and it is likely that there was quarter-on-quarter growth of just over 1% in Q2. While this is not fast enough to meet the ambitious target of the BJP-led government, it is a creditable performance against the background of global economic uncertainty. The current monsoon season has, to date, delivered more than adequate rains to most areas and farmers have responded by increasing the area planted. Reports that there has been a 40% increase so far in planting of pulses should reduce pressure on food price inflation later this year as well as being beneficial for farmers' incomes. In short, a good monsoon helps to keep inflation in check while also boosting demand for consumer goods. Inflation remains a key concern for India's Reserve Bank. Consumer price inflation was 5.8% in June, the same as in May, but up from 4.8% in March. There has also been an increase in wholesale prices, largely due to higher energy costs, but the rate remains modest at just 1.6%. These developments mean that the out-going governor of the Reserve Bank is unlikely to be tempted into cutting interest rates in the near term. Indian car sales (saloons, SUVs and small vans) which grew by 7.8% in 2015, have expanded at a somewhat slower pace in H1 this year, up by 4.5%. Sales in June were 2.7% higher year on year although all the growth was in the SUV sector (+35%). Sales of saloon cars and vans were down.
- **Japanese** industrial production fell sharply again in May, down by 2.5% month on month. Japanese data have been very volatile this year and we expect that output

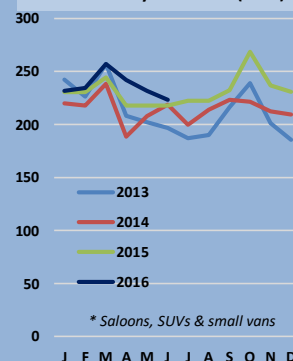
China: Monthly average export value (US\$bn)



China; passenger car sales (th)



India: Monthly car* sales ('000)



* Saloons, SUVs & small vans

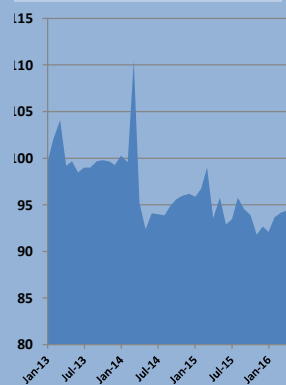
rose a little in June and that, for Q2 overall, activity was little changed from Q1. This, however, is hardly a positive outcome given the extent of monetary easing that has taken place in Japan since Shinzo Abe began his second term as prime minister in December 2012. The perverse reaction of markets to the measures pursued by the Bank of Japan, which are primarily intended to boost inflation and increase domestic spending, has been to drive the value of the Japanese yen higher against the US dollar. Early in the year it stood at over ¥120 to the dollar but in early July it almost reached ¥100 to the dollar. While the yen has given up a little ground since then, its strength through H1 has made it difficult for Japanese exporters to compete in markets which are, in any event, already weak. We do not see any sign of a coherent new strategy for encouraging growth in Japan while earlier promised reforms have yet to see the light of day.

- **Korean** industrial production rose by 2.5% month on month in May but this followed two consecutive months of decline. Like Japan, Korea's output data have also been volatile this year. The Korean government announced this month new *fiscal* stimulus which will focus additional government spending on large projects with good potential to create jobs. In this regard Korea is breaking ranks with many other governments which have chosen monetary measures alone as the principal tool to deliver economic stimulus.

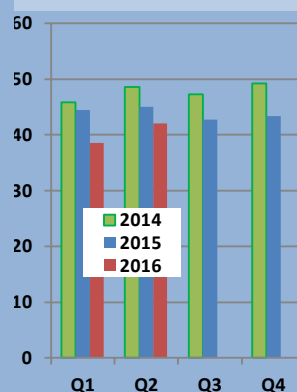
EUROPE; JUST ONE THING AFTER ANOTHER

- As we wrote last month's report we were just coming to terms with the fact that the UK, against the expectations of polls and bookmakers, had voted to leave the European Union. From an economic point of view we believe that if, as seems most likely, the UK does embark on disengagement from the mainland of Europe, in essence insisting on full control of its borders and ending the free movement of people, the negative consequences will be more severe for the UK than those countries that remain within the Union. However, it remains possible, although improbable, that the UK will end up accepting free movement of people in exchange for continuing membership of the European free market. Such an outcome would be largely neutral for all from an economic standpoint except for the intervening uncertainty while a deal is thrashed out which will almost certainly mean less investment in the UK than might otherwise have been the case.
- Of course, it is also possible to argue that the European Union and Eurozone, as it exists today, will not survive in its current form given internal economic difficulties and conflicts. In this case perhaps the UK has made a sensible choice in jumping ship before it wrecks on the many rocks in its path. The Eurozone just about survived its handling of the 2012 sovereign debt crisis although the final act(s) of the Greek tragedy have yet to be played out. Now it is facing the prospect of bank failures in Italy unless a way can be found to skirt around the rules which restrict state aid to the banking sector. (Non-performing loans at Italian banks stood at 18% of total loans in 2015.) And while EU officials make demands on the Italian government to force private bondholders to accept losses on their investment in Italian banks, Italy's prime minister, Matteo Renzi, accuses EU banking regulators of turning a blind eye to the massive derivative exposure of Deutsche Bank which he sees as being one hundred times the scale of the problems facing Italian banks. The arcane world of valuing derivatives is well beyond the scope of this report but we mention it as evidence of the wide gulf between the various parties involved in EU negotiations relating to bank finance and limits on state aid. If Renzi fails to make headway in his negotiations with the EU then he may also fail to win a referendum he has called, likely to be in October or November, to give approval to constitutional changes aimed

