

Industrial Metals Monitor

Industrial metal prices set to increase in Q1

Group Economics

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- **Current position regional manufacturing PMIs bode well for industrial commodities**
- **Output and demand levels of industrial commodities will remain high**
- **Industrial commodity demand growth in China should remain at healthy levels in 2014**

Table 1: Indicators - Macro-economic data

	GDP (actual)	ABN AMRO GDP (forecast)	PMI (composite)	Consumer prices	Fixed asset investm.
China	7.7%	8.0%	52.3	3.0%	20%
	Q3 (yoy)	2014	November	Nov (yoy)	Q3 (yoy)
Euro-zone	-0.4%	1.3%	51.7	0.9%	-3%
	Q3 (yoy)	2014	November	Nov (yoy)	Q3 (yoy)
US	2.0%	3.2%	56.7	1.0%	8%
	Q3 (yoy)	2014	November	Oct (yoy)	Q3 (yoy)

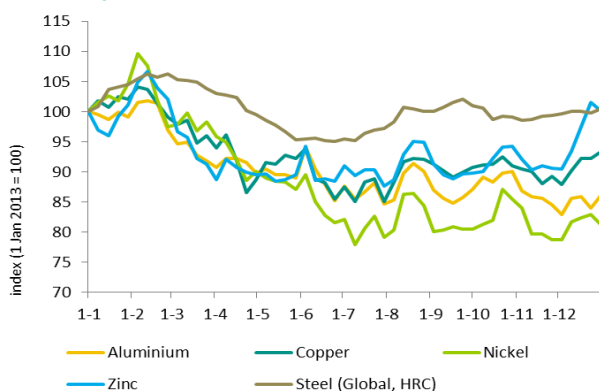
Source: Thomson Reuters Datastream, ABN AMRO

Table 2: Indicators - Metal end-using sectors

	Retail sales (goods)	Construct. sector	Car sales	Industr. prod. (IP)	PMI (manu- facturing)
China	13.7%	10.0%	16.1%	10.0%	50.5
	Nov (yoy)	Nov (yoy)	Nov (yoy)	Nov (yoy)	December
Euro-zone	-0.1%	-2.4%	4.6%	-0.1%	52.7
	Oct (yoy)	Oct (yoy)	Nov (yoy)	Oct (yoy)	December
US	4.7%	9.0%	5.6%	3.2%	57.3
	Nov (yoy)	Nov (yoy)	Nov (yoy)	Nov (yoy)	November

Source: Thomson Reuters Datastream

Figure 1: Industrial Metals Price-indexes 2013



Source: Thomson Reuters Datastream, ABN AMRO

Global economic growth remains on track

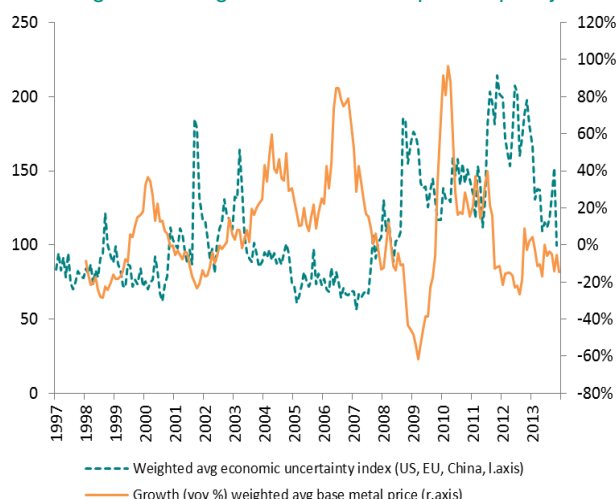
Together China, the eurozone and the US account for an approximate share of 70% share of total consumption of industrial commodities. Table 1 illustrates that the outlook for cyclical metal markets also remains sound going forward. ABN AMRO expects that China, by far the world's biggest industrial metal consumer, will achieve economic growth of 8% yoy in 2014. Increasing export growth and higher domestic consumption will probably contribute most to this target, while the pace of growth in infrastructure investments will gradually decline. In this case we foresee a lower growth path in Chinese demand for industrial metals, which will nevertheless remain high. ABN AMRO expects that economic activity in Europe will manage to expand further during 2014, but the pace will still be moderate. The US economy continues to perform well and growth will accelerate coming year. On balance, the global economy is gaining momentum.

