

Global Industrial Production Watch

A CHR Economics Publication

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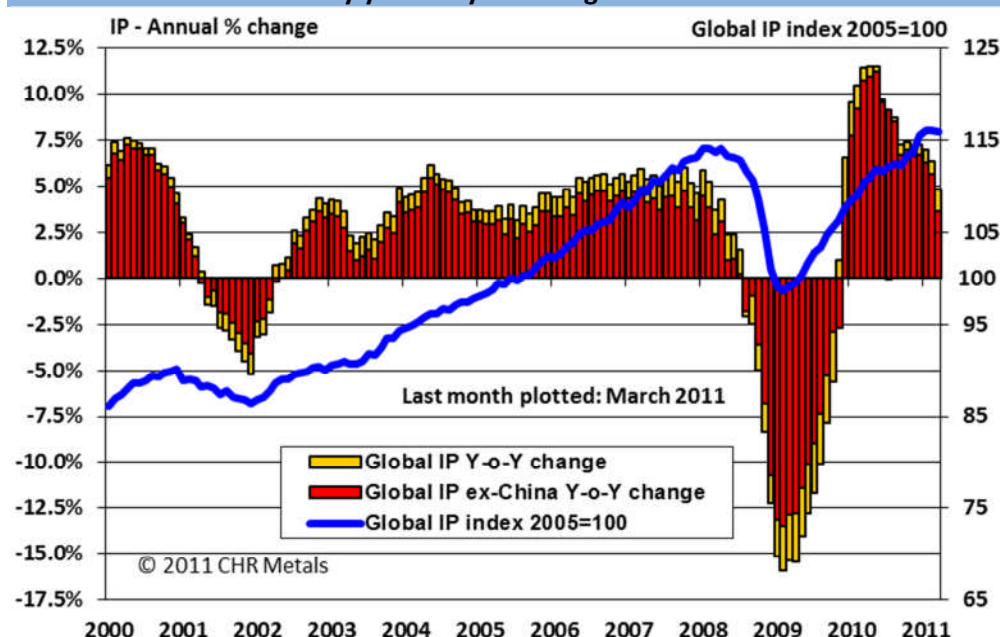
Sharp decline in Japan pulls down global output in March

- Global industrial production (IP) fell 0.1% month on month in March and was unchanged in February. Without the very severe decline in output in Japan as a result of the earthquake, it is likely that global output would have risen by at least 1% in March. Production rose sharply in Asia ex-Japan (+2.3%) and South America (+2.5%). There was also a 0.8% gain in North America, although output in Europe was flat. Global output was 1.7% higher quarter on quarter in Q1, a marginally faster growth rate than in Q4 last year.

THE GLOBAL OUTLOOK

- The US economy is growing, but rather slowly, and concerns are expressed that growth may stall after June with the ending of the Federal Reserve's bond purchase programme (QE2) and/or if politicians fail to find a reasonable compromise to lift the US\$14.3 trillion federal government debt ceiling in time to avoid a technical default and government shut-down. In Europe, there is an increasing risk of default (by any other name) by Greece and then Ireland. This is beginning to gnaw on the nerves of investors and industrial confidence may now be on a downward trend. The impact of the earthquake on Japan was more severe than expected and the recovery is likely to be slower, especially with restraints on the availability of power remaining in place. Given these developments, it is little wonder that many analysts turn to China for better cheer where, despite on-going attempts to slow the pace of activity, growth is proving stubbornly resilient. Indeed, some now hope that the Chinese government is set to ease the various measures introduced to rein in lending and over-investment in fixed assets for fear of precipitating a sharp downturn.

Global IP Index and monthly year-on-year change



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THE GLOBAL OUTLOOK continued

- We believe this to be unlikely as the Chinese authorities are not only trying to limit speculative excesses by restricting lending and lifting interest rates, but they are also trying to rebalance the economy away from reliance on fixed asset investment and export markets for growth. Relaxing controls on bank lending now would undermine this effort by giving a mixed signal as well as risking a much sharper increase in inflation which is both socially unacceptable and economically undesirable. Clearly we are not expecting a renewed acceleration in China to boost global growth and mask difficulties elsewhere.
- But is slower growth in China at this point in the business cycle such a bad thing for the global economy? Almost certainly this is the case for producers of industrial raw materials where prices are supported by speculative funds whose optimism is stoked by the perceived opportunities for continuing strong growth in demand for all commodities in China. For many others, however, less upward pressure on prices, especially where there is no actual shortfall in supply, as is the case in the oil market, would be beneficial, easing concerns about inflation and limiting the need for further increases in interest rates. Slower growth in China, especially if it is at the expense of some of its export industries, would also offer opportunities for others to compete in the global market and, perhaps, on more equal terms. Unfortunately, in many sectors, China's competitive edge in export markets has been dependent on poor conditions for employees and scant regard for the environment.
- Latest data have caused us to revise down our forecast for global growth in 2011 to 5.6% from 5.9% previously, although there has also been a small upward revision in growth last year to 9.2%. Changes to the 2011 forecast mainly reflect developments in Japan and North America. And, notwithstanding our comments above, we still expect robust growth in China this year, albeit a little slower than in 2010.

Unlikely that China will loosen policy in near term

More moderate growth in China could benefit economies elsewhere

Forecast global IP in 2011 revised down to 5.6%

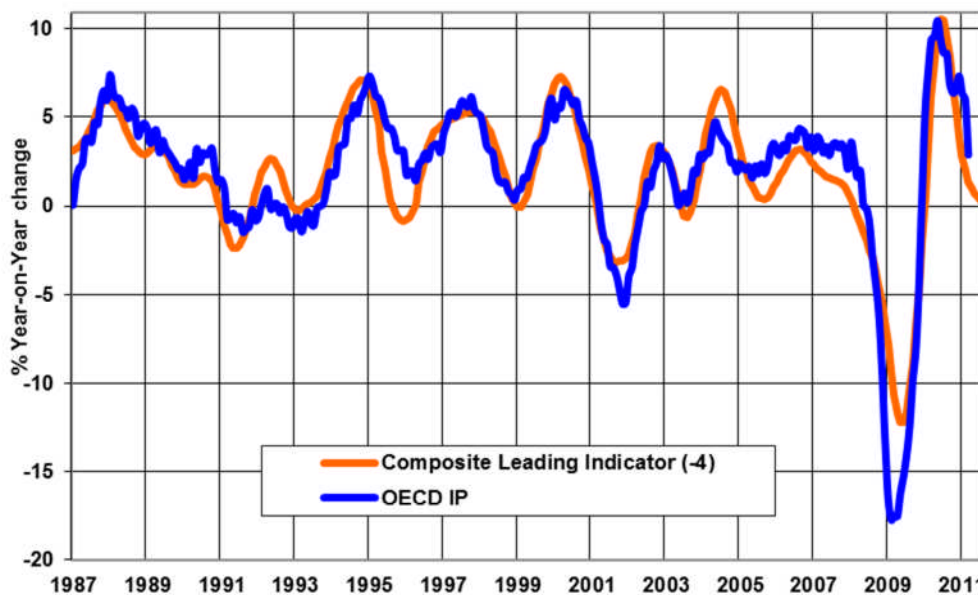
Annual & quarterly IP growth, actual and forecast

