

Industrial Metals Monitor

August 2013

Group Economics

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Metals in macro context...

While economic data from the US continue to be encouraging and the recession in Europe seems to have ended, emerging markets are facing disappointing growth rates and concerns about structural weaknesses are mounting. Nevertheless, ABN AMRO remains convinced that the global economy is in the process of an acceleration of growth and that the next six quarters will produce much better data than the previous six. The eurozone economy is set for a gradual recovery, mainly due to the reduction of austerity measures and an increase in global demand growth. Meanwhile, Asian economies continue to show a mixed picture and downside risks have mounted for the region. But Fed tapering fears are dominating industrial metal markets and when the Fed starts tapering its rate of asset purchasing, interest rates are set to increase which will give investors cold feet. Therefore, sentiment is expected to weaken in metal markets. However, other positive fundamental developments will prevent markets from strongly deteriorating. The global manufacturing PMI edged up to 50.8 in July from 50.6 in June. Although the pace might be slow (and still below the long-term average), the index is heading in the right direction. The expansion of industrial activity is also noticeable in the three major metal consuming regions – China, Europe and the US – where the most recent manufacturing PMI readings have increased sharply.

Aluminium - Supply is the problem

Aluminium prices have decreased by 10% since the start of 2013. In the same time period, stocks at London Metal Exchange (LME) warehouses increased by 4%, thus maintaining their relatively high level. Oversupply will remain a heavy burden for the industry, which will limit any strong rebound in market conditions... [More on page 2](#)

Copper - Fundamentally sound

Copper prices decreased by 7% since the start of 2013. But since July, economic indicators from major copper consuming regions (China, Europe and the US) improved significantly and provide a solid base for our copper outlook. Stocks at London Metal Exchange (LME) warehouses are declining again, after a long period of increases... [More on page 3](#)

Steel - US outperforms EU and China

The global average steel price (HRC) has stabilised since the start of 2013. In Europe and China, worries and uncertainties persist in the steel sector, while the US steel sector is performing relatively well. Still, the road ahead remains challenging and overcapacity is the key issue to address. Global steel utilisation rates are still relatively low at 78.9% up to July... [More on page 5](#)

Steel raw materials - Prices recover, but for how long?

The price of iron ore started to recover in June, while coking coal prices picked up from mid-July. However, the price increase was more the result of restocking activity and technical problems at mines than of fundamental gains in real end-use demand. We expect prices for steel making raw materials to soften again during the year on weak steel market conditions... [More on page 6](#)

Notification: This is the last Industrial Metals Monitor in this format. We can look forward to a NEW FORMAT IN SEPTEMBER. - [For more information, turn to page 8](#)

| | Base metals | | | | Ferrous metals | | |
|---|----------------|----------------|-----------------|----------------|----------------|--------------|--------------|
| | Aluminium | Copper | Nickel | Zinc | Steel (HRC) | Iron ore | Coking coal |
| Spot price | \$1,815 | \$7,265 | \$14,104 | \$1,920 | \$579 | \$139 | \$145 |
| Avg month price | \$1,770 | \$6,907 | \$13,750 | \$1,838 | \$559 | \$128 | \$129 |
| Avg year price (ytd) | \$1,886 | \$7,416 | \$15,635 | \$1,918 | \$583 | \$137 | \$149 |
| ABN AMRO price 3 months forecast | \$1,835 | \$7,100 | \$14,200 | \$1,920 | \$561 | \$127 | \$134 |
| ABN AMRO 2013 forecast (avg.) | \$1,900 | \$7,400 | \$15,750 | \$1,950 | \$570 | \$128 | \$144 |