Demand for industrial commodities looks solid

On a global scale, activity in the manufacturing sector increased strongly during Q4. Industrial production in China, the eurozone and the US grew further and business sentiment improved. On the back of the most recent PMI readings in these regions we expect stronger manufacturing output growth going forward. In December, the manufacturing PMI index showed a better outcome in the eurozone, while the index slipped slightly in China. In addition, car sales improved in all major metal-consuming regions. Even the eurozone finally witnessed growth in car sales in October, after a long period of decreasing volumes. Retail sales and the construction sector remain robust in the US and China, while the eurozone still faces some challenges due to lingering austerity programmes. All in all, activity in the manufacturing sector is expanding globally and this bodes well for industrial metals markets.

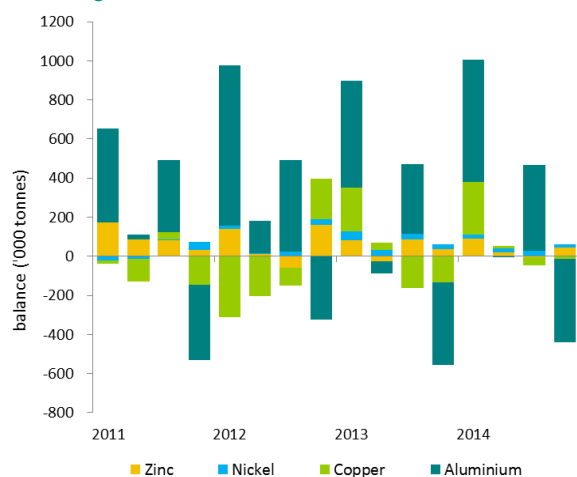
Base metal prices lost ground during 2013

Recent macro-economic developments and data from metal end-using sectors provides a solid base for cyclical metal markets going forward. Looking back, 2013 was not a very good year for industrial commodity prices. Global steel prices essentially stabilised in 2013. Global steel prices started at USD 580/t at the beginning of January and ended at a level of USD 578/t in late December. In the US and Latin America, prices managed to increase from January levels while steel prices in China and Europe decreased on weak demand and overcapacity. In the base metals complex, zinc emerged as the best performing metal in price terms, followed closely by copper. But ultimately, base metals prices decreased compared to their early January levels. Base metal markets were influenced by several non-fundamental factors: geopolitical events (the war in Syria), uncertainty over monetary stimulus measures (Fed), the outcome of the Chinese plenum and other governmental restrictions. Positive macro-economic data from major

Figure 2: Weighted base metals price & policy ¹

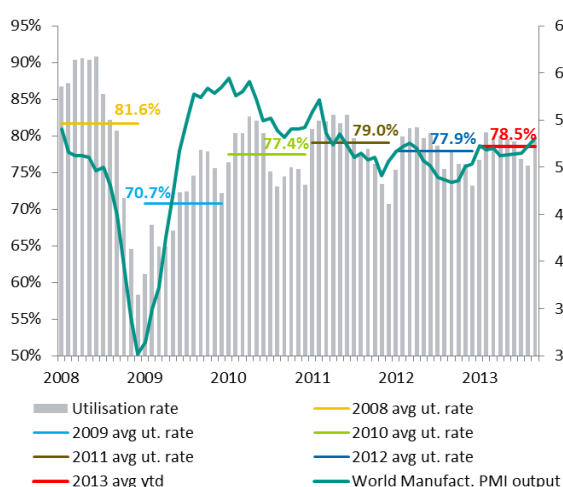
Source: PolicyUncertainty.com, ABN AMRO

Figure 3: S/D-Balance in base metal until 2014



Source: Metal Bulletin

Figure 4: Steel utilisation rates & PMI output



Source: IISI, Markit, Thomson Reuters Datastream

metal consuming countries failed to improve pricing conditions, mainly because the recovery of many economies is still fragile and the general consensus is that challenges remain. Aside from the Fed tapering (starting in January) and overcapacity in metal markets – which will continue to dominate these markets in the coming months – stakeholders are still wary of economic shocks and economic uncertainty.