Japan: All household spending
(2010 = 100; To May 2016)



Korea: Monthly average export value (US\$bn)



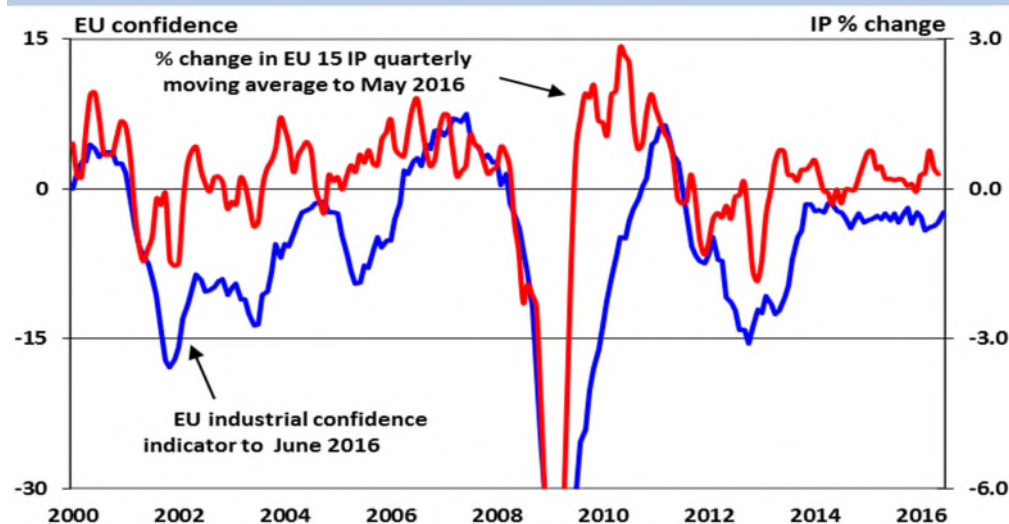
A succession of economic and political crises have dogged Europe in recent years

Italy is demanding concessions from its European partners

at streamlining Italy’s political system. If Renzi does not win then he will resign and it is likely that the eurosceptic Five Star party will gain the most seats in the subsequent election. While not wishing Italy to leave the EU, Five Star is considering offering voters a chance to have their say on staying within the Eurozone.

- There are many more internal issues which risk economic cohesion within the EU. There are also pressing issues of security, heightened by the horrific incident in Nice and smaller-scale attacks elsewhere. And on its borders Europe continues to face a tide of refugees, growing instability in Turkey and the, so far, unresolved conflict in Eastern Ukraine. In detailing some of the issues which face EU politicians and officials, our intention is not to suggest that the region faces imminent break-up. However, there are clearly downside risks to economic growth and stability and we can find, for now, little to offset this pessimism. There is, perhaps, some cause for hope in the new UK’s government commitment to a relaxation of austerity and a desire to pursue fiscal policies more orientated towards promoting growth. If a few more European countries were able to do the same prospects across the region would look better.

European Industrial Confidence Indicator



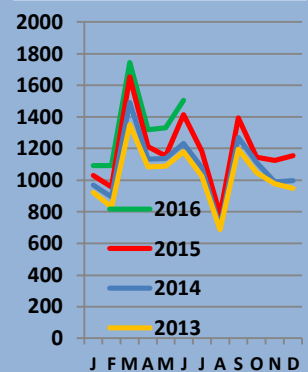
- In the context of all that has happened over the past month we were surprised to see a small gain in EU industrial confidence in June. This may have been on the back of the rather strong data for industrial output in April. These earlier gains were, however, largely reversed in May and our expectation is that confidence will have declined in July. A later survey, the ZEW Indicator of Economic Sentiment which measures German economic confidence, slumped this month to its lowest level since late 2012.
- Output across Europe fell by 0.8% month on month in May following a rise of 0.9% in April. All the major economies reported declines. Production was down by 1.3% in Germany, -0.6% in Italy and -0.5% in France and the UK. Output was also weak in Scandinavia, across most of Eastern Europe and in Spain, Portugal and Greece. Turkey (+0.6%) was one of the few countries to report growth.
- Notwithstanding weak industrial output data, car sales across Europe continued to rise in June. The year-on-year increase was somewhat lower than the surge reported in May but was still a respectable 5.8%. Most major markets reported growth although the increase was only 0.8% in France and there was a 0.8% decline in the UK. Comparing sales in the first half of 2016 with the same period last year shows growth of 9.1%.