All prices in USD per tonne

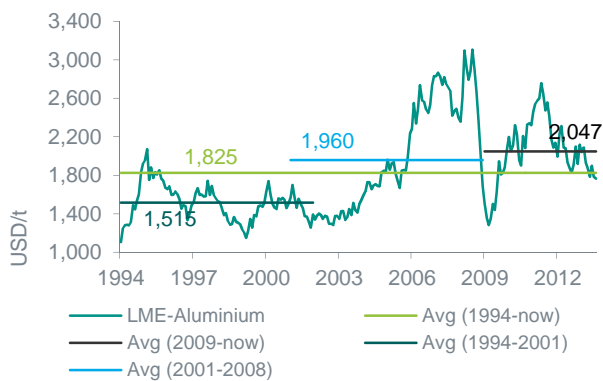
Aluminium - Problems are supply-driven

Market and fundamental developments

The aluminium market has been in surplus since the financial crisis of 2008. The crisis caused a strong drop in demand in North America and Europe, while supply increased further and capacity also continued to rise (especially in China). The market is desperate for strict producer discipline – and severe cuts in excess capacity – which would normalise market conditions and provide some price support. While the Chinese government has announced a plan to restructure its aluminium sector, we feel it is somewhat ambitious. By 2015, the top ten smelters must account for 90% of the country's total production capacity. We remain sceptical about the feasibility of these plans and expect the current oversupply to last for some time. In a Chinese market structure where more than 60% of the smelter capacity is in the hands of non-government entities, restructuring will prove to be difficult to realise. Nevertheless, thanks to solid manufacturing data from China, prices performed well in August, increasing by 5% while LME stocks declined by 1%.

Conditions are expected to remain uncertain and volatile, especially in Europe where buying activity remains weak just after the summer holiday season. In end-using sectors – such as construction, car manufacturing and consumer goods – conditions have not yet recovered and European consumers remain quiet, hoping for lower delivery premiums. Stocks at the LME warehouse in Vlissingen – the world's largest aluminium inventory by volume – have already increased by 42% since the start of 2013. Demand outside Europe is stronger. Given the decent pace of US economic growth – with GDP gaining pace, firm job growth, manufacturing activity expected to stay solid and further strengthening of the housing market – prospects for aluminium demand are sound. In addition, aluminium will be increasingly used in the car manufacturing sector because this lightweight metal reduces the weight of cars while making them more fuel-efficient. The average aluminium content in cars is expected to rise from 10% in 2012 to approximately 20% in 2025.

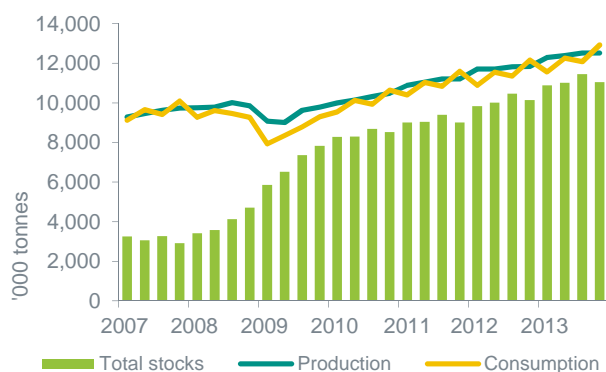
Historic price development



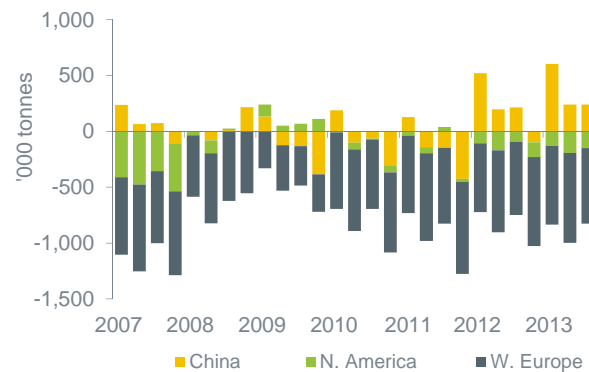
Weekly price movement



Global - Supply, demand and stocks



Regional - S/D-balance



| | Spot rate | Avg month | Avg year | ABN AMRO outlook 3-m | % change against spot rate | ABN AMRO outlook 2013 | % change against avg year |
|-----------------|-----------|-----------|----------|----------------------|----------------------------|-----------------------|---------------------------|
| Aluminium price | \$1,815 | \$1,770 | \$1,886 | \$1,835 | 1% | \$1,900 | 1% |