	Annual		Forecast		Quarter on quarter						Forecast		
	2009	2010	2011	2012	Q1 10	Q2 10	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11	
North America	-10.7%	5.4%	4.6%	2.0%	2.0%	1.7%	1.4%	0.7%	1.4%	1.2%	1.0%	0.6%	
Canada	-10.7%	6.0%	4.7%	1.8%	2.8%	2.0%	0.5%	0.1%	2.6%	1.0%	0.8%	0.2%	
Mexico	-7.1%	6.0%	4.7%	2.2%	1.7%	1.6%	0.7%	0.6%	2.2%	1.0%	0.7%	0.4%	
USA	-11.2%	5.3%	4.6%	2.0%	2.0%	1.7%	1.6%	0.8%	1.1%	1.2%	1.0%	0.7%	
Europe	-12.9%	7.1%	5.5%	3.3%	2.1%	2.5%	0.6%	1.9%	1.4%	1.2%	0.9%	0.9%	
France	-12.4%	5.1%	4.4%	3.1%	2.0%	1.7%	0.3%	0.8%	2.1%	0.9%	0.7%	0.6%	
Germany	-16.4%	10.8%	8.0%	2.7%	2.3%	5.1%	1.8%	3.0%	1.8%	1.4%	0.8%	0.7%	
Italy	-18.7%	6.5%	1.2%	1.6%	2.8%	1.7%	1.2%	-0.6%	-0.1%	0.6%	0.5%	0.4%	
Russia	-9.3%	8.3%	6.5%	4.5%	2.8%	2.1%	-1.0%	2.6%	2.2%	1.5%	1.4%	1.2%	
UK	-10.7%	3.5%	4.1%	2.0%	1.3%	1.5%	0.9%	1.1%	1.1%	1.0%	0.7%	0.6%	
Asia													
Japan	-21.2%	16.1%	-2.3%	4.1%	7.2%	0.7%	-1.0%	-0.2%	-1.8%	-1.6%	1.5%	1.8%	
Asia ex Japan	4.4%	12.6%	8.9%	6.4%	3.0%	1.8%	1.1%	2.5%	3.1%	1.9%	1.8%	1.5%	
China	8.7%	12.1%	10.4%	7.7%	2.1%	1.5%	2.0%	3.4%	3.3%	2.1%	1.9%	1.7%	
India	6.7%	10.5%	6.5%	6.3%	3.6%	0.6%	1.6%	0.1%	2.6%	1.6%	1.5%	1.4%	
Korea	-0.8%	16.6%	9.7%	3.1%	4.8%	4.2%	1.1%	-0.5%	5.9%	1.7%	1.5%	1.2%	
South America	-5.8%	9.0%	4.3%	3.6%	0.3%	2.5%	0.6%	2.0%	-0.6%	2.2%	0.9%	1.3%	
Brazil	-7.2%	9.9%	2.3%	3.7%	2.7%	1.3%	-0.3%	-0.2%	1.1%	0.9%	0.7%	0.4%	
Others													
Australia	-1.6%	4.1%	1.0%	2.4%	1.0%	0.5%	-1.2%	-0.7%	0.9%	0.8%	0.7%	0.6%	
South Africa	-12.7%	4.8%	6.3%	4.4%	1.9%	0.9%	-1.7%	0.8%	4.3%	1.5%	1.1%	1.0%	
OECD	-12.6%	8.0%	4.1%	2.8%	3.0%	2.0%	0.7%	0.9%	1.2%	0.8%	1.0%	0.9%	
Non-OECD	1.0%	11.1%	7.9%	6.1%	2.2%	1.8%	0.8%	2.7%	2.2%	2.0%	1.7%	1.5%	
Global	-7.8%	9.2%	5.6%	4.1%	2.7%	1.9%	0.8%	1.6%	1.6%	1.3%	1.3%	1.1%	

SUMMARY OF LATEST DATA AND CURRENT ESTIMATES

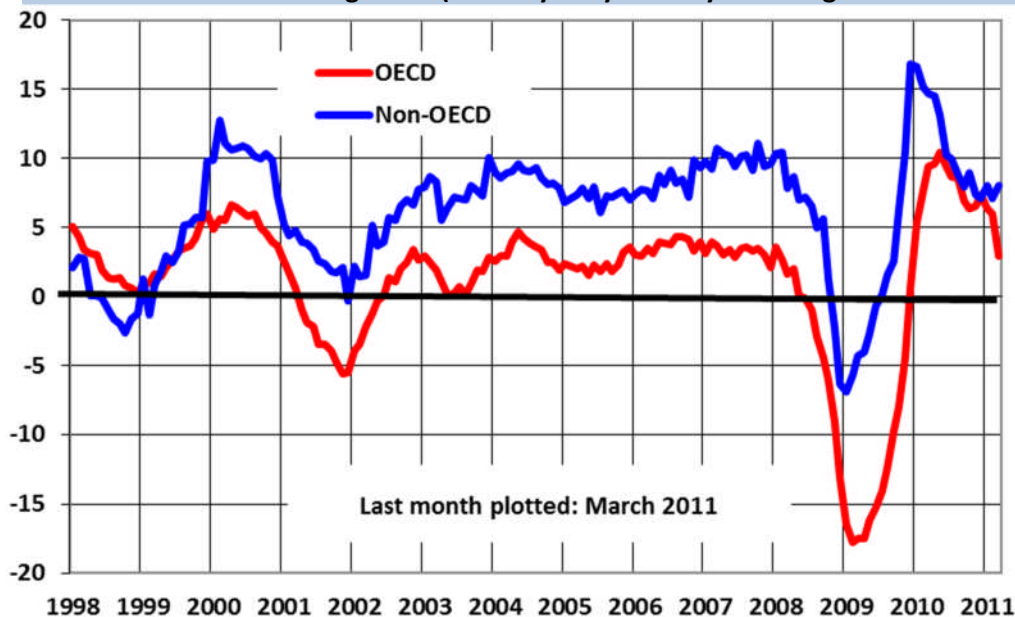
- The two charts below summarise neatly the divergence in OECD and non-OECD output in the wake of the earthquake in Japan. While the slump in Japan dragged OECD output sharply lower, by 1.8% month on month, non-OECD production rose by a remarkable 2.4%. This was the fastest month-on-month increase since June 2009, which was still in the early stages of global recovery. Poor OECD output in March was also not helped by the fact that production was virtually unchanged in Europe, although there was a 0.8% gain in North America. We note also that there has been little change in the absolute value of the OECD leading indicator in the three months January-March which points to rather weak prospects for growth over the next few months. We are not convinced that OECD growth year on year will fall close to zero by the end of the current quarter, an outcome implied by the leading indicator. However, slower growth is a very likely prospect.

OECD composite leading indicator and IP growth



- Non-OECD rose sharply in March helped in no small measure by a very strong performance in India, although there are concerns about the erratic nature of the data month to month. In year-on-year terms, non-OECD growth has settled into the range which prevailed for several years ahead of the global recession.