Internal and external security issues sap consumer confidence in Europe

Industrial confidence indicator

	Apr	May	Jun
Germany	-4.3	-3.2	-2.4
Spain	-2.2	-4.2	-2.1
France	-3.5	-3.7	-5.0
Italy	-2.6	-2.5	-2.4
UK	-6.4	-1.4	1.3
EU	-3.7	-3.4	-2.3

European car sales (th)



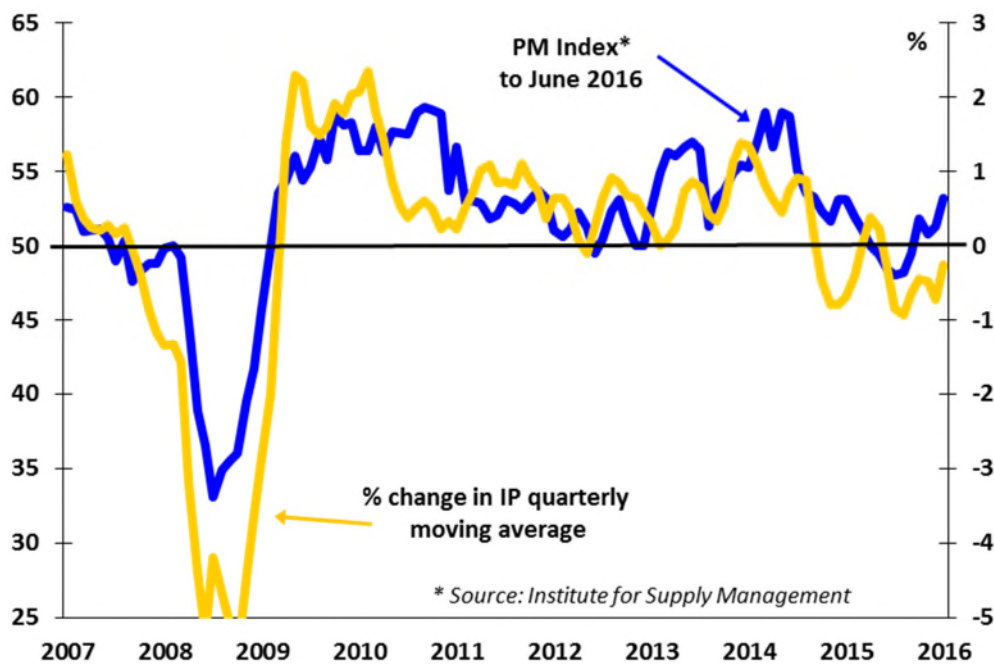
US REPORTS THIRD CONSECUTIVE QUARTER-ON-QUARTER OUTPUT DECLINE IN Q2

- US industrial production rose by 0.6% month-on-month in June but this was not enough to offset earlier weakness, with output in Q2 contracting by 0.3% compared with Q1. We note that not only was this the third consecutive quarter-on-quarter decline, but that there has only been one quarter of expansion since Q4 2014. For the past eighteen months, industrial activity can only be described as having been weak with a sharp contraction in oil and gas exploration and exploitation being a key factor. Spending on construction, which recovered quite strongly in 2013 and 2014, saw growth slow markedly in 2015. Latest data show that spending in May was 2.8% higher than a year ago but the pace of growth has weakened since March. Auto production and sales which, again, saw rapid gains in recent years and hit a record high last year, have also begun to slow and there are few who now believe that sales this year will top last year’s record.
- If this all sounds rather gloomy, purchasing managers are not listening. Their closely-watched index rose quite strongly in June and, at 53.2, is at its highest level since February last year. This is not yet a strong enough reading to say that growth rates are set to accelerate, but this survey gives us some confidence that our forecast for modest growth in the current quarter will be met. Moreover, we note that there has been a small improvement in activity related to oil and gas drilling in recent weeks. This has been one of the key industries holding back growth in industrial production over the past eighteen months. The number of active rigs began to fall sharply from the beginning of last year following the slide in oil and gas prices during the second half of 2014. However, the “Rotary Rig Count” may have seen a reversal in this trend in June. While activity levels in this industry are still very low, any improvement, albeit small, means that going forward oil and gas drilling may no longer be a drag on other sectors of the economy which have been growing. This, of course, does depend on oil and gas prices holding current levels which is far from certain.

US monthly housing starts (Annualised in millions)



US Purchasing Managers’ Index* and IP



- However, a consensus is now emerging that has the Federal Reserve raising interest rates just once more before the end of the year, and then only in December. These views appear to be based more on concerns about international developments rather than significant doubts about near-term prospects for the US economy itself. A sharp recovery in nonfarm payroll data in June, after very weak numbers in May,

suggest that the employment situation remains fairly stable, with the economy still adding jobs at a reasonable pace albeit that the rolling 12-month net change is now some way off its cycle peak. This is hardly surprising this far into a business cycle. Unemployment remains low (4.9%) and retail spending was higher both month on month (+0.6%) and year on year (+2.7%) in June. For the time being the Fed need not be concerned about inflation with the year-on-year rate steady at 1.1% over the past quarter. This is still comfortably within the long-term target of around 2%. Given these positive domestic data we have little doubt that the US economy would be well able to absorb a further 0.25% increase in interest rates at any point within the current quarter. But, given the Fed's hesitancy in the past to increase rates, we should probably accept the consensus that a further rate rise is probably off the table until much later in the year.