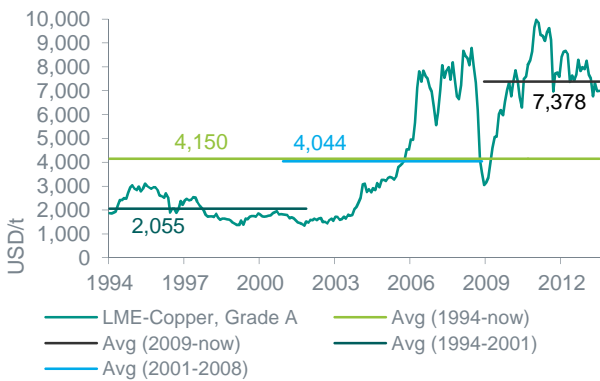
Copper - Economic data improves copper outlook

Market and fundamental developments

Economic indicators from major copper consuming regions provide a solid base for our copper outlook. Economic data from the US point to further recovery. The labour market is gaining strength, conditions in the housing market have improved and industrial production is steadily increasing. The preliminary PMI for the US manufacturing sector rose modestly to 53.9 in August, which is well above the neutral 50 mark. And as US economic growth maintains a decent pace, the economy in Europe is finally picking up. The manufacturing PMI increased sharply in August, once again reaching the level of June 2011. In China, meanwhile, the preliminary PMI for the manufacturing sector increased by 5% [p-o-p], suggesting stronger activity over the coming period. A recovering Chinese economy is also reflected in copper demand. During the first seven months of 2013, volumes of imported refined copper decreased by 22%, while the import of copper concentrates and copper anodes rose 37% and 14%, respectively, in that period. This suggests that China is increasing its copper smelting and refining capacity.

From June, Chinese imports of refined copper increased again after eight consecutive months of strong declines. Copper prices rebounded sharply in August, gaining 5%. The increases were mainly supported by increased manufacturing activity and better economic data in major regions. On 26 June, copper stocks at LME warehouses reached a 2013 record high, then started to decrease. Since that peak, inventories at LME fell by 17%. Meanwhile, inventories at the Shanghai Foreign Exchange (SHFE) had been declining since April and lost 37% in four months' time. The combination of decreasing stock volumes and improving economic indicators suggests that end-using demand is picking up again. Going forward, consumption levels will remain solid, with strong growth in China and a stabilisation trend in Europe and the US. Copper production is expected to increase further until 2014. We foresee a small surplus of 1.0% of consumption over 2013 and 2014. Fundamentally, we consider the copper market to be sound, and in our view this justifies price increases going forward.

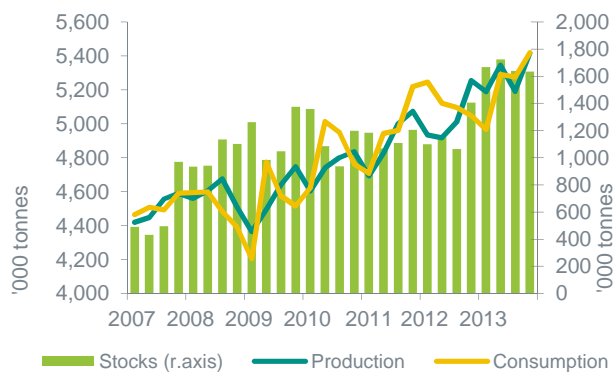
Historic price development



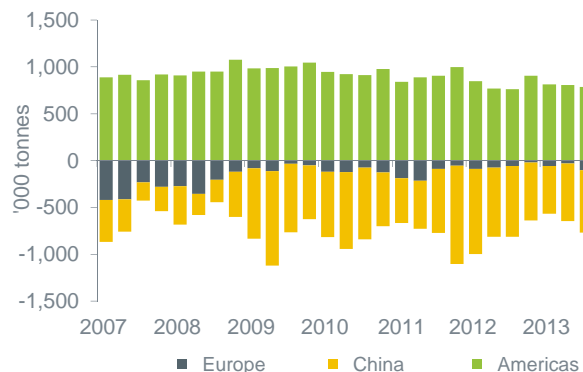
Weekly price movement



Global - Supply, demand and stocks



Regional - S/D-balance



| | Spot rate | Avg month | Avg year | ABN AMRO outlook 3-m | % change against spot rate | ABN AMRO outlook 2013 | % change against avg year |
|--------------|-----------|-----------|----------|----------------------|----------------------------|-----------------------|---------------------------|
| Copper price | \$7,265 | \$6,907 | \$7,416 | \$7,100 | -2% | \$7,400 | 0% |