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



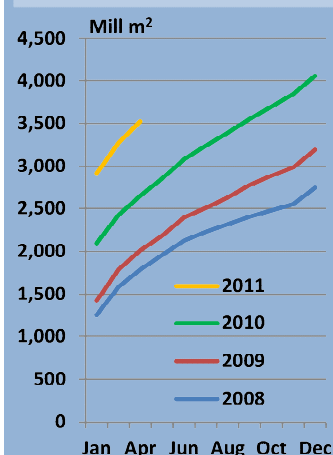
OECD output fell by 1.8% in March

Non-OECD growth year on year has returned to range seen prior to recession

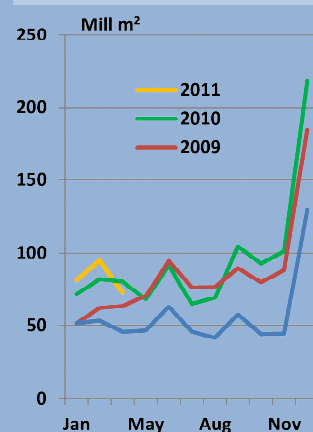
CHINA CONTINUES TO TIGHTEN

- There is much discussion amongst those involved in commodity markets about whether or not the Chinese authorities have now done enough “tightening” to put a cap on domestic inflationary pressures and to moderate growth. The subtext, of course, is that, if the various measures to limit bank lending and control excessive speculation in the property market have already succeeded, then there is little need to worry about any further slowing in China; indeed, there will be a return to business as usual with growth rates likely to accelerate again as the year proceeds. These optimists, anticipating that there was little need for any further check on lending, will have been somewhat surprised by yet another hike in bank reserve requirements last week. Moreover, they have a myopic fixation that growth, in itself, will continue to deliver significant annual gains in demand for all raw materials. What they fail to see is that the Chinese economy remains largely locked into a pattern of growth which is dependent on an unsustainable combination of ever-expanding export sales and investment in fixed assets, especially massive infrastructure projects and real estate. Consumer demand remains a rather weak third leg of the economy. While figures on retail spending appear to show reasonably solid growth (+17.1% year on year in April), albeit perhaps buoyed by an inflation rate higher than acknowledged by the official data (5.3% in April down from 5.4% in March), this has been achieved partly with the aid of subsidies and tax breaks on a range of goods including domestic appliances, e-bikes and cars. Once these artificial props are removed sales growth may stall.
- The Chinese authorities are aware of the need to rebalance the economy. The 12th Five Year plan (2011-2015) has greater emphasis on improving the environment and peoples’ livelihoods rather than simply growing GDP. Whether or not there will be much more success in weaning the economy off investment in fixed assets and export markets in the current plan than in the last remains to be seen.
- China’s National Bureau of Statistics (NBS) reported headline growth in industrial production of 13.4% year on year in April and 14.2% for the first four months. Investment in fixed assets was 25.4% higher in the first four months while investment in real estate was up by 34.3%. Investment in residential buildings was almost 39% higher even though sales appear to have stalled. Our estimate of seasonally-adjusted industrial production shows month-on-month growth of 0.5% in April following an increase of 1.7% in March. NBS reported its own estimates of month-on-month growth in both March (+1.2%) and April (+0.9%). Unfortunately, insufficient data is currently published by the NBS for us to compare directly our seasonally adjusted data with those released by the NBS. However, we note that growth for March and April together was 2.1% for the NBS data compared with our figure of 2.2%. We hope, in due course, that we will be able bring our seasonally-adjusted series into line with that published by the NBS, always assuming that the NBS continues to publish this data. Earlier publication of seasonally-adjusted output data ended without explanation after a few months.
- The value of China’s exports rose sharply in April to set a new monthly record of almost US\$156bn, surpassing the previous highest total of US\$154bn reported in December last year. The value of imports fell in April to US\$144bn, down from the record of US\$152bn in March. The overall strength of exports in April was a surprise given that there was a 7.6% decline in the value of shipments to Japan and a fall of 0.7% to the EU. Shipments to Korea were also lower. These losses were offset by a 2% rise in exports to the USA. We assume that there were also gains in shipments to the ASEAN countries and India but we do not yet have this data.

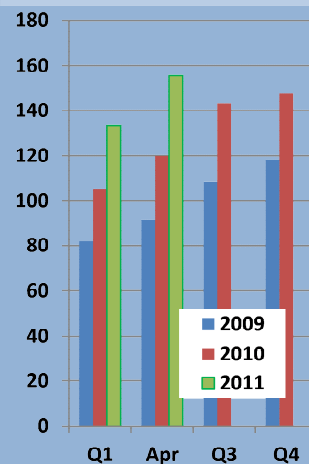
Floor space of commercial buildings under construction



Floor space of commercial buildings sold by month



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

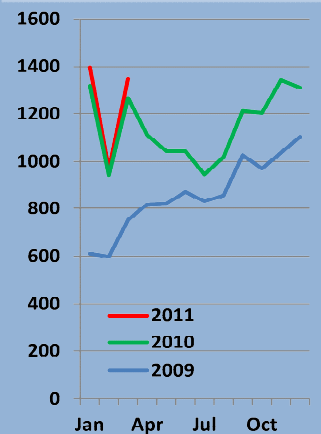


- Although promotion of domestic demand is at the heart government policy, growth in auto sales slowed sharply in the first 4 months of the year. Passenger car sales were around 5% higher year on year in this period while sales of commercial vehicles were up just 1%.

DEVELOPMENTS ELSEWHERE IN ASIA

- The Tōhoku earthquake had a much greater impact on **Japan's** industrial production than we had anticipated. Output is reported to have fallen by 14.9% month on month in March. We believe that restrictions on power supply, as much as physical damage to plant and equipment, were responsible for the loss. Moreover, it is apparent that certain key suppliers of components to the auto and electronics industries did suffer material damage which has had significant implications for the supply chain for these industries both in Japan and globally. It is difficult to forecast how rapidly output will recover. Auto companies are beginning to report an increase in production schedules, especially for operations located abroad, as new arrangements are put in place to source parts affected by losses in Japan. However, all major auto producers do not expect a full return to normal production globally until Q4. As a consequence we have made a further downward revision in our estimate for Japanese industrial production in the current quarter but have lifted growth rates subsequently to reflect an expected boost once reconstruction activity gets fully underway. It is now likely that output will fall overall in 2011, by around 2%, but this does follow growth (revised higher from 15.5% reported last month) of 16.1% in 2010.
- So far there is little sign that problems in Japan have hurt the **Korean** economy. Output rose by 1.4% month on month in March, lifting growth for Q1 as a whole to almost 6% quarter on quarter. Exports have been the key ingredient in this remarkable performance and there is no indication yet that sales are being affected by prospects for slower growth in the major mature economies. In April the value of exports rose to a new record monthly high, 25% higher year on year. Although China is Korea's largest export market, with a 24% share in Q1 2011, growth in exports to China this year is at the lower end of the rate reported for many other major markets. For example, the value of exports to Japan in Q1 was 49% higher year on year, +56% to Taiwan, +43% to Singapore and +37% to India. India is Korea's 7th largest export destination. Uncertainty about the strength of domestic demand and concern that the recovery elsewhere may run out of steam and hit exports meant that the Korean central bank passed up an opportunity to raise interest rates at its last meeting, despite the fact that inflation was 4.2% in April (albeit this is lower than the 29-month high of 4.7% in March). An increase from the current rate of 3% had been widely expected.
- Wholesale price inflation has eased a little in **India**, slipping back to 8.7% in April from 9% in March. However, inflation is expected to speed up again over the next few months if the government sanctions an increase in diesel prices. India's Reserve Bank raised interest rates by a larger than expected 0.5%, to 7.25% in early May and there are many who believe there will be a further 0.25% increase in June. India's reported industrial production surged by 4.3% month on month in March, with a sharp hike in the output of capital goods. Unfortunately, India's monthly output data have been rather erratic at times, so it is probably better to look at the quarter-on-quarter growth rate to see any emerging trend. Output in Q1 was a very solid 2.6% higher than in Q4 last year when growth had stalled. Higher interest rates may be slowing growth in vehicle sales in India but they remain robust, increasing by 22.8% year on year in April.