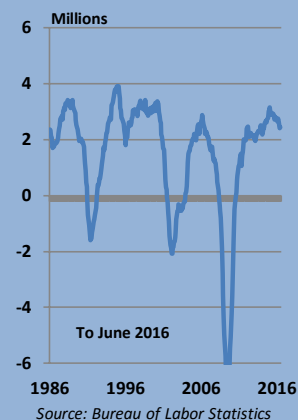
- One clear downside risk that is emerging, just as the negative impact of the sharp slowdown in oil and gas drilling is abating, is in the auto sector. Sales in June, while nominally 2.3% higher than in June last year, were weaker when expressed in terms of a daily selling rate. Sales in H1 were 1.3% higher than in H1 last year but there are few who now believe that sales in H2 will be higher year on year. On the other hand, US auto production rose in June which resulted in a modest increase in inventories. This may be a prelude to production cutbacks through the summer months.
- In **Brazil** output was unchanged month on month in May and we have assumed that there will be higher production in June as work on Olympic venues is completed. This may be enough to lift output in Q2 overall above Q1. However, we also expect a post-Olympic hangover with activity rates falling again in H2. It is very difficult to see how, and when, Brazil will emerge from its current economic crisis.
- **Argentina** reported month-on-month growth of 2% in May following steep falls in each of the previous three months. The country faces many challenges not least very high inflation, 4.2% month on month in May, and interest rates in excess of 30%. However, the new government is gaining credibility and we are forecasting a return to growth in H2.

CHR Economics' global IP growth (% change, year on year)

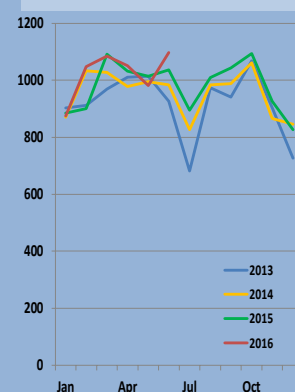
	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
January	8.8	7.0	1.8	0.7	1.9	1.7	-0.3	1.4	0.4
February	10.0	5.9	2.4	0.5	1.9	1.4	0.0	1.2	0.1
March	11.2	4.3	2.5	1.0	1.9	1.3	0.1	1.1	-0.4
April	10.9	3.6	2.8	1.1	2.4	1.0	-0.3	1.3	-0.7
May	10.9	3.7	2.5	0.4	2.8	0.2	0.1	1.4	-1.0
June	9.9	4.1	2.0	0.2	3.2	0.3	0.5	1.4	-1.3
July	9.1	4.4	0.9	1.1	3.0	0.0	0.4	1.3	-1.8
August	8.5	4.1	0.7	1.7	1.8	0.8	0.6	1.2	-1.6
September	7.5	3.8	0.4	2.5	1.9	-0.1	0.7	1.1	-1.4
October	7.4	2.2	1.8	2.1	1.6	0.5	0.9	1.0	-1.0
November	7.4	2.0	1.3	2.7	1.6	-0.6	1.1	0.8	-0.8
December	7.1	2.6	0.6	2.3	2.0	-1.2	1.4	0.6	-0.6
Year	9.0	3.9	1.6	1.4	2.2	0.4	0.4	1.1	-0.8

Industrial production data sources: OECD and national statistical agencies

Cumulative 12-month net change in non-farm payroll



US vehicle production (th)