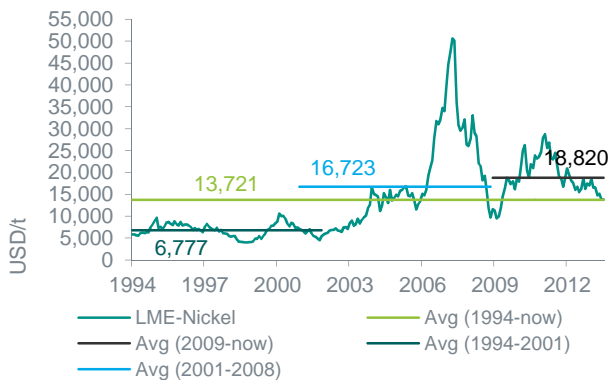
Other base metals - Uncertainty continues

Nickel - Stocks increase sharply

Market and fundamental developments

So far this year, developments in nickel have not been particularly rosy. Since the start of 2013, prices have decreased by 16% and stocks at LME warehouses have steadily increased, rising 48%. In addition, both industrial output of nickel products and nickel pig iron production in China increased strongly in the first half of 2013 and, as a result, the market continued to be oversupplied. In early July, nickel prices reached their 2013 trough of USD 13,232/t, after which prices started to regain some strength. Still, at current price levels, many high-cost producers find themselves in the danger zone and it is almost inevitable that production cuts will be announced. Demand for nickel has been slow, mainly due to relatively slow demand from the stainless steel sector (which accounts for 65% of total nickel demand). In H1 2013, stainless steel demand deteriorated in Europa and Asia (excl. China), while stainless demand in the US and China increased. Nevertheless, our long-term outlook is positive as nickel is increasingly used in sectors such as aerospace, oil & gas and the medical sector.