China; passenger car sales (th)



Earthquake had more severe impact on Japanese output than expected

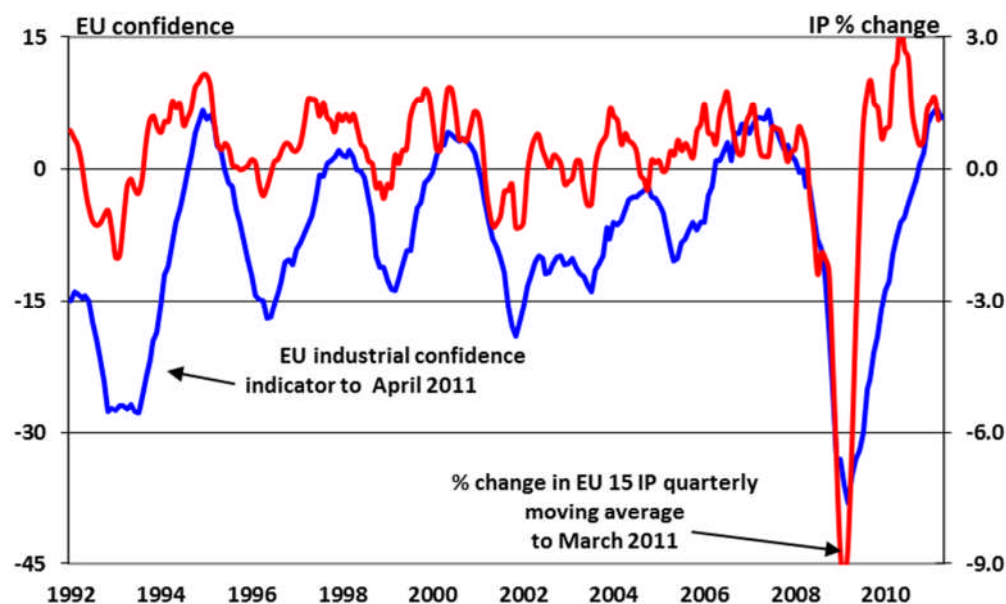
Korean growth very dependent on export markets

Higher interest rates in India likely to slow growth in 2011

SOVEREIGN DEBT ISSUES RETURN TO UNSETTLE EUROPEAN OUTLOOK

- The most recent survey of industrial confidence in Europe reveals the beginning of what we believe will become a weakening trend over several months. Having peaked at a reading of +6.7 in March (equal to a previous high reported as long ago as December 1994), the measure slipped to 5.8 in April. Across Europe industrial production grew by only 0.1% month on month in March following growth of just 0.2% in February. EU15 output was unchanged month on month in March. The major economies reported mixed results for March. There was month-on-month growth of 0.4% in **Germany** and 0.5% in **Italy**. However, the **UK** managed an increase of just 0.2% and output fell by 0.9% in **France** and was sharply weaker in **Spain**, with a loss of 1.8%. Output in **Russia** was more or less unchanged and there was no clear pattern for Scandinavian or Eastern European countries. European industrial production grew by 1.4% in Q1 compared with Q4 last year but much of this increase reflected gains made at the end of 2010 rather than further significant growth in the opening months of 2011.

European Industrial Confidence Indicator



Industrial confidence indicator

	Feb	Mar	Apr
Germany	16	14	14
Spain	-9	-9	-9
France	4	8	5
Italy	1	1	1
UK	6	9	5
EU	7	7	6

- Inflation in Eurozone countries increased to 2.8% from 2.7% in March. The European Central Bank (ECB), having raised interest rates by 0.25% in April, left rates unchanged at its meeting in early May. However, the language used by the bank in justifying its decision leaves little doubt that it believes prices will rise further over the coming months and that interest rates will have to increase again. The recent pull-back in energy costs may provide some relief and stay the bank's hand for another month or two and it will also have to consider the implication of higher interest rates on those countries, especially Greece and Ireland, once again facing heightened scrutiny about their solvency. With inflation already at 4.5% in the UK, the Bank of England may not now have as much room for manoeuvre.
- There is now general acceptance that the bailout packages negotiated by **Greece** and **Ireland** cannot provide a sustainable solution to the problems of their sovereign debt. No-one in official circles is prepared to use the term "default" but this is what, in all but name, is now being discussed, at least in terms of Greek debt. Last month the term of choice was debt "restructuring". Today, a more opaque word is being used to allude to a debt default – "reprofiling". Essentially, bond holders are likely to be asked to extend the terms on Greek debt in conjunction with a package of other measures which could include significant state

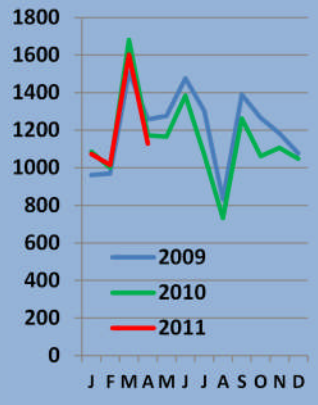
ECB stays its hand in May but further rate rises are expected

Negotiations are underway to improve terms for Greek and Irish bailouts

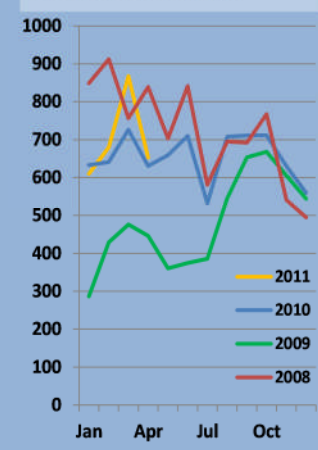
asset sales. This may prove unpalatable in Greece while the idea of extending further concessions to Greece is unpopular in Germany, not least because of the potential effect that this will have on the balance sheets of German banks. Uncertainty about the eventual outcome of these negotiations and the knock-on effect on other countries facing difficulties is undermining confidence in the region and clearly not helpful in terms of prospects for growth. The one positive development is that the value of the euro has slipped over the past two weeks, having touched an 18-month high against the US dollar in early May, which will be a relief to industries dependent on exports.

- Car sales in Europe (EU 27 plus EFTA countries) have been below year-earlier levels for the past 2 months. In March sales were 4.7% lower and were down 3.8% in April. Year to date sales are now 2.4% lower than in 2010. Sales in the region's two largest markets are actually higher year to date, up 10.7% in Germany (although this rally may be running out of steam) and 4% in France. However, markets are much softer in the other major markets of Italy (-19%), the UK (-8.5%) and Spain (-26.3%). Outside of the EU27/EFTA region, very strong sales growth has been reported for the Russian market, up 64% year on year in the first 4 months, putting total Russian sales behind only those in Germany and France. However, the year-on-year comparison is rather flattering as Russia introduced a scrappage scheme only in April last year with sales before this still very depressed.

