

## Major overcapacity in the global steel industry

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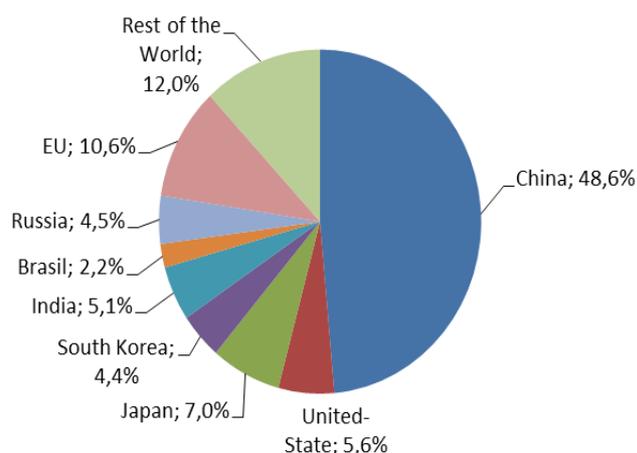
### Executive summary

- Slowdown in global demand to +2% in 2013, versus +5% on average prior to the crisis.
- Almost 50% of global production (1.5 billion tons) is concentrated in China.
- Major overcapacity of more than 300 million tons at the global level is weighing on sales prices (down -10% in the year to mid-2013) and on the margins of manufacturers.
- Restructurings are vital but politically difficult to carry out.
- The sector needs to become more structured in China, where there are still too many small polluting firms.

### Today China is home to nearly 50% of global steel production

Growth in Chinese production accelerated within a few years: at 34% of global production in 2006, it now accounts for almost half. This growth stemmed from burgeoning domestic demand, infrastructure construction and car manufacturing. Between 2006 and 2013, growth in global production amounted to +25%, while production in China grew three times that figure (+75%). Among other emerging countries, production increased by +60% in India, while in Brazil it grew by a mere +10% and in Russia it declined by -2%. In terms of tonnage, industrialized countries saw their volumes decline by -7% in Japan, -13% in the United States and -21% in the European Union. Their shares in global production thus fell sharply: between the three of them, in 2013 they now account for only 23% of global production, versus 34% in 2006.

Chart 1: Distribution of the world production of steel in 2013



Source : World Steel Association

### Slowdown in global demand to only +1.8% y/y in July 2013 and +3% forecast for 2014

In the 12 months to end-July 2013, only two countries posted increases in production and demand: China + 6.5% and India +4.3%. Japan recorded zero growth. All other countries saw volumes decrease: -1% in Russia, -5% in the European Union and -4.5% in the United States. All in all, growth in global production will be lower than +2% in 2013, and is forecast to approach +3% in 2014, which is a much lower growth rate than prior to the crisis (+5% per year on average).

### Very different regional production levels before and after the 2008 crisis

To grasp the situation of the steel industry, pre-crisis production volumes need to be compared with those currently realized by the main producer countries. During this period, China and India posted growth rates of +60% and +40%, respectively, justifying substantial investments in capacity. Annual volumes produced in industrialized countries still have a long way to go to regain their pre-crisis levels: there have been significant falls in tonnage of -12% in Japan, -15% in the United States and -23% in the European Union. Even Russia (-7%) and Brazil (-3%) recorded decreases in tonnage between 2008, before the crisis, and 2013, in yearly data.

### More than 300 million tons of overcapacity, everywhere in the world except North America

With 1.5 million tons produced in the world, overcapacity is estimated at around 330 million tons for an average utilization rate of less than 80%. The equilibrium level is closer to 85%. While North America has succeeded in adjusting its production apparatus (little overcapacity), the same cannot be said for the European Union, where overcapacity is estimated at 40 million tons for current production of 163 million tons, i.e. a production capacity utilization rate of around 75%. Substantial overcapacity is also noteworthy in Russia, Central Asia and South America. But it is mostly in China, where investments have increased in recent years, that overcapacity has rocketed, reaching 200 million tons for an average utilization rate of less than 80%. It has reached the point where the Chinese government has demanded the closure of small, unprofitable and polluting plants and asked firms to search for markets outside China even if this means further destabilizing the global market.