Annual and quarterly IP growth compared with year earlier

	Annual							Quarterly									
	2011	2012	2013	2014	2015	2016	2017	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16
North America	3.2%	2.5%	1.7%	3.0%	0.3%	-0.5%	1.8%	3.4%	3.3%	2.2%	0.1%	0.2%	-1.4%	-1.2%	-0.8%	-0.7%	0.9%
Canada	4.9%	0.0%	1.6%	3.9%	-0.8%	0.8%	1.9%	3.8%	2.5%	0.6%	-2.5%	-0.2%	-0.9%	0.4%	1.6%	0.3%	1.1%
Mexico	3.5%	2.8%	-0.4%	2.6%	1.0%	0.6%	2.6%	2.9%	2.9%	1.7%	0.8%	1.2%	0.3%	0.8%	0.1%	0.2%	1.4%
USA	2.9%	2.8%	1.9%	2.9%	0.3%	-0.7%	1.7%	3.4%	3.5%	2.4%	0.4%	0.1%	-1.6%	-1.6%	-1.2%	-1.0%	0.8%
Europe	4.2%	-0.8%	0.1%	1.3%	0.7%	1.5%	1.9%	0.8%	0.8%	1.0%	0.6%	0.9%	0.4%	1.0%	1.3%	1.7%	2.0%
Austria	5.2%	1.7%	0.7%	-0.3%	0.6%	2.6%	1.9%	-2.2%	-1.4%	-0.4%	-0.2%	1.7%	1.5%	1.9%	2.7%	2.9%	3.1%
Belgium	4.0%	-2.1%	1.0%	0.9%	0.0%	3.3%	1.2%	0.0%	-1.6%	-0.1%	-1.5%	0.3%	1.2%	4.1%	3.0%	3.4%	2.8%
Bulgaria	6.0%	-0.2%	0.2%	1.5%	2.8%	1.9%	2.4%	-0.2%	0.7%	1.7%	4.1%	3.2%	2.3%	2.6%	0.8%	2.4%	1.9%
Czech Rep	5.9%	-0.7%	0.1%	4.9%	4.8%	2.8%	2.8%	2.9%	4.3%	4.9%	5.4%	6.0%	2.9%	3.3%	1.3%	2.9%	4.0%
Denmark	1.9%	0.1%	0.4%	0.9%	1.1%	2.9%	2.0%	2.3%	0.8%	0.6%	4.5%	1.4%	-2.0%	2.2%	1.2%	2.5%	5.8%
Finland	1.9%	-1.6%	-3.2%	-1.9%	-1.0%	0.1%	2.2%	-2.3%	-1.6%	-2.4%	-1.1%	-0.3%	-0.3%	0.3%	0.0%	0.0%	0.4%
France	3.0%	-2.3%	-0.4%	-0.8%	1.7%	0.4%	1.6%	-0.2%	-0.9%	1.4%	1.7%	1.4%	2.2%	0.4%	0.5%	0.4%	0.5%
Germany	7.3%	-0.4%	0.1%	1.3%	0.9%	1.3%	1.3%	0.5%	0.9%	0.5%	1.6%	1.6%	-0.2%	1.4%	0.6%	1.1%	2.0%
Greece	-5.7%	-2.0%	-3.1%	-1.9%	0.6%	1.0%	2.7%	-2.7%	0.3%	2.3%	-3.1%	1.3%	2.0%	-0.8%	3.5%	1.3%	0.0%
Hungary	5.7%	-1.3%	1.4%	7.2%	7.2%	2.8%	4.3%	6.9%	4.5%	8.1%	5.9%	5.8%	8.8%	0.8%	3.0%	4.1%	3.3%
Ireland	5.9%	-0.9%	1.3%	6.3%	9.7%	-0.7%	2.3%	6.3%	11.5%	13.4%	12.2%	10.6%	3.0%	1.8%	-2.7%	-3.6%	2.2%
Italy	1.3%	-6.2%	-3.0%	-0.6%	0.9%	1.1%	0.7%	-0.9%	-1.1%	-0.3%	0.7%	1.8%	1.5%	1.7%	0.8%	0.7%	1.0%
Luxembourg	2.2%	-5.1%	-3.0%	3.9%	1.6%	2.4%	3.1%	3.6%	1.0%	2.4%	2.2%	1.0%	0.8%	1.4%	2.0%	3.3%	3.0%
Netherlands	-0.5%	-0.5%	0.5%	-2.8%	-3.3%	3.2%	1.8%	-0.6%	-3.0%	1.4%	-6.2%	-5.8%	-2.3%	-1.8%	4.7%	5.8%	4.4%
Norway	0.9%	2.8%	3.8%	3.1%	-3.5%	-2.7%	1.1%	2.9%	4.2%	1.5%	-2.3%	-5.6%	-7.4%	-6.5%	-3.8%	-1.0%	0.9%
Poland	6.8%	1.2%	2.6%	3.2%	4.5%	4.1%	3.2%	1.6%	2.6%	5.0%	4.2%	3.8%	4.9%	2.5%	4.3%	5.4%	4.4%
Portugal	-0.9%	-6.1%	0.5%	1.6%	1.8%	1.4%	3.1%	1.6%	-0.3%	0.3%	2.2%	2.5%	2.2%	0.8%	0.3%	1.5%	2.9%
Romania	7.7%	2.8%	7.3%	6.3%	3.0%	1.7%	3.3%	4.5%	3.5%	3.2%	3.1%	3.3%	2.5%	-0.6%	2.2%	2.1%	2.9%
Russia	5.0%	3.1%	0.7%	1.7%	-3.1%	0.6%	2.8%	1.5%	1.8%	-0.5%	-4.1%	-3.7%	-4.2%	-1.6%	0.8%	1.4%	1.8%
Slovak Rep.	5.4%	7.6%	4.1%	8.7%	6.9%	4.5%	3.3%	8.4%	10.0%	12.3%	4.8%	5.9%	5.1%	2.0%	5.9%	5.5%	4.6%
Spain	-1.5%	-6.6%	-1.6%	1.2%	3.2%	2.0%	2.7%	0.7%	0.6%	1.7%	3.1%	3.9%	4.2%	2.8%	1.7%	1.8%	1.9%
Sweden	2.5%	-1.1%	-4.7%	-1.7%	2.7%	2.9%	1.8%	-3.2%	-1.7%	-2.9%	3.9%	5.0%	5.1%	5.4%	1.9%	2.5%	1.9%
Switzerland	3.5%	2.6%	0.8%	0.7%	-1.7%	3.0%	2.7%	-0.3%	-0.6%	0.2%	-1.1%	-1.5%	-4.5%	1.0%	1.7%	4.4%	5.1%