Oversupply is becoming an issue in all base metal markets

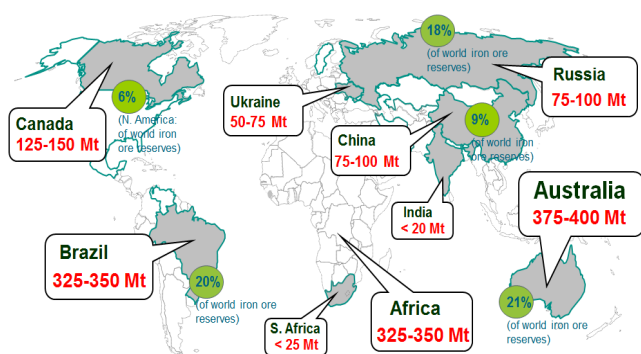
Uncertainty is negative for economic activity in general and ultimately damages economic growth. By contrast, economic activity and growth can be expected to increase in an environment where government economic policy is transparent and provides a clear view for market participants. Figure 2 illustrates the negative correlation between the economic policy uncertainty index and the weighted base metal price. During periods when the index on economic policy uncertainty decreases, the weighted base metal price strengthens and vice versa. A decrease in the index ultimately entails an increase in demand for industrial metals and improved investor sentiment. Since the fall of Lehman Brothers (2008), economic policy uncertainty has increased dramatically, sending the index to historical highs. As a result, volatility in the weighted base metal increased. The current lower levels of the uncertainty index should provide a solid base for industrial commodities demand in the future. So far, demand growth in base metals has been relatively weak, while output growth of refined material has continued. All base metal markets will be oversupplied in 2014, even in copper. However, the global economy will accelerate and in this scenario, cyclical metals markets (such as base metals) are likely to benefit. We therefore expect demand for base metals to remain sound during 2014. We even foresee an improvement in the case of aluminium, which is hampered by chronic oversupply. Although China is adding more capacity by building new production facilities, this should ultimately bode well for market balance. The new facilities are more cost- and environmentally efficient and should replace the existing out-dated and inefficient capacity in due time. Meanwhile, the outlook for the zinc market also remains fundamentally constructive. It is expected that a number of mines will be closed. This, combined with a relatively thin pipeline of new zinc mine projects, sound demand prospects and declining stocks at LME ware-houses, could mean zinc will become the outperformer in the base metal complex.