Chart 2 : Growth rate of the world production of steel

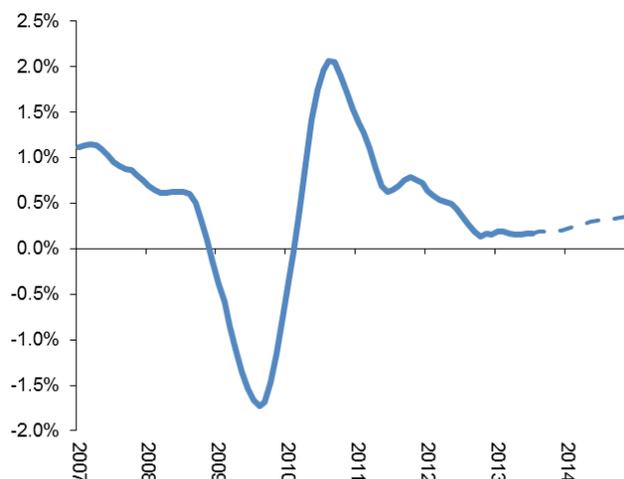


Chart 3: Annual production of steel (in KT)

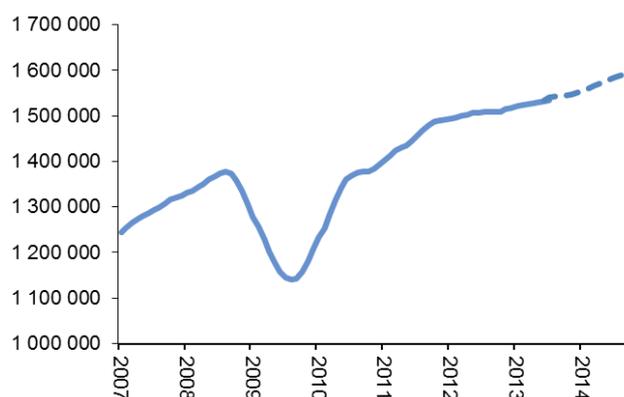
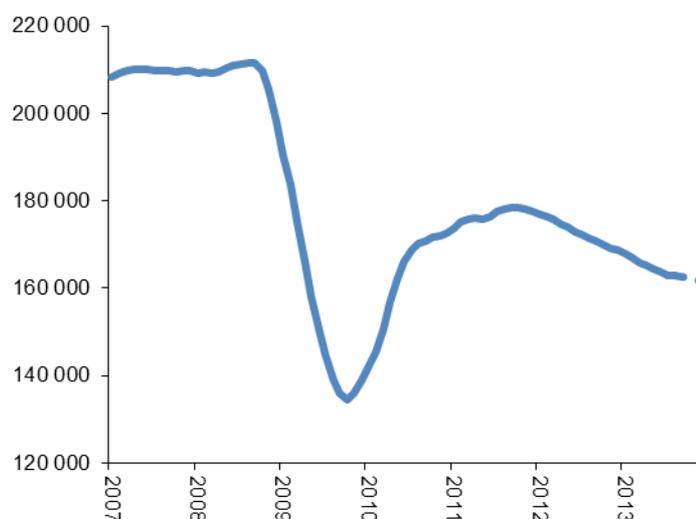


Chart 4: Annual production in European Union (in KT)



Sources: World Steel Association, forecast Euler Hermes

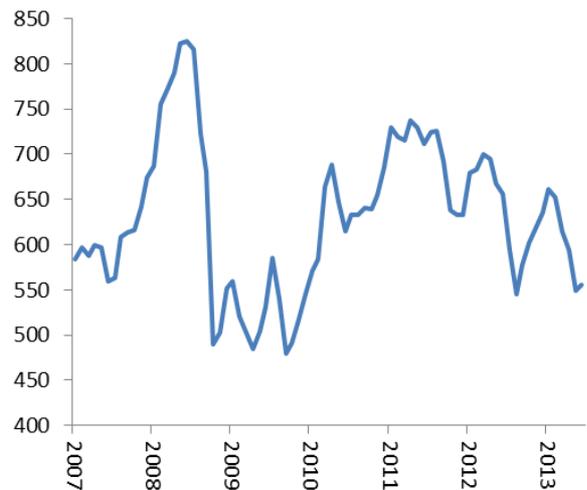
## Overcapacity had driven down prices by -10% at an annual average by July 2013

Amid the general boom in commodity prices prior to the crisis, spot steel prices flirted with an all-time high of USD 850 per ton in 2008 before plummeting to between USD 500 and USD 550 per ton during 2009, with a collapse in demand of nearly -20%. With the gradual recovery in demand, in 2011 prices regained a satisfactory level for manufacturers of around USD 700 per ton. But the slower growth in global demand for steel that set in during 2012 and has been confirmed in 2013 has caused prices to continue to slide. In July 2013, prices stood at less than USD 600 per ton (annual average), with monthly spot prices slipping below USD 550 per ton on occasion. In terms of annual averages (see chart 6), prices have recorded decreases of -10% in the past 12 months and -14% over the past 24 months. They are now lower than their early-2007 level. Moreover, faced with the magnitude of overcapacity, prices are unlikely to rise during the coming 12 to 18 months. The case of North America is striking in this respect. As overcapacity has been eliminated in this region, any attempt by a local manufacturer to raise sales prices is met immediately with an increase in imports.