European car sales (th)



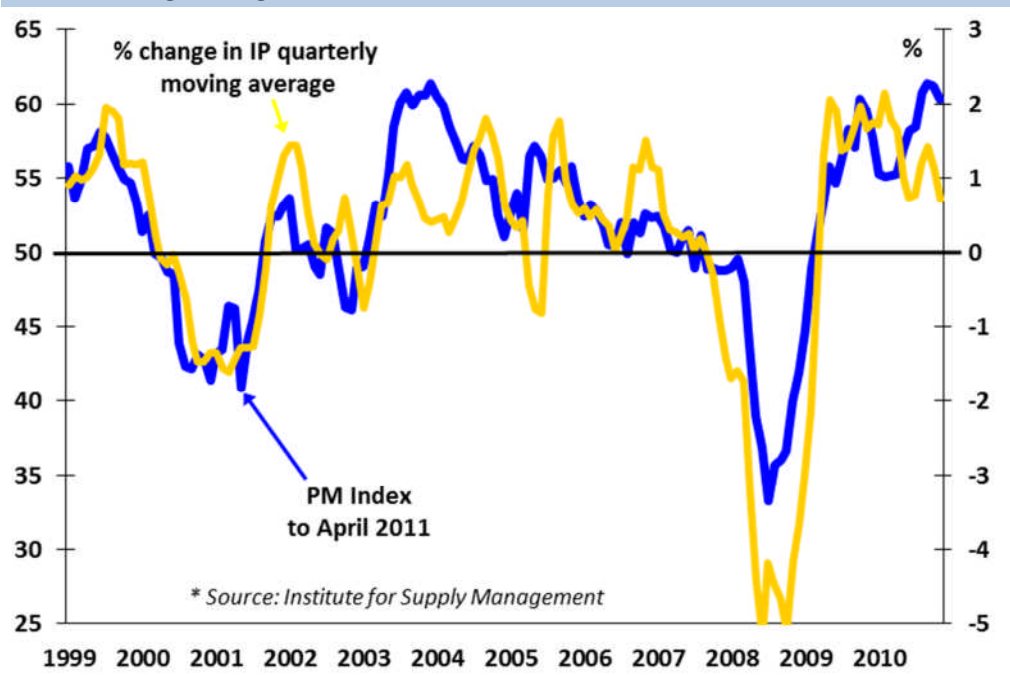
US vehicle production (th)



FALL IN AUTO OUTPUT HOLDS BACK US INDUSTRIAL PRODUCTION IN APRIL

- **US** industrial output was unchanged in April month on month after a parts shortage resulting from the Japanese earthquake caused the annual rate of automotive assembly to fall from 9M units in March to 7.9M units in April. In absolute terms, light vehicle production fell from 868,000 units in March to 653,000 units in April. April's output was just 3.6% higher year on year. On the other hand, auto sales (including imports) remained buoyant in April, up almost 18% year on year. Inventories of cars were down to just 46 days on May 1st, although there was a rather more plentiful supply of light trucks equivalent to 67 days of sales. With the production disruption continuing in May, it is expected that car dealers will remain short of inventory through the month, which will have an impact on sales.

US Purchasing Managers' Index* and IP



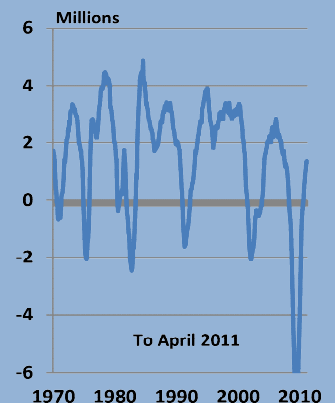
- There is a good explanation for the lack of growth in industrial output in April, but we note also revisions to earlier data, especially the reversal of a 0.1% increase previously reported for February, to a decline of 0.3%. This, together with a smaller downward revision to March data, means growth in Q1 was only 1.1% quarter on quarter rather than 1.5% reported earlier. We expect a recovery in auto output in due course which should provide a boost to industrial production in Q3 but the overall pace of economic activity in the USA remains rather subdued.
- There was a small month-on-month rise in the value of construction put in place in March, with an increase of 1.4%. However, year on year spending was still down 6.7%. Moreover, the small improvement that was detected in the residential sector in March has proved rather ephemeral with new building permits and starts both lower in April than a month earlier. The pace of building starts in southern states fell to a two-year low. On a more positive note, sales of both new and existing homes rose month on month in March although prices are still falling.
- Non-farm payrolls have continued to expand at a fairly healthy rate adding 244,000 in April after 221,000 in March. April's net increase included a gain of 268,000 in the private sector, the largest monthly increase since early 2006. However, the unemployment rate edged up again in April to 9% from 8.8% in March.
- The latest economic data do not indicate that the US economy is building up a head of steam but nor do they suggest that growth is set to stall. Our forecast remains for slow growth over the balance of this year, with little likelihood of any near-term increase in interest rates, especially now there is some evidence of a retreat in energy costs. This may reflect the repositioning of speculative positions ahead of the scheduled end of the Federal Reserve's bond purchase programme (QE2) in June. Ironically, any extension of the programme could rekindle speculation in commodities, further boosting inflationary pressures and advancing the day that interest rates rise. We do expect an increase in due course which will have a negative impact on growth during the course of 2012.
- **Mexican** industrial production unexpectedly fell in March, by 0.2% month on month. Output also fell in February although growth in Q1, quarter on quarter, was still 2.2% after a sharp pick-up at the end of last year and in January. We believe that **Canadian** output recovered in March to offset a 1.6% month-on-month decline in February.

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

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
January	4.4	5.3	5.9	-13.2	9.5	7.0	4.9	3.3	3.2
February	4.4	5.6	5.2	-13.5	10.5	6.4	4.5	3.5	3.1
March	4.8	5.9	3.7	-12.8	11.5	4.9	4.4	3.8	3.4
April	4.4	5.4	4.3	-12.8	11.5	5.3	4.3	4.2	4.2
May	5.5	5.6	2.4	-11.4	11.5	5.2	4.3	4.6	4.5
June	5.2	5.0	2.4	-10.0	9.7	5.6	4.4	4.9	4.8
July	5.4	5.7	1.6	-9.0	9.1	5.7	4.2	5.2	5.1
August	5.6	5.8	-0.3	-7.4	8.7	6.0	3.9	4.8	5.5
September	5.6	5.2	-1.0	-5.3	7.3	5.9	3.6	4.4	5.7
October	5.1	6.0	-3.6	-2.9	7.4	5.7	3.8	4.0	6.0
November	5.4	5.2	-6.8	1.0	6.9	5.4	3.9	3.7	6.3
December	5.7	4.6	-10.7	6.6	7.2	5.0	3.7	3.5	6.0
Year	5.1	5.4	0.2	-7.8	9.2	5.6	4.1	4.2	4.8