Turkey	10.0%	2.5%	3.4%	3.5%	3.1%	3.0%	3.1%	3.5%	2.0%	1.4%	3.4%	3.2%	4.4%	4.6%	2.4%	2.4%	2.4%
UK	2.2%	-1.4%	-1.1%	2.7%	-0.3%	0.5%	0.3%	2.8%	2.7%	1.0%	-0.1%	-1.1%	-1.1%	-1.1%	1.1%	1.2%	0.9%
Ukraine	8.0%	-0.7%	-4.3%	-10.1%	-13.0%	0.6%	6.1%	-15.6%	-16.1%	-20.5%	-19.5%	-7.5%	-3.5%	3.9%	1.4%	0.9%	-3.1%
Asia																	
China	9.2%	6.4%	3.7%	3.8%	1.3%	0.8%	-2.6%	5.8%	3.6%	4.2%	1.8%	-0.7%	-0.1%	1.7%	0.4%	0.9%	0.0%
Asia ex China	1.6%	1.5%	1.0%	2.1%	0.6%	0.4%	2.1%	1.3%	0.8%	0.6%	0.7%	1.2%	0.1%	-0.5%	0.0%	0.7%	1.5%
Japan	-2.8%	0.1%	-0.6%	1.9%	-1.3%	-1.6%	0.7%	-0.5%	-1.4%	-2.5%	-0.9%	-0.5%	-1.4%	-3.3%	-2.0%	-0.6%	-0.4%
Hong Kong	0.9%	-0.9%	0.1%	-0.3%	-1.5%	-1.7%	-2.5%	-1.6%	-3.8%	-1.7%	-1.5%	-1.7%	-1.1%	-1.4%	-1.9%	-1.5%	-2.1%
India	4.8%	0.7%	0.5%	1.8%	3.3%	1.5%	4.6%	1.2%	2.2%	3.4%	3.2%	4.6%	1.8%	0.3%	0.0%	1.0%	4.7%
Indonesia	4.1%	4.1%	6.0%	4.6%	4.7%	2.7%	2.5%	5.9%	5.0%	4.3%	6.0%	3.7%	4.9%	3.7%	2.2%	3.5%	1.5%
Israel	2.2%	5.0%	-1.4%	1.0%	1.8%	0.8%	2.2%	2.3%	1.1%	2.2%	3.2%	0.5%	1.3%	-1.4%	1.4%	2.7%	0.7%
Korea	6.0%	1.7%	0.6%	0.6%	-0.9%	-0.3%	1.3%	1.1%	-1.5%	-1.8%	-1.7%	0.1%	0.0%	-0.2%	0.4%	-1.2%	-0.2%
Malaysia	1.2%	5.4%	3.3%	5.1%	4.4%	3.4%	3.4%	4.2%	5.7%	6.4%	4.2%	4.5%	2.5%	3.6%	2.6%	3.4%	3.9%
Philippines	1.1%	7.7%	14.0%	7.9%	1.6%	9.9%	3.7%	6.9%	7.7%	4.3%	-1.1%	0.7%	2.8%	18.8%	10.8%	8.8%	3.1%
Singapore	7.9%	0.2%	1.5%	2.7%	-4.9%	2.4%	2.7%	1.9%	-1.6%	-4.0%	-4.1%	-5.9%	-5.6%	-1.4%	2.2%	3.1%	5.7%
Taiwan	5.0%	-0.4%	0.3%	6.3%	-1.7%	-1.6%	-1.8%	7.8%	7.4%	4.9%	-0.9%	-4.4%	-6.1%	-5.0%	-0.4%	0.2%	-1.0%
Thailand	-8.6%	11.0%	2.3%	-5.2%	0.4%	0.9%	2.8%	-5.7%	-2.9%	0.6%	-0.3%	1.1%	0.2%	-0.9%	2.0%	1.7%	0.8%
South America	2.9%	-2.1%	1.6%	-2.1%	-4.8%	-4.5%	1.4%	-2.6%	-2.6%	-4.1%	-3.6%	-5.0%	-6.4%	-6.4%	-5.3%	-3.9%	-2.1%
Argentina	6.5%	-7.8%	0.0%	-1.8%	0.1%	-3.2%	2.7%	-2.1%	-0.9%	-1.8%	0.9%	1.9%	-0.6%	-0.7%	-5.5%	-4.5%	-1.8%
Brazil	0.5%	-2.7%	2.2%	-2.9%	-8.2%	-7.7%	1.5%	-3.6%	-3.2%	-5.6%	-6.2%	-9.3%	-11.8%	-11.6%	-8.4%	-6.7%	-3.8%
Chile	5.4%	7.1%	0.4%	-1.2%	-0.6%	0.5%	-0.4%	-1.7%	0.3%	-0.4%	-0.2%	0.5%	-2.2%	-1.2%	0.4%	0.5%	2.2%
Colombia	4.9%	-0.3%	-1.3%	2.0%	0.6%	4.1%	-0.3%	1.8%	1.2%	-1.4%	-1.0%	1.4%	3.2%	5.6%	6.4%	3.2%	1.4%
Peru	8.6%	0.9%	4.9%	-3.7%	-1.7%	-3.6%	2.9%	-3.7%	-10.0%	-5.1%	-0.3%	-2.3%	0.9%	-3.4%	-7.3%	-1.3%	-2.2%
Others																	
Australia	1.1%	3.4%	2.0%	4.6%	1.5%	5.0%	2.2%	4.8%	3.8%	2.0%	0.1%	1.9%	2.1%	4.9%	6.3%	4.1%	4.6%
New Zealand	-2.3%	0.5%	1.8%	3.0%	0.8%	0.8%	1.9%	4.2%	2.6%	0.1%	1.1%	1.3%	1.0%	1.3%	1.0%	0.0%	0.9%
South Africa	2.6%	2.3%	1.3%	0.1%	0.0%	1.4%	2.5%	-1.4%	0.2%	0.7%	-2.0%	2.1%	-1.0%	-0.6%	2.1%	1.5%	2.5%
OECD	2.8%	0.5%	0.6%	2.1%	0.5%	0.4%	1.6%	1.8%	1.5%	1.0%	0.5%	0.7%	-0.2%	-0.2%	0.2%	0.4%	1.3%
Non-OECD	5.8%	3.4%	2.5%	2.3%	0.3%	0.5%	0.4%	2.9%	2.1%	2.1%	0.5%	-0.5%	-0.9%	0.2%	0.0%	0.7%	0.9%
Global	3.9%	1.6%	1.4%	2.2%	0.4%	0.4%	1.1%	2.2%	1.7%	1.5%	0.5%	0.2%	-0.5%	-0.1%	0.1%	0.5%	1.1%