Nickel - Historic price development

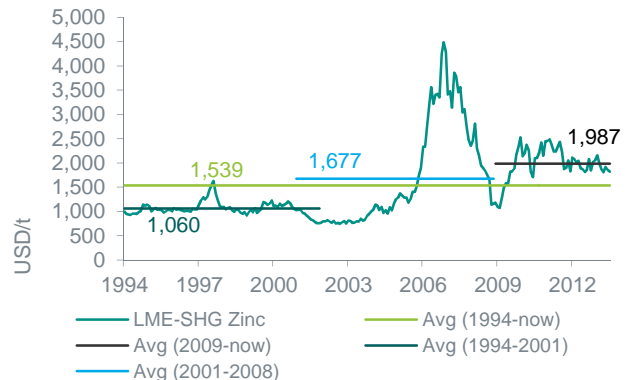


Zinc - Improving apparent demand

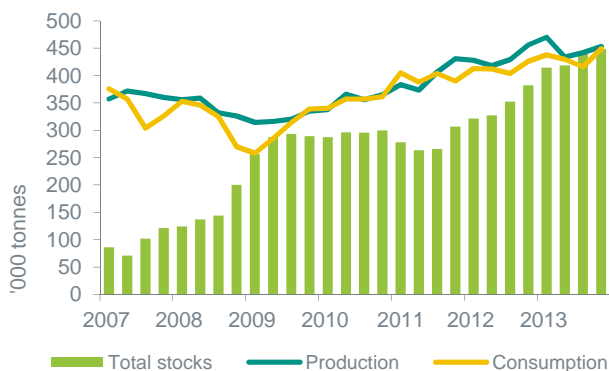
Market and fundamental developments

Prices have recovered after recent losses and are nearing the USD 2,000/t mark, a level we have not seen in six months. While economic conditions in major countries (the US, China and Europe) have improved, one of the main reasons why zinc prices have gained strength is improving economic data in China. These data indicate that economic activity should pick up again, thanks to stronger industrial production and a recovery in the manufacturing PMIs. Demand for zinc is also picking up. According to data from the ILZSG, apparent global refined zinc demand increased by 5.8% yoy in the first half year of 2013. The main driver for this uptick was China, which increased its demand by 8.9% in the same period, while Europe and US witnessed increasing consumption levels of 2.6% and 4.2%, respectively. In addition, zinc stocks at LME warehouses have been steadily decreasing. Since the beginning of 2013, zinc stocks at LME warehouses have already lost 16%. Stocks at SHFE warehouses have also been decreasing and declined by 17% in the same period. In terms of total volume, stocks at LME and SHFE have jointly fallen by 249,734 tonnes.

Zinc - Historic price development



Global - Nickel supply, demand and stocks



Global - Zinc supply, demand and stocks



| | Spot rate | Avg month | Avg year | | Spot rate | Avg month | Avg year |
|--------------|-----------|-----------|----------|------------|-----------|-----------|----------|
| Nickel price | \$14,104 | \$13,750 | \$15,635 | Zinc price | \$1,920 | \$1,838 | \$1,918 |

Steel - US outperforms EU and China

Market and fundamental developments

Weak demand and oversupply continue to dominate market conditions, especially in Europe and China. Although the number of transactions is currently also influenced by seasonal factors, demand volumes by end-using sectors are still below their pre-crisis levels. Overcapacity persists, particularly in China and Europe. China has announced ambitious plans to tackle the issue, including closing small inefficient mills and requiring the top-ten producers to have a market share of 60% by 2015. But so far we have only heard a few rumours about possible capacity cuts and steel production in China continues to grow (steel output increased 7% yoy in the first seven months of 2013). On top of this, the cuts that have been made only represent a small proportion of total capacity in China. We therefore still have our doubts about whether the goals set by policymakers will be met. In Europe, producer discipline seems to be more strict and steel output decreased by 5% in the first seven months of 2013. This is the case in the US as well – where steel output also declined by 5% - but in July production increased again after 10

months of yoy decreases. And while uncertainty and concerns persist in the steel sector in Europe and China, the US steel sector is performing relatively well. An increase in end-user demand, especially by the US manufacturing sector, gave the steel sector an impulse and steel output increased during July. Although gains in US manufacturing output and sales are still fairly slow, the economic data shows that general activity in the US manufacturing sector is picking up. This bodes well for the remainder of the year. Nevertheless, steel demand is still rather soft and concerns will remain about the strength of growth. Activity in US non-residential construction is still slow and the Consensus Construction Forecast Panel (of the American Institute of Architects) has lowered its outlook on construction spending for 2013. New car registrations in the US and China continue to increase, while sales volumes in Europe fell 10% yoy in the first half of 2013. Global steel utilisation rates are still relatively low at 78.9% up to July and are expected to stay at this level for the rest of 2013.

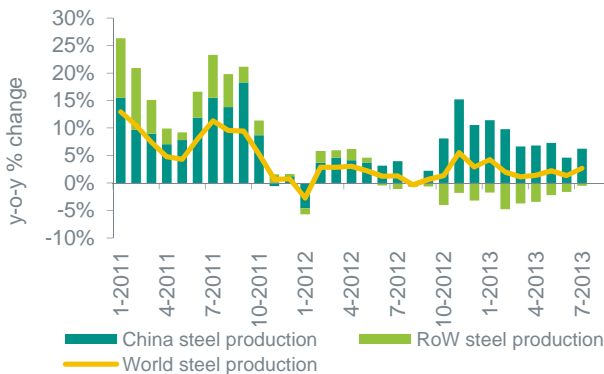
Historic price development



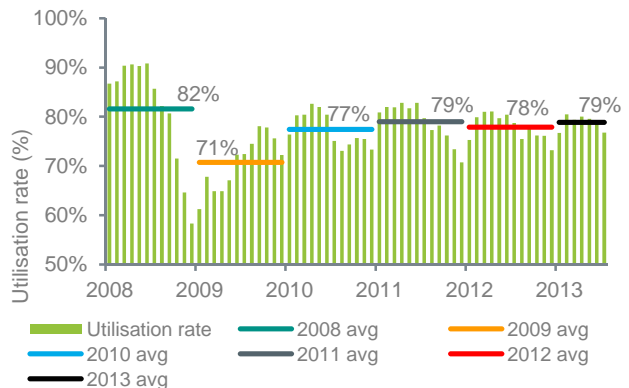
2012-2013 steel price movement



Global steel production (% change)