Industrial production data sources: OECD and national statistical agencies

Cumulative 12-month net change in non-farm payroll



Source: Bureau of Labor Statistics

There is still little pressure on the Fed to increase interest rates

Annual and quarterly IP growth compared with year earlier

	Annual					Quarterly											
	2008	2009	2010	2011	2012	Q4 08	Q1 09	Q2 09	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11
North America	-3.6%	-10.7%	5.4%	4.6%	2.0%	-8.3%	-12.8%	-14.0%	-10.4%	-5.3%	2.0%	6.8%	7.0%	6.0%	5.3%	4.7%	4.2%
Canada	-5.6%	-10.7%	6.0%	4.7%	1.8%	-6.8%	-10.4%	-13.0%	-12.4%	-6.7%	2.3%	8.0%	8.3%	5.6%	5.3%	4.2%	4.5%
Mexico	-0.4%	-7.1%	6.0%	4.7%	2.2%	-2.5%	-9.4%	-9.5%	-6.7%	-2.4%	5.5%	7.6%	6.5%	4.6%	5.2%	4.6%	4.6%
USA	-3.7%	-11.2%	5.3%	4.6%	2.0%	-9.1%	-13.5%	-14.6%	-10.6%	-5.5%	1.6%	6.5%	6.9%	6.2%	5.4%	4.8%	4.2%
Europe	-1.4%	-12.9%	7.1%	5.5%	3.3%	-9.3%	-16.9%	-16.5%	-12.7%	-4.5%	5.4%	8.7%	6.9%	7.4%	6.7%	5.3%	5.6%
Austria	2.1%	-11.2%	6.7%	8.8%	2.2%	-3.5%	-11.5%	-14.7%	-12.9%	-5.5%	1.0%	8.5%	8.4%	9.0%	11.6%	8.9%	8.7%
Belgium	-0.5%	-13.7%	7.5%	4.4%	2.4%	-7.3%	-16.0%	-16.7%	-13.7%	-7.9%	2.3%	9.2%	8.2%	10.2%	8.8%	3.6%	3.1%
Bulgaria	0.6%	-18.2%	2.0%	6.5%	4.1%	-7.0%	-18.6%	-20.8%	-19.6%	-13.6%	-3.6%	1.4%	5.0%	5.2%	9.5%	6.9%	5.3%
Czech Rep	-2.0%	-13.4%	9.8%	12.0%	6.4%	-12.7%	-17.9%	-19.3%	-13.5%	-1.5%	6.7%	11.0%	10.2%	11.3%	13.7%	12.7%	12.0%
Denmark	-1.2%	-14.8%	1.6%	0.6%	2.6%	-5.1%	-12.1%	-16.2%	-15.0%	-16.0%	-5.6%	2.9%	3.4%	6.1%	1.6%	-0.9%	0.0%
Finland	0.6%	-18.1%	5.1%	2.2%	3.8%	-7.7%	-18.7%	-21.3%	-19.3%	-12.8%	-0.5%	6.2%	6.0%	8.8%	4.7%	2.5%	1.9%
France	-2.8%	-12.4%	5.1%	4.4%	3.1%	-9.4%	-16.1%	-15.7%	-11.9%	-5.0%	4.4%	7.1%	4.3%	4.8%	4.9%	4.1%	4.5%
Germany	0.0%	-16.4%	10.8%	8.0%	2.7%	-7.8%	-20.4%	-19.9%	-16.0%	-8.7%	6.9%	12.8%	10.7%	12.6%	12.1%	8.2%	7.1%
Greece	-0.6%	-9.4%	-5.9%	-3.9%	0.8%	-5.6%	-7.9%	-11.9%	-10.6%	-7.1%	-5.3%	-5.1%	-6.5%	-6.5%	-5.7%	-4.6%	-3.6%
Hungary	-0.7%	-17.7%	10.2%	9.5%	6.9%	-12.4%	-22.0%	-22.2%	-18.0%	-7.4%	6.1%	12.3%	12.8%	9.8%	11.5%	8.5%	7.2%
Ireland	-2.3%	-4.6%	7.5%	-0.8%	2.3%	-7.7%	-1.5%	-0.4%	-7.8%	-8.7%	1.3%	3.6%	10.8%	15.6%	0.3%	-0.6%	-2.7%
Italy	-3.8%	-18.7%	6.5%	1.2%	1.6%	-10.6%	-22.4%	-23.7%	-17.9%	-9.6%	4.4%	9.0%	7.5%	5.1%	2.1%	1.0%	0.3%
Luxembourg	-5.5%	-16.3%	11.2%	8.7%	3.7%	-18.1%	-24.0%	-22.0%	-18.0%	2.3%	15.9%	14.7%	7.0%	7.7%	7.9%	7.5%	11.1%
Netherlands	1.5%	-7.4%	7.0%	0.9%	2.8%	-6.5%	-9.4%	-11.9%	-6.4%	-1.4%	7.6%	10.7%	4.3%	5.8%	0.2%	0.2%	3.0%
Norway	0.2%	-3.6%	-5.5%	-0.9%	2.1%	1.2%	0.5%	-6.4%	-2.9%	-5.3%	-5.2%	-2.9%	-10.1%	-3.9%	-5.7%	-1.8%	5.4%
Poland	2.5%	-3.9%	10.7%	7.6%	6.0%	-6.4%	-11.2%	-6.2%	-2.7%	5.2%	10.8%	10.8%	12.1%	9.3%	8.5%	7.9%	6.6%
Portugal	-4.1%	-8.1%	1.6%	-0.1%	1.6%	-6.8%	-11.8%	-9.0%	-7.0%	-4.3%	3.2%	2.2%	-0.3%	1.1%	0.0%	-0.7%	-0.8%
Romania	2.5%	-4.7%	4.7%	8.7%	5.6%	-6.1%	-11.8%	-6.7%	-3.4%	3.7%	5.3%	4.1%	3.9%	5.6%	10.0%	8.6%	8.9%
Russia	0.5%	-9.3%	8.3%	6.5%	4.5%	-9.1%	-14.2%	-13.6%	-10.1%	2.0%	9.3%	10.9%	6.6%	6.7%	6.1%	5.4%	8.0%
Slovak Rep.	4.9%	-13.0%	20.3%	9.2%	7.0%	-11.4%	-21.0%	-22.2%	-12.6%	6.9%	18.7%	27.5%	17.4%	18.0%	11.6%	8.4%	11.4%
Spain	-7.5%	-15.5%	1.0%	2.5%	3.1%	-16.6%	-21.6%	-18.5%	-14.6%	-5.9%	0.1%	2.6%	0.6%	0.8%	1.4%	1.4%	3.5%