Output levels of crude steel remain high

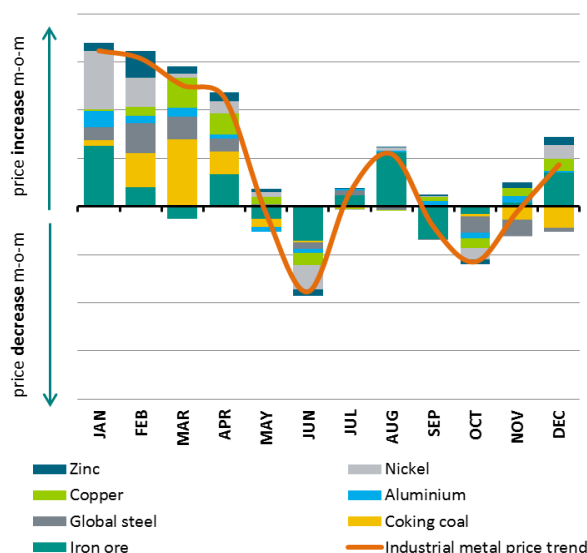
World steel output increased by 3.4% up to November. This increase was mainly due to crude steel production from China, which had a 49.2% share in global steel production until November 2013. Global steel utilisation rates (as displayed in figure 4) are still below their pre-crisis level. Weak demand and overcapacity were the main causes of these relatively low levels. Global steel utilisation rates normally soften in November and December as a result of seasonal weak demand (especially from the construction sector). But in the new year, conditions should turn for the better. The manufacturing output PMI has recently increased strongly, which bodes well for utilisation rates, which are expected to gradually increase again during the first quarter. In the iron ore market, oversupply is a much-discussed topic. We believe oversupply will eventually affect market balance. According to UNCTAD, the total iron ore project pipeline consists of 771 Mt of new production capacity, which is scheduled to come on stream between 2013 and 2015. Of this new capacity, 40% is marked as 'certain', 30% is 'probable' and 30% is 'possible'. This increase in supply can be fully absorbed by the steel industry if production increases sufficiently in the coming years. However, we expect that supply growth in the iron ore market will outpace steel production growth until 2015. If we only take into account the '40% certain' capacity addition, the iron ore supply will grow by 16.5% until 2015 from current levels. Given historic global steel production growth

¹ Weighted base metal price is calculated on the basis of share in total base metal production volume 2012 (for aluminium, copper, nickel, zinc, tin and lead); the following weights have been used: Al 51%, Cu 22%, Ni 2%, Zn 14%, Sn 0.4%, Pb 12%; total stocks represents the sum of Al, Cu, Ni, Zn, Sn, Pb on weekly basis. The weighted uncertainty index is calculated on the basis of GDP.

Figure 5: Projects pipeline iron ore (~next 6 yrs)



Source: USGS, UNCTAD, Mining Journal

Figure 6: Monthly metal price changes on avg ²

Source: ABN AMRO Group Economics

Table 3: ABN AMRO-Forecasts Industrial Metals
(all prices in USD/t)

	Spot rate 1.1.14	Average YTD	ABN AMRO 3 months	ABN AMRO 2014 avg
Aluminium	\$1,755	\$1,755	\$1,815	\$1,950
Copper	\$7,376	\$7,376	\$7,475	\$7,500
Nickel	\$13,832	\$13,832	\$14,850	\$15,500
Zinc	\$2,053	\$2,053	\$2,100	\$2,200
Steel	\$583	\$580	\$590	\$560
Iron ore	\$135	\$135	\$140	\$119
Coking coal	\$140	\$140	\$141	\$135

Source: ABN AMRO Group Economics

data (since 1980), the average yoy steel output increase is 4.3%. According to ABN AMRO, it seems unlikely that steel production will experience a growth path similar to iron ore in coming years, given the relatively weak steel demand growth projections. That said, we think iron ore supply will add pressure on prices until 2016 and we therefore expect a gradual softening in prices during this period. Nevertheless, iron ore spot prices will maintain their relatively high level, which will eventually influence contract prices for iron ore deliveries. Most of the iron ore is sold to steel mills on longer term contracts (quarterly, monthly) and some mills (mainly in China) prefer spot market buying. The long-term contracts are based on the average spot price of the preceding period.

Cyclical metals should benefit from accelerating economy

It is a well-known fact that 'historic results are no guarantee for future performance'. Still, we can certainly draw some interesting conclusions from historic developments. Figure 6 illustrates the tendency of industrial metal prices to rally during certain moments in a 12-month horizon as well as experiencing periods of seemingly lacklustre price movements. The numbers are 'on average', meaning that the price trend shown in the figure will not necessarily repeat itself. Individual industrial metal prices are subject to a wide range of (non)-economic factors and fundamental developments which impact metal markets. This will ultimately dictate the price direction. As illustrated by figure 6, industrial metal pricing strength often occurs in the first four months of the year. From May until November the average price development is more mixed, while industrial metal prices start to strengthen again in December. Having said this, we think the short-term prices for industrial metals will improve from current levels. This view is not only supported by the general price trend, but also by the sharp increases in regional manufacturing PMIs. Such strong increases are typically associated with stronger industrial commodity price levels. In addition, the decreased uncertainty in economic policy in major industrial metal consuming countries (China, the US and Europe) will generally provide a solid base for industrial metal prices going forward.