Global steel utilisation ratio



| | Spot rate | Avg month | Avg year | ABN AMRO outlook 3-m | % change against spot rate | ABN AMRO outlook 2013 | % change against avg year |
|-------------|-----------|-----------|----------|----------------------|----------------------------|-----------------------|---------------------------|
| Steel price | \$579 | \$559 | \$583 | \$561 | -3% | \$570 | -2% |

Steel raw materials - Sluggish conditions

Iron ore - Price recovery short-lived

Market and fundamental developments

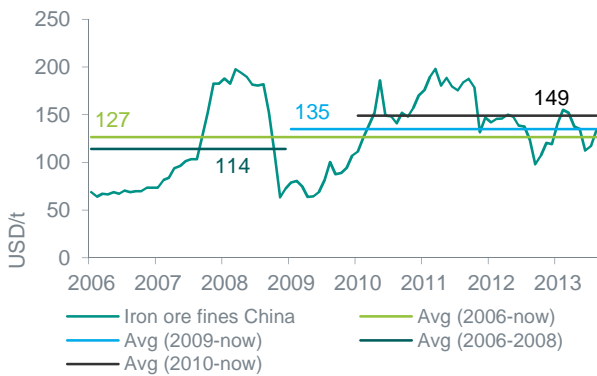
In the beginning of June, the iron ore price reached its 2013 trough of USD 112.5/t. From that point, the price started to increase again and has already gained 24%, reaching USD 139.5/t on 21 August. In July, China significantly increased the volume of its iron ore imports, by 17% mom and 26% yoy. These are rates we have not seen in 17 months. As we pointed out in our Quarterly Commodity Outlook, we believe this price recovery will be short-lived. Market conditions in the steel sector are still relatively weak and steel oversupply is persistent, which does not bode well for the iron ore market. Alongside this, additional supply will enter the international iron ore market from new projects, which are overhanging the market and will put pressure on market conditions and prices going forward. In the long run, however, China is expected to intensify its position in the iron ore market. Domestically-mined iron ore is of low quality, which is continuing to deteriorate. Grades of China's domestically mined iron ore have an approximate Fe content of 25%, significantly below the global average of 62%.

Coking coal - China depends on imports

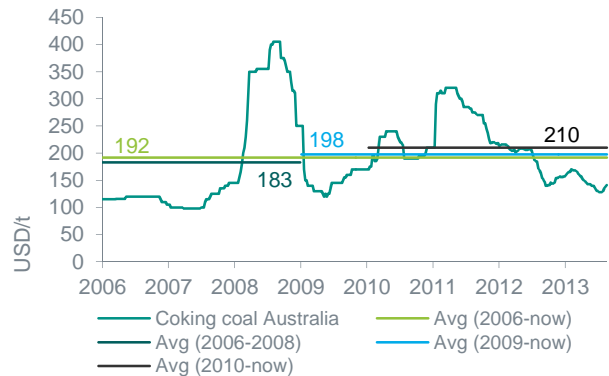
Market and fundamental developments

Hard coking coal prices reached their 2013 high in early February and then started to decrease. Coking coal prices fell 25% up to the end of July, settling at USD 128/t. Over the month that followed, coking coal prices witnessed a recovery and have so far increased over 11%. The main driver for the price rise was China's substantial imports of coking coal, which surged by 25% mom in July and 49.7% yoy. Over the first seven months, China increased its import volumes of coking coal by 30% yoy. In other major coking coal consuming countries – such as Japan and South Korea – existing stockpiles at steel mills seem to be sufficient to meet the level of steel production and seaborne import volumes have stabilised. Steel output in China continues to increase, despite government announcements that steel production by small and inefficient mills will be cut. It will clearly take some time before steel output cuts (aimed at tackling steel overcapacity in China) have an effect on the international coking coal market.