## Falling prices have led to a collapse in profitability

During 2007 and 2008, steel manufacturers posted profit margins (operating profit divided by revenue) often comfortably in excess of 10%, benefiting from high steel prices and sustained demand (+5% on average per year since the turn of the century). The brisk growth in demand stemmed notably from immense needs in China, which invested massively in new steel factories. Unlike other sectors, like the automobile sector, this growth almost exclusively benefited local manufacturers, nearly 50% of which are state-owned enterprises. But as some regions are yet to emerge from the crisis, such as Europe, where demand in 2013 is still around -25% lower than 2007 consumption, and elsewhere in the world production capacity has not stopped increasing, overcapacity has appeared almost everywhere. This excess supply and the resulting downward adjustment in sales prices during the past two years have driven steel manufacturers' profit margins to low or insufficient levels. For example, the profitability of the leading manufacturers by region (see chart 7) shows that operating profit/revenue has fallen from more than 8% in 2008 to 1.3% in 2012 in China, from nearly 13% to less than 4% in the United States and from 12.6% to less than 3% in Europe. Japan posts the lowest profitability, at 0.8% in 2012 compared with more than 7% in 2008. Under these conditions, the few restructurings announced still seem insufficient.

Chart 5: monthly variation of steel price (china domestic hot rolled steel, \$/T)



Sources: Bloomberg, Euler Hermes

Chart 6: Variation of price hot rolled steel, annual average (\$/T)

	Jul-08	Jul-09	Jul-10	Jul-11	Jul-12	Jul-13
Price	781	553	581	694	666	598
Variation	33%	-29%	5%	19%	-4%	-10%

Sources: Bloomberg, Euler Hermes

Chart 7: Profitability for the main companies: Operating profit rate (profit from operations over revenue)

Operating profit/revenues	2008	2009	2010	2011	2012
China	8,2%	4,5%	4,0%	2,4%	1,3%
US	12,9%	-9,1%	0,9%	4,0%	3,7%
Europe	12,6%	-1,3%	5,0%	6,0%	2,8%
Japan (1)	7,2%	2,0%	4,7%	1,9%	0,8%

### List of companies

China: China steel, Hebei, Sanxi taigaing, Wuhan, Agang

US: US steel, Nucor

Europe: Arcelormittal, Thyssenkrupp, Voestalpine

Japan: Nippon steel and Sumitomo, JFE, Kobe steel, Nippon steel trading

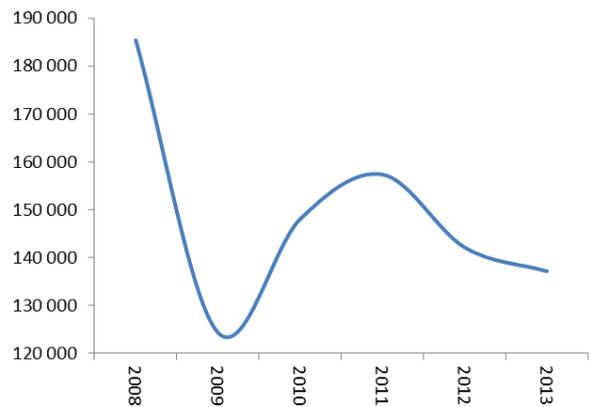
(1) The financial statements are stopped on March of next year

Sources: Companies, Bloomberg, Euler Hermes

## Rationalization of the sector is necessary but difficult to carry out

The few cases of closure or planned closure of steel factories in Europe show that this is not done without interventions and misgivings on the part of local governments. Of note was the heated controversy stemming from the announcement of closures in Florange in France and in Liège (Arcelor) and Charleroi (Dufenco) in Belgium, where the idea of nationalization was raised in both countries. Serbia made the decision to take over a local steel plant, which it bought off US Steel for USD 1. Last, there is the case of Italian group Riva, which was placed under administration but with operations continuing at Europe's largest steel mill, the Ilva plant in Taranto, which should have been closed because it is too polluting but 11,500 direct jobs are at stake. China also hopes to limit overcapacity through a request made to banks to no longer finance investments in capacity, as well as a request made to close small polluting plants, although to little avail for the time being. The issue of overcapacity and restructurings in the sector could drag on for several years.

Chart 8: Consumption of steel in fall of more than 25% in 2013 compared to 2008



Source : Eurofer, in KT

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