Monthly IP growth year on year

	Monthly												
	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16
North America	0.0%	-0.4%	0.2%	0.5%	-0.2%	-0.5%	-1.7%	-1.9%	-0.9%	-1.0%	-1.6%	-1.1%	-0.9%
Canada	-2.8%	-2.6%	-0.5%	1.5%	-1.6%	-1.8%	-0.4%	-0.5%	0.8%	0.2%	0.0%	1.3%	1.9%
Mexico	0.1%	0.6%	1.0%	1.2%	1.4%	0.8%	0.0%	0.0%	1.4%	0.6%	0.3%	-0.9%	0.4%
USA	0.4%	-0.2%	0.3%	0.4%	-0.3%	-0.5%	-2.1%	-2.3%	-1.4%	-1.4%	-2.0%	-1.4%	-1.4%
Europe	0.7%	0.9%	0.5%	1.3%	0.8%	1.1%	0.9%	-0.6%	1.7%	0.9%	0.3%	1.7%	1.1%
Austria	0.6%	-1.1%	2.2%	2.3%	0.6%	1.9%	3.3%	-0.6%	1.6%	0.6%	3.4%	2.1%	2.7%
Belgium	0.4%	-4.2%	0.6%	1.6%	-1.1%	1.5%	2.7%	-0.5%	5.3%	5.6%	1.2%	2.3%	1.7%
Bulgaria	4.9%	5.1%	3.6%	4.3%	1.7%	1.9%	2.3%	2.6%	2.1%	2.6%	3.0%	2.6%	-0.9%
Czech Rep	5.6%	5.9%	7.2%	7.6%	3.5%	6.1%	3.0%	-0.4%	4.0%	1.8%	4.0%	1.3%	1.3%
Denmark	0.7%	10.7%	1.4%	1.8%	1.2%	-2.0%	-3.3%	-0.8%	5.0%	3.4%	-1.7%	1.1%	3.8%
Finland	-2.4%	1.0%	0.1%	-1.3%	0.2%	-1.5%	-0.7%	1.3%	-0.7%	2.6%	-1.1%	1.7%	1.0%
France	2.5%	2.5%	-0.7%	3.2%	1.7%	3.7%	3.8%	-0.7%	1.7%	0.4%	-0.8%	1.8%	0.5%
Germany	1.9%	2.1%	1.2%	3.0%	0.6%	0.5%	0.0%	-1.2%	2.8%	1.3%	0.3%	1.0%	-0.1%
Greece	-4.7%	-4.8%	-2.2%	3.5%	2.8%	-1.9%	1.9%	6.2%	4.4%	-2.6%	-4.0%	2.8%	3.2%
Hungary	6.3%	5.6%	3.3%	6.5%	7.8%	12.6%	7.0%	7.0%	2.4%	2.0%	-2.1%	5.0%	3.7%
Ireland	12.0%	12.5%	14.8%	9.1%	8.1%	3.1%	6.4%	-0.4%	3.5%	0.3%	1.5%	-1.0%	-4.6%
Italy	2.5%	-0.2%	2.3%	1.4%	1.8%	2.9%	1.7%	-0.1%	3.4%	1.2%	0.5%	1.6%	0.1%
Luxembourg	1.7%	2.4%	-0.2%	4.2%	-0.9%	3.8%	4.3%	-5.4%	2.8%	-0.5%	1.9%	2.0%	1.5%
Netherlands	-7.9%	-3.2%	-4.5%	-8.0%	-5.1%	-1.5%	-2.1%	-3.4%	-3.0%	-3.8%	1.4%	5.8%	6.2%
Norway	-2.3%	-4.2%	-5.7%	-7.0%	-4.0%	-7.9%	-6.4%	-7.9%	-5.6%	-5.9%	-7.9%	-5.3%	-3.0%
Poland	5.1%	5.0%	3.9%	3.3%	4.2%	4.9%	5.6%	4.3%	3.6%	2.8%	1.2%	5.6%	3.7%
Portugal	3.5%	3.2%	3.3%	0.6%	3.5%	4.3%	1.4%	0.8%	0.6%	2.0%	-0.3%	3.4%	-2.0%
Romania	2.6%	2.8%	3.0%	3.7%	3.3%	2.6%	2.6%	2.2%	-0.9%	-0.4%	-0.4%	3.2%	1.6%
Russia	-4.5%	-3.9%	-4.0%	-3.5%	-3.7%	-3.7%	-3.5%	-5.3%	-2.4%	-1.5%	-0.9%	0.6%	0.6%
Slovak Republic	-0.3%	5.3%	10.8%	-0.2%	7.3%	2.2%	6.5%	6.6%	3.0%	2.8%	0.3%	5.7%	8.8%
Spain	3.3%	4.4%	5.3%	2.7%	3.7%	4.1%	4.4%	4.0%	3.4%	2.0%	2.8%	2.6%	1.0%
Sweden	6.1%	3.5%	1.3%	6.0%	7.7%	6.7%	7.2%	1.6%	6.3%	4.8%	5.1%	2.5%	0.9%
Switzerland	7.4%	7.4%	6.2%	6.2%	6.2%	1.6%	1.6%	1.6%	2.7%	2.7%	2.7%	3.4%	3.4%