Sweden	-2.9%	-17.8%	8.7%	9.9%	4.4%	-11.7%	-20.3%	-21.5%	-18.4%	-10.2%	1.3%	10.8%	11.3%	11.5%	13.7%	9.5%	8.2%
Switzerland	0.5%	-7.4%	6.1%	3.7%	1.6%	-7.0%	-7.7%	-13.4%	-7.0%	-1.0%	5.4%	8.2%	5.7%	5.3%	4.6%	4.1%	3.3%
Turkey	-0.5%	-10.0%	12.2%	11.4%	4.2%	-12.1%	-21.3%	-15.3%	-8.7%	8.1%	17.3%	13.9%	10.0%	8.3%	11.9%	11.8%	13.5%
UK	-2.8%	-10.7%	3.5%	4.1%	2.0%	-8.3%	-13.7%	-12.2%	-11.1%	-5.5%	1.3%	3.1%	4.8%	5.0%	4.7%	4.2%	4.0%
Ukraine	-3.8%	-23.2%	11.2%	8.1%	7.1%	-25.2%	-31.1%	-32.3%	-24.4%	-0.4%	11.2%	13.3%	9.0%	11.5%	9.7%	8.9%	8.5%
Asia																	
Japan	-3.2%	-21.2%	16.1%	-2.3%	4.1%	-14.4%	-31.3%	-26.2%	-20.0%	-5.0%	26.3%	19.9%	13.0%	6.7%	-2.3%	-4.5%	-2.1%
Asia ex Japan	6.2%	4.4%	12.6%	8.9%	6.4%	-1.4%	-3.9%	1.2%	5.7%	15.2%	18.6%	13.9%	9.9%	8.7%	8.8%	8.9%	9.7%
China	9.9%	8.7%	12.1%	10.4%	7.7%	3.1%	2.2%	5.9%	9.2%	17.5%	17.4%	12.6%	9.6%	9.3%	10.6%	11.3%	11.2%
Hong Kong	-6.5%	-8.3%	3.2%	3.1%	2.5%	-10.7%	-9.6%	-10.1%	-8.7%	-4.6%	0.9%	2.2%	5.4%	4.2%	2.8%	3.5%	2.9%
India	4.8%	6.7%	10.5%	6.5%	6.3%	1.6%	0.9%	4.1%	8.6%	13.1%	15.7%	12.0%	9.0%	6.0%	5.0%	6.0%	6.0%
Indonesia	3.1%	1.4%	4.3%	6.1%	3.7%	1.6%	-1.7%	-0.5%	1.3%	6.7%	4.3%	4.2%	3.7%	4.8%	5.7%	6.5%	8.9%
Israel	6.8%	-6.0%	8.0%	4.2%	3.3%	1.9%	-6.1%	-9.2%	-6.6%	-2.0%	6.0%	14.6%	7.8%	3.9%	4.2%	-0.1%	6.0%
Korea	3.3%	-0.8%	16.6%	9.7%	3.1%	-11.4%	-15.6%	-5.9%	2.5%	18.8%	26.4%	18.8%	12.9%	9.9%	11.1%	8.4%	8.8%
Malaysia	0.5%	-7.4%	7.6%	5.2%	5.3%	-9.1%	-14.4%	-10.8%	-6.5%	2.8%	11.1%	11.1%	4.3%	4.3%	2.6%	3.2%	6.9%
Philippines	0.3%	-12.2%	23.2%	7.7%	5.5%	-6.8%	-22.9%	-17.3%	-12.1%	2.9%	31.0%	27.3%	21.0%	16.4%	13.3%	9.5%	8.5%
Singapore	-4.2%	-4.4%	29.7%	11.7%	3.1%	-10.3%	-23.6%	-1.1%	7.9%	2.7%	37.0%	44.8%	13.0%	26.0%	13.6%	-2.8%	18.2%
Taiwan	-2.2%	-7.8%	26.9%	13.7%	5.1%	-23.5%	-28.8%	-16.6%	-6.1%	29.5%	48.2%	28.6%	18.7%	17.5%	14.5%	14.5%	16.9%
Thailand	4.0%	-7.3%	14.5%	3.1%	5.3%	-9.6%	-21.8%	-10.8%	-6.2%	12.0%	31.6%	17.7%	9.6%	2.7%	-1.3%	1.5%	6.4%
South America	2.8%	-5.8%	9.0%	4.3%	3.6%	-5.1%	-10.3%	-9.4%	-7.0%	3.9%	11.4%	11.5%	7.9%	5.4%	4.5%	4.2%	4.5%
Argentina	5.0%	0.1%	9.8%	7.4%	3.2%	0.7%	-2.5%	-1.2%	-1.2%	5.2%	9.3%	10.1%	9.3%	10.3%	9.4%	8.7%	8.3%
Brazil	2.9%	-7.2%	9.9%	2.3%	3.7%	-7.2%	-13.8%	-11.3%	-8.6%	5.9%	16.4%	13.1%	7.6%	3.5%	1.9%	1.5%	2.5%
Chile	-0.4%	-6.7%	0.4%	8.8%	4.3%	-3.9%	-9.1%	-10.0%	-5.5%	-2.1%	-6.7%	1.7%	4.2%	2.5%	11.6%	10.7%	7.0%
Colombia	-3.0%	-6.0%	4.5%	4.4%	3.7%	-9.4%	-7.7%	-10.2%	-5.4%	-0.4%	3.3%	8.2%	2.9%	4.0%	2.1%	4.4%	6.0%
Peru	9.0%	-6.9%	13.6%	7.9%	3.9%	3.9%	-4.1%	-11.5%	-10.4%	-1.5%	7.5%	16.9%	17.3%	13.0%	10.4%	8.7%	6.6%
Others																	
Australia	3.1%	-1.6%	4.1%	1.0%	2.4%	0.7%	-3.2%	-4.1%	-2.2%	3.3%	6.3%	6.7%	4.2%	-0.4%	-0.5%	-0.2%	1.7%
New Zealand	-0.9%	-7.8%	0.5%	0.5%	1.1%	-7.5%	-10.7%	-9.9%	-8.4%	-1.8%	3.8%	0.9%	0.0%	-2.7%	-2.8%	0.7%	2.6%
South Africa	0.6%	-12.7%	4.8%	6.3%	4.4%	-7.1%	-13.2%	-19.1%	-13.8%	-3.9%	4.3%	8.8%	4.5%	1.9%	4.3%	4.9%	7.9%
OECD	-2.3%	-12.6%	8.0%	4.1%	2.8%	-9.5%	-17.2%	-16.3%	-12.1%	-4.1%	7.4%	9.8%	8.0%	6.7%	5.0%	3.7%	3.9%
Non-OECD	5.0%	1.0%	11.1%	7.9%	6.1%	-2.5%	-5.7%	-2.5%	1.4%	11.1%	15.5%	12.6%	8.9%	7.8%	7.7%	7.9%	8.8%
Global	0.2%	-7.8%	9.2%	5.6%	4.1%	-7.0%	-13.2%	-11.4%	-7.2%	1.4%	10.5%	10.9%	8.4%	7.2%	6.1%	5.4%	5.9%