In the **steel** sector, weak demand in most regions has recently been the primary driver for prices. This is not surprising given that demand is typically weak during Q4. There are, of course, regional differences. In the US and Latin America, prices have strengthened over the last quarter, while prices in Europe and China were generally weak. But fundamentals for the global steel sector are providing some support, with the manufacturing PMI in solid expansion position in most regions. However, given the overcapacity in Europe and China, we don't yet see any significant improvements on the horizon. **Iron ore** prices have rallied since October 2013 on restocking activity in China. As a result, inventories in China are currently high. In the short term we expect some pricing strength on continued restocking in China, ahead of the upcoming New Year celebrations. On the short term, pressures from the supply side could mount, due to worsening weather conditions in Australia in the first few months of 2014. This could lift prices. On the long term, however, we think supply additions will cause iron ore prices to ease again from mid-2014 onward. In the **coking coal** sector, prices have softened lately on increased output and subdued buying activity. Stocks at Chinese ports are high and we do not expect any significant price movements over the next three months, mainly due to lacklustre demand. In 2014, we foresee coking coal prices continuing to soften.

The current high premiums for **aluminium** are an incentive for producers to maintain production levels. We expect premiums to decrease over the coming year due to the new LME warehousing rules. The new rules (which will become effective early 2014) will cut warehouse queues to 50 days. Because this will increase the availability of aluminium for end-users, we do

2) The monthly average price changes is calculated for aluminium, copper and zinc over the past 56 years; for nickel this is 20 years. The monthly average price change in global steel price is calculated over 23 years; in the case of iron ore and coking coal this is 7 years.

not expect any significant price gains for the next three months. In the long run, production cutbacks should restore more balance to the market. This will likely strengthen prices, which we expect to increase slowly but steadily in 2014. Demand for **copper** remains solid, with increasing import demand from China (especially for copper ore) and falling stocks at LME warehouses. On the back of improving market conditions and the sound outlook for copper end-using sectors (such as construction), copper demand will continue to grow further during 2014. However, there is a consensus that the market will be oversupplied over the coming year, which should limit any significant gains in copper prices. Because of the expected surplus in 2014, we have lowered our copper price forecast. We also foresee a rebound in **nickel** prices in 2014. This is not only due to improved sentiment on the back of the global macro-economic recovery, but also because of trade restrictions in Indonesia on exports of (high-grade) nickel ore. This will limit the availability of nickel ore, reduce nickel smelter activity, lower the volumes of refined nickel and ultimately bring the nickel market into more balance. The price of **zinc** has trending higher. Zinc fundamentals are improving slowly. Although the market is currently in surplus, data and forecasts show that a deficit is very likely in the coming years.

China has a very dominant position in industrial commodities, which highlights the importance of monitoring its industrial commodity demand levels. Ultimately, the transformation of China's economic structure to a less investment-driven and industrial commodity-intensive economy will be reflected in import demand levels. Therefore, in due time, this will have an indirect downside effect on future metal demand growth. Still, despite this shift we think industrial commodity demand growth will be sustained at healthy levels, although the pace of growth will be relative lower. However, so far we have not seen any signals of this shift. Import demand for 'the big three bulks' (iron ore, coking coal and copper ore) up to November increased significantly on a yearly basis.

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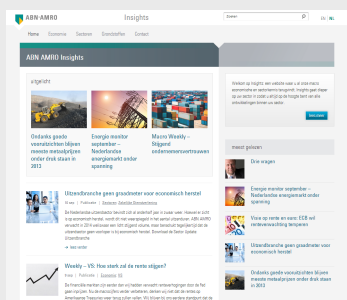
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