Turkey	2.3%	4.5%	0.6%	6.0%	2.9%	4.9%	4.0%	4.4%	5.9%	5.4%	2.7%	1.1%	3.9%
UK	0.2%	-0.1%	-1.6%	-1.2%	-0.5%	-0.2%	-1.3%	-1.7%	-0.2%	-1.5%	-1.6%	1.3%	1.7%
Ukraine	-20.0%	-17.4%	-12.7%	-4.8%	-4.4%	-4.7%	-4.3%	-1.5%	-1.4%	7.9%	5.1%	3.7%	0.1%
China	1.5%	-0.4%	-1.3%	0.2%	-1.0%	-0.3%	0.3%	-0.2%	-1.0%	2.0%	4.1%	-1.0%	-0.2%
Asia ex China	1.3%	1.0%	0.5%	1.9%	0.5%	2.5%	-0.2%	-0.3%	0.2%	2.3%	2.3%	-0.4%	1.3%
Japan	-2.6%	0.4%	-0.3%	0.0%	-1.2%	-0.6%	-0.8%	-2.7%	-2.6%	-5.8%	-1.5%	-1.9%	-2.4%
Hong Kong	-1.5%	-1.5%	-1.7%	-1.7%	-1.7%	-1.1%	-1.1%	-1.1%	-1.4%	-1.4%	-1.4%	-1.9%	-1.9%
India	2.4%	4.3%	4.2%	6.1%	3.6%	10.1%	-3.4%	-0.8%	-1.6%	2.2%	0.4%	-1.0%	0.9%
Indonesia	2.6%	6.8%	5.2%	6.1%	0.2%	6.9%	6.1%	1.8%	2.1%	8.2%	0.9%	-0.5%	4.3%
Israel	0.2%	6.0%	2.0%	2.9%	-3.2%	-4.0%	4.9%	3.1%	-0.4%	-3.1%	-0.7%	1.2%	2.7%
Korea	-1.5%	-1.6%	-3.4%	1.3%	2.5%	2.4%	-0.1%	-2.2%	-0.8%	0.6%	-0.5%	-0.9%	2.8%
Malaysia	4.4%	4.2%	6.2%	2.3%	5.1%	4.1%	1.7%	1.8%	3.3%	4.4%	3.2%	2.8%	2.7%
Philippines	-1.5%	-2.6%	-0.8%	0.9%	1.8%	0.4%	3.8%	4.3%	35.6%	12.8%	8.9%	10.5%	9.7%
Singapore	-0.3%	-3.1%	-5.6%	-5.7%	-6.3%	-3.0%	-3.2%	-10.6%	1.5%	-5.6%	0.1%	3.7%	0.5%
Taiwan	-1.8%	-2.2%	-2.8%	-5.4%	-5.1%	-5.5%	-6.1%	-6.7%	-4.2%	-5.5%	-5.3%	-2.4%	2.2%
Thailand	-0.1%	-0.4%	2.9%	0.9%	-0.4%	-1.1%	0.1%	1.6%	-3.4%	-1.6%	2.3%	0.8%	3.0%
South America	-4.3%	-2.7%	-4.2%	-4.7%	-6.0%	-6.9%	-6.9%	-5.5%	-5.8%	-6.7%	-6.6%	-6.3%	-5.1%
Argentina	0.2%	1.5%	2.0%	3.7%	0.1%	-1.7%	-1.4%	1.5%	1.4%	0.2%	-3.7%	-6.7%	-4.3%
Brazil	-6.2%	-5.3%	-8.0%	-9.2%	-10.6%	-11.5%	-12.7%	-11.1%	-11.1%	-13.0%	-10.6%	-9.1%	-8.9%
Chile	-1.2%	0.1%	1.5%	-1.4%	1.5%	-1.6%	-2.2%	-3.0%	-2.8%	-2.7%	2.1%	-0.3%	0.6%
Colombia	-3.2%	3.1%	0.2%	2.5%	1.6%	1.4%	4.9%	3.2%	7.8%	8.1%	1.2%	8.7%	6.5%
Peru	-3.5%	-2.8%	-0.6%	-2.1%	-4.2%	-3.4%	1.4%	5.0%	-4.0%	-0.9%	-5.3%	-14.0%	-5.0%
Others													
Australia	0.1%	0.1%	1.9%	1.9%	1.9%	2.1%	2.1%	2.1%	4.9%	4.9%	4.9%	6.3%	6.3%
New Zealand	1.1%	1.1%	1.3%	1.3%	1.3%	1.0%	1.0%	1.0%	1.3%	1.3%	1.3%	1.0%	1.0%
South Africa	-1.1%	-1.8%	4.5%	1.0%	0.9%	-0.9%	-1.7%	-0.3%	-0.9%	0.9%	-1.7%	1.8%	3.8%
OECD	0.3%	0.6%	0.4%	1.1%	0.5%	0.7%	-0.1%	-1.1%	0.4%	-0.5%	-0.6%	0.2%	0.2%
Non-OECD	0.0%	-0.1%	-0.6%	0.3%	-1.1%	0.2%	-1.4%	-1.4%	-1.2%	0.7%	1.1%	-1.0%	0.1%
Global	0.2%	0.3%	0.0%	0.8%	-0.1%	0.5%	-0.6%	-1.2%	-0.3%	0.0%	0.1%	-0.3%	0.1%

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