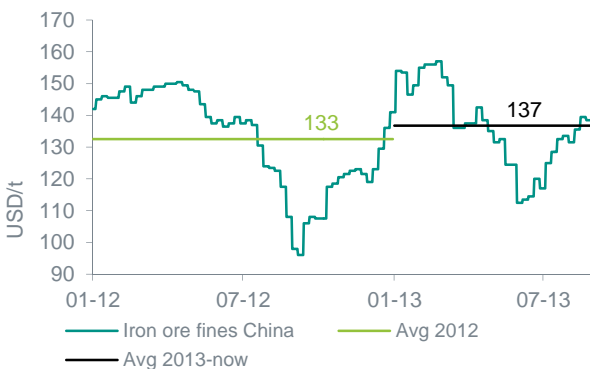
Historic price development



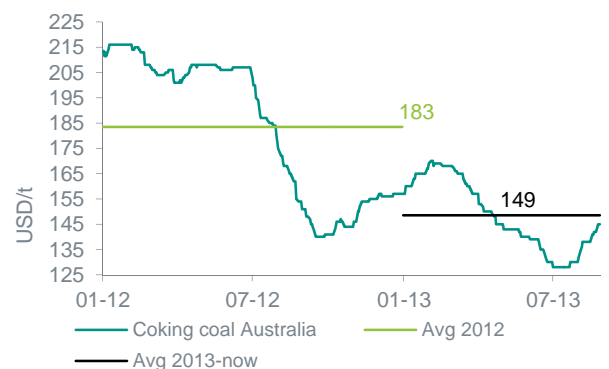
Historic price development



2012-2013 iron ore price development



2012-2013 coking coal price development



| | Spot rate | Avg month | Avg year | | Spot rate | Avg month | Avg year |
|----------------|-----------|-----------|----------|-------------------|-----------|-----------|----------|
| Iron ore price | \$139 | \$128 | \$137 | Coking coal price | \$145 | \$129 | \$149 |

China - key factor for global metal markets

China metal balance - share of China in world metals production and consumption 2012

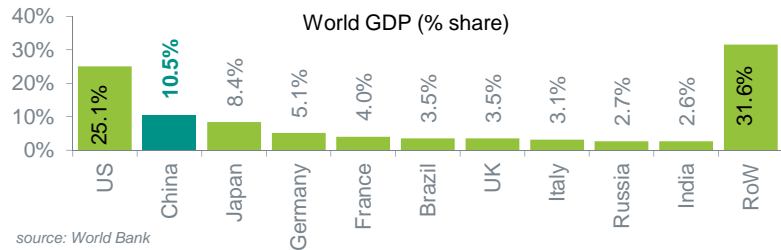
| | Aluminium | Copper | Nickel | Zinc | Crude steel | Iron ore | Coking coal |
|---------------------|-----------|--------|--------|------|-------------|----------|-------------|
| - Production share | 45% | 29% | 30% | 38% | 47% | 15% ** | 51% |
| - Consumption share | 44% | 43% | 47% | 43% | 51% * | 65% *** | 57% |

* = finished steel demand; ** = converted to world high quality average; *** = of total world imports

ABN AMRO economic forecasts:

| | 2013 | 2014 |
|----------------|------|------|
| - GDP | 7.5% | 8.0% |
| - Inflation | 3.0% | 3.9% |
| - Unemployment | 4.3% | 5.3% |

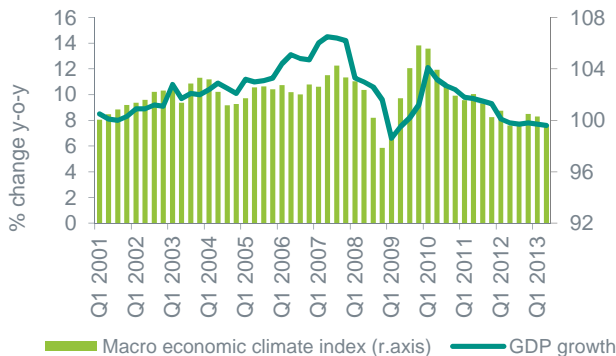
(urban)