Monthly IP growth year on year

	Monthly												
	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
North America	3.9%	4.9%	7.5%	8.0%	7.5%	7.1%	6.3%	5.8%	5.7%	6.5%	5.9%	5.1%	5.1%
Canada	4.7%	5.5%	8.8%	9.8%	9.4%	9.5%	6.1%	6.1%	4.4%	6.1%	7.0%	4.1%	4.7%
Mexico	7.3%	6.0%	9.0%	8.0%	5.4%	7.4%	6.6%	4.5%	4.7%	4.7%	6.7%	5.2%	3.6%
USA	3.3%	4.6%	7.2%	7.7%	7.5%	6.8%	6.3%	6.0%	6.0%	6.8%	5.6%	5.2%	5.3%
Europe	7.4%	8.5%	9.6%	7.9%	7.0%	7.8%	6.0%	6.7%	7.2%	8.2%	7.2%	7.5%	5.4%
Austria	1.3%	5.9%	10.9%	8.7%	8.8%	10.5%	6.1%	7.0%	10.4%	9.4%	12.5%	10.6%	11.4%
Belgium	6.9%	8.4%	9.1%	10.0%	6.2%	8.2%	10.3%	10.9%	8.3%	11.3%	11.7%	11.2%	3.6%
Bulgaria	-2.3%	-0.9%	1.2%	4.0%	2.7%	3.8%	8.6%	4.6%	5.3%	5.7%	7.7%	15.9%	5.5%
Czech Rep	6.7%	9.6%	15.5%	8.2%	8.4%	10.1%	12.0%	9.8%	12.5%	11.4%	16.8%	13.2%	11.2%
Denmark	-1.2%	-0.3%	2.8%	6.4%	1.6%	0.1%	8.8%	7.5%	4.2%	6.7%	5.8%	0.6%	-1.3%
Finland	1.7%	0.9%	8.2%	9.6%	3.9%	6.0%	8.1%	10.6%	7.1%	8.7%	5.6%	6.1%	2.5%
France	6.9%	7.2%	8.8%	5.4%	5.4%	3.2%	4.2%	3.4%	4.8%	6.1%	5.5%	5.9%	3.3%
Germany	10.0%	14.5%	13.2%	10.8%	11.9%	11.9%	8.4%	12.7%	11.7%	13.5%	11.8%	13.9%	10.7%
Greece	-3.7%	-5.1%	-5.0%	-5.3%	-7.8%	-2.2%	-9.7%	-7.1%	-7.2%	-5.2%	-5.0%	-4.2%	-7.9%
Hungary	4.3%	10.1%	14.1%	12.5%	12.2%	15.1%	11.1%	8.5%	14.6%	5.9%	10.7%	14.3%	9.6%
Ireland	1.5%	-0.9%	6.3%	5.5%	7.7%	15.5%	9.6%	9.3%	17.6%	20.4%	2.2%	0.7%	-1.8%
Italy	8.3%	9.2%	8.3%	9.4%	6.5%	10.5%	5.6%	3.9%	5.1%	6.4%	0.7%	2.4%	3.1%
Luxembourg	22.2%	18.3%	17.8%	8.4%	12.5%	12.1%	-2.6%	4.9%	9.0%	9.5%	8.2%	7.0%	8.4%
Netherlands	10.0%	13.4%	11.9%	7.0%	5.4%	5.0%	2.4%	6.0%	6.9%	4.4%	0.0%	0.6%	-0.1%
Norway	-5.1%	-4.4%	-0.4%	-3.9%	-6.5%	-12.6%	-11.2%	-2.8%	-5.3%	-3.5%	-6.7%	-6.5%	-3.8%
Poland	11.1%	8.5%	11.4%	12.4%	11.6%	13.0%	11.7%	10.0%	7.0%	11.0%	8.6%	9.8%	7.1%
Portugal	4.1%	0.3%	3.3%	3.1%	1.1%	0.0%	-1.9%	-2.0%	0.9%	4.3%	-0.1%	2.7%	-2.4%
Romania	6.2%	2.8%	5.1%	4.4%	2.7%	5.7%	3.2%	3.0%	4.7%	9.2%	10.5%	12.2%	7.4%
Russia	8.3%	11.1%	12.6%	9.0%	6.9%	7.2%	5.7%	7.4%	6.5%	6.2%	7.0%	6.0%	5.4%
Slovak Republic	20.9%	21.2%	35.6%	26.5%	19.3%	18.6%	14.4%	14.5%	17.2%	22.3%	17.2%	11.1%	6.8%
Spain	4.8%	1.7%	3.2%	2.9%	1.0%	1.2%	-0.6%	-0.4%	2.4%	0.3%	2.3%	2.9%	-0.9%
Sweden	4.8%	7.0%	12.8%	12.6%	14.4%	10.3%	9.3%	9.7%	14.0%	10.9%	12.1%	15.7%	13.3%
Switzerland	5.4%	8.2%	8.2%	8.2%	5.7%	5.7%	5.7%	5.3%	5.3%	5.3%	4.5%	4.5%	4.5%
Turkey	18.5%	16.3%	15.6%	10.0%	8.6%	12.0%	9.3%	2.4%	7.5%	15.1%	14.4%	11.4%	9.8%
UK	3.8%	2.4%	3.5%	3.4%	4.3%	5.6%	4.6%	5.3%	5.1%	4.4%	6.6%	5.0%	2.7%
Ukraine	14.4%	17.6%	13.0%	9.4%	6.8%	9.8%	10.5%	10.6%	10.6%	13.3%	9.6%	11.8%	8.1%
Japan	29.4%	24.9%	19.3%	15.9%	15.0%	13.5%	10.6%	7.4%	6.4%	6.3%	3.0%	2.8%	-12.6%
Asia ex Japan	16.8%	15.8%	13.9%	10.8%	11.4%	9.7%	8.3%	10.0%	7.5%	7.7%	9.2%	7.6%	8.9%
China	15.4%	14.3%	12.8%	10.6%	9.1%	9.6%	10.2%	9.6%	8.2%	10.0%	10.8%	9.9%	11.2%
Hong Kong	0.9%	2.2%	2.2%	2.2%	5.4%	5.4%	5.4%	4.2%	4.2%	4.2%	2.7%	2.7%	2.7%
India	15.5%	16.6%	12.7%	7.1%	14.7%	7.4%	4.9%	12.1%	3.8%	2.4%	3.8%	3.7%	7.3%
Indonesia	3.3%	3.6%	4.0%	5.1%	5.6%	4.6%	0.8%	4.8%	4.6%	5.1%	7.6%	4.3%	5.2%
Israel	8.9%	14.9%	16.4%	12.7%	17.0%	5.2%	1.7%	3.2%	5.0%	3.4%	4.0%	5.2%	3.4%
Korea	22.7%	19.5%	20.6%	16.4%	14.9%	14.2%	9.8%	9.2%	9.8%	10.7%	15.0%	9.5%	8.8%
Malaysia	14.2%	11.6%	12.4%	9.3%	3.4%	3.8%	5.7%	3.2%	5.4%	4.5%	0.6%	5.2%	2.3%
Philippines	25.5%	31.0%	26.1%	25.1%	21.9%	25.6%	15.8%	17.0%	17.1%	15.2%	16.9%	11.3%	12.0%
Singapore	50.9%	48.3%	57.9%	27.4%	8.6%	6.3%	25.5%	31.0%	40.6%	8.6%	11.8%	5.2%	23.4%
Taiwan	37.8%	32.0%	30.1%	23.9%	22.0%	22.7%	11.9%	17.3%	18.3%	17.0%	17.5%	12.5%	13.7%
Thailand	33.4%	23.1%	16.3%	13.9%	12.7%	8.5%	7.7%	6.1%	5.7%	-3.2%	4.5%	-2.0%	-6.1%
South America	12.4%	12.2%	11.5%	10.9%	8.2%	8.7%	6.9%	4.8%	6.2%	5.2%	5.3%	4.5%	3.7%
Argentina	11.1%	9.9%	10.1%	10.2%	8.0%	10.1%	9.8%	8.3%	12.5%	10.2%	10.5%	8.7%	9.0%
Brazil	17.6%	15.1%	13.2%	11.0%	9.1%	7.9%	6.0%	3.3%	4.0%	3.3%	2.4%	3.1%	0.2%
Chile	-17.5%	-1.5%	4.0%	2.7%	3.1%	6.7%	2.8%	1.5%	2.3%	3.7%	3.7%	1.9%	30.8%
Colombia	6.2%	7.6%	8.0%	8.8%	0.9%	4.9%	3.0%	2.9%	4.6%	4.5%	7.2%	2.4%	-2.5%
Peru	15.2%	15.5%	13.7%	21.6%	17.2%	18.8%	16.1%	14.8%	14.7%	9.5%	14.4%	11.0%	6.1%
Others													
Australia	6.3%	6.7%	6.7%	6.7%	4.2%	4.2%	4.2%	-0.4%	-0.4%	-0.4%	-0.5%	-0.5%	-0.5%
New Zealand	3.8%	0.9%	0.9%	0.9%	0.0%	0.0%	0.0%	-2.7%	-2.7%	-2.7%	-2.8%	-2.8%	-2.8%
South Africa	6.6%	8.9%	8.2%	9.3%	6.8%	5.2%	1.4%	1.8%	4.0%	-0.2%	2.3%	5.8%	4.8%
OECD	9.4%	9.6%	10.5%	9.4%	8.6%	8.6%	6.9%	6.4%	6.5%	7.3%	6.3%	5.8%	2.7%
Non-OECD	14.7%	14.5%	13.1%	10.3%	9.9%	8.9%	7.9%	8.9%	7.4%	7.1%	8.1%	7.1%	8.0%
Global	11.5%	11.5%	11.5%	9.7%	9.1%	8.7%	7.3%	7.4%	6.9%	7.2%	7.0%	6.4%	4.9%

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CHR Metals Limited Tel: +44 1483 423868