Economic Update by Maritza Cabezas - Senior economist (+31203435618/maritza.cabezas@nl.abnamro.com)

The Chinese economy has been remarkably successful in lifting GDP per capita in its catch-up phase, which has made this country a key driver of global economic activity. There are, however, growing fears that China's transformation process is encountering delays and that a hard landing is unavoidable. While we do not believe a hard landing is taking shape, we are also not underestimating the challenges. As the authorities implement their ambitious reform agenda, which includes urbanisation as well as reforms in the financial sector and state-owned enterprises, they have pledged to "fine-tune" policy should the economy need support. This suggests a modest growth path in the coming years that is more sustainable than in the past. For the global economy this means a leaner China with changing demand, as consumption becomes more prominent. Growth opportunities in China will have to be reassessed. We think that a reform package that centres on a new type of urbanisation, different from the path taken over the past three decades, provides the best chance for unleashing a surge in domestic demand and more sustainable growth. Now, however, local governments will not have easy access to credit to promote urbanisation, nor will state-owned enterprises invest in the property sector. Instead, the authorities will have to focus on cost sharing among the central government, local governments and those rural communities planning to migrate to urban areas. In any case, China is envisioning the largest population transfer in history, a development which will not go unnoticed. This creates a new environment of opportunities for companies embarking on this strategy.

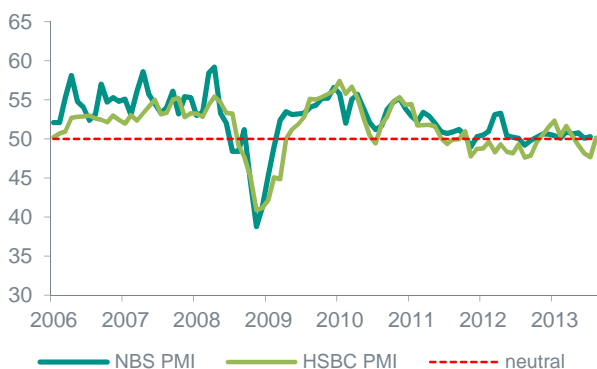
GDP growth & macro economic climate index



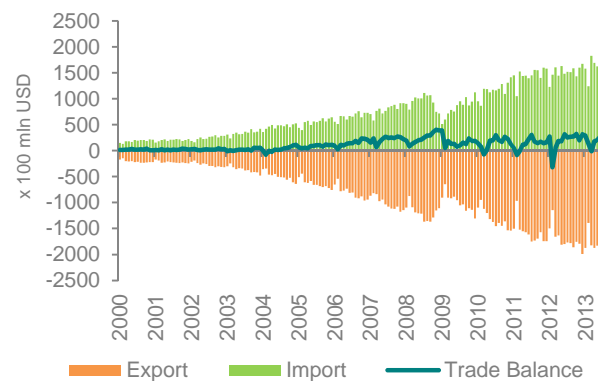
Loans by financial institutions & investments



NBS & HSBC Manufacturing PMI



Chinese trade balance



Casper Burgering (Senior sector economist)
Manufacturing & Industrial Metals



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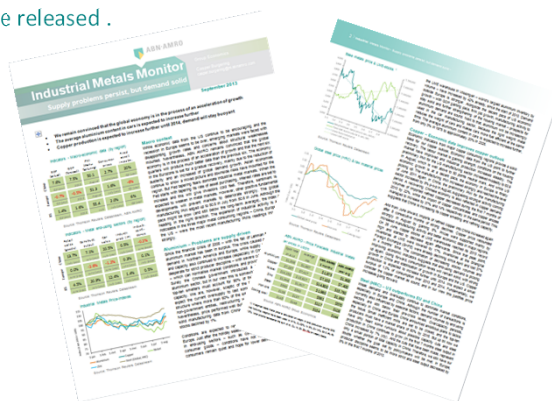
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ABN AMRO Group Economics | Industrial Metals Desk has worked on a new format for the Industrial Metals Monitor. In week 39 (September) the new format will be released .



The new publication will consist of 2-3 pages on industrial metals developments and outlooks on both base and ferrous metals. With this new publication we are able to provide industrial metals insights on a monthly basis going forward (8 times Industrial

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