



DIVERSIFIED INDUSTRIALS

What's Ahead for the Metals Industry in 2009?

The Metals Industry's Response to the Economic Downturn

KPMG INTERNATIONAL

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Executive summary

Has the market finally hit bottom for the metals industry? Or are we still in a downturn that will continue to weaken demand and prolong financial stress for manufacturers and suppliers? To better understand where the metals industry is heading in 2009, we can start by reviewing emerging issues in areas such as customer demand, cost and financing, regulations, and the availability of raw materials.

In the fourth quarter of 2008, the global metals industry was rocked by unprecedented economic and market upheaval. As we move through the first quarter of 2009, conditions remain just as challenging.

The global economy overall is still paralyzed by the economic downturn. In addition to weakened end-use demand, many customers continue to reduce their inventories due to liquidity concerns. Steelmakers in North America are currently operating at a capability utilization rate of just over 40 percent — down from 90 percent during the same period last year¹.

So the question for 2009 becomes whether we have hit bottom. Is the slowdown in the real economy likely to prevent any meaningful recovery in 2009? Are we still in the midst of a metals commodity super-cycle — albeit with a slowdown — or is the industry resetting itself?

Finding answers to these questions can begin with a review of key issues facing the industry in 2009.



Mark Barrus

Global Head of Metals, KPMG in the U.S.

¹ American Iron and Steel Institute (AIS), *Weekly Steel; Production Report*, January 24, 2009.

Customer demand

Like the calm before a storm, conditions in the first half of 2008 gave little indication of what was approaching. In fact, most steel companies enjoyed steady demand and record earnings throughout much of 2008, despite a tightening of credit markets. Strong economic growth in Asia was matched by increased demand in European and Middle Eastern markets. A weak U.S. dollar also helped stimulate foreign purchasing and increased production.



By the middle of 2008, the industry had seen record levels in prices, demand and volume, especially for steel and scrap. Other metals such as nickel, titanium, copper, and platinum also enjoyed strong profits and broad-based demand.

However, storm clouds began to appear on the horizon during the summer of 2008. Battered by a growing global financial crisis, construction activity began to decline, accompanied by a collapse in demand for durable goods such as automobiles. In the European Union and U.S. markets, demand for automobiles plunged by as much as 30 to 40 percent².

As a result, global steel production, which peaked in May 2008, began a steep decline. In September 2008, production was 4 percent down, and October production was 12 percent down relative to the same months in 2007. This decline has continued into 2009.

Even traditionally robust engines of production such as the BRIC countries (Brazil, Russia, India, and China) have seen significant downturns. China's crude steel output was down 12.4 percent in November 2008, as compared to the same month of 2007. October's production was 17 percent down year-over-year³.

With reduced production came a drop in prices across the industry. Contract prices for iron ore and metallurgical coal are expected to be 20 to 40 percent lower in 2009 than last year. Steel prices have dropped approximately 60 to 70 percent since 2007, and they are not expected to increase by more than a few percentage points in 2009. In the U.S., scrap prices have plummeted from a peak in the summer of 2008 to levels last seen in 2002 — from U.S.\$575 per ton in August of 2008 to a January 2008 price of U.S.\$110 per ton for No. 1 Industrial Heavy Melt⁴.

² *A Rough Road: The Effects of Today's Financial Crisis on the Global Automotive Industry*, KPMG International, November 2008.

³ *Metals Monthly: 2008 Wrap Up*, KeyBanc Capital Markets.

⁴ *World Steel Outlook*, FitchRatings, January 02, 2009.

⁵ *Demand for Platinum Metals in the Automotive Industry: Recent Changes and Future Trends*, KPMG International, November 2008.

⁶ *Production Cuts Staring Steel Giants in The Face*, *Business Standard*, January 12, 2009.



Prices for other metals such as platinum have seen equally sharp declines. Used for catalytic converters and fuel cells in automobiles, platinum was selling in March of 2008 at an all-time high of U.S.\$2,300 per ounce. On October 2, 2008 the price of platinum fell below U.S.\$1,000 an ounce — the lowest price in more than two years⁵.

Industry observers are generally pessimistic about demand recovery for the metals industry in the months ahead. Analysts at Credit Suisse suggest that world steel production could fall 10 percent during 2009. World Steel Dynamics predicts a drop of 13.9 percent for the year⁶.

“Those organizations that look to improve their internal efficiencies and control their fixed cost base should be in a position to price competitively and gain market share. Only the leanest and most proactive organizations will likely deliver satisfactory returns for their shareholders going forward.”

Bill Kimble, Global Head of Industrial Markets, KPMG in the U.S.

On October 2, 2008 the price of platinum fell below

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Cost optimization

Reduced demand and falling prices have put extreme pressures on companies, threatening their profits, margins, liquidity, and very survival.



As a result, companies are finding new ways to optimize their cost structure. This involves a high level of commitment that goes beyond simply reducing excess costs. In most cases, it requires companies to adopt radically new strategies, processes, and even business models. In every case, cost optimization is based on a culture of cost management throughout the organization that provides strong incentives for eliminating waste.

For example, many metals companies have spent 2008 Q3–Q4 destocking in the face of disappearing customer orders. Capacity has been idled where practical, and capital spending has been slashed for 2009. A large number of producers are utilizing downtime for maintenance, including major projects such as relines.

Processors and service centers have stopped booking orders, and they are filling occasional customer demand from inventory or by trading with each other. Long-term contracts are being renegotiated, and producers are using the economic conditions to encourage price concessions from raw materials suppliers and vendors.

Other first-tier suppliers and manufacturers are cutting costs by streamlining warehouses more aggressively. Among European Union (EU) manufacturers, the inventory-to-output ratio is forecast to fall, as shown by a net balance of minus 27.2 percent since July of 2008⁷.

GHG emissions per ton of steel shipped have been reduced by

45%

As companies reduce cost, they need to consider the agility of the fixed and variable cost structure so they can react to volume changes. In an industry characterized by tremendous volatility, any cost alignments need to ensure flexibility for both up- and downsizing.

This requires a constant effort to maintain core competencies and to make cost-reduction decisions that carefully balance both the Cost of Goods Sold (COGS) and Selling, General and Administrative Expense (SG&A). The incremental effort to recover from COGS cost reductions is significantly greater than SG&A.

⁷ European Manufacturing: KPMG LLP Business Outlook Survey, February 2009.



Environmental regulations

The metals industry is affected by a number of environmental regulations, especially in the area of CO₂ emissions. The Kyoto Protocol includes mechanisms such as Emissions Trading and Joint Implementations to help countries limit greenhouse gas (GHG) emissions.

The EU is working to make renewables 20 percent of total energy demand by the year 2012. The EU has also announced the goal of reducing CO₂ emissions by at least 20 percent by 2020.

In response, the metals industry is expanding efforts to meet regulatory goals through recycling, new manufacturing processes, and new technology to reduce waste and emissions.

The steel industry, for example, can point to a number of achievements in addressing environmental concerns. Steel is the most recycled material in the world, and more steel is recycled annually than all other materials, including aluminum, glass, and paper combined. The U.S. steel industry has exceeded Kyoto accords for improvement by more than 240 percent. The industry has also reduced its energy intensity per ton of steel shipped by 29 percent since 1990.

GHG emissions per ton of steel shipped have been reduced by nearly 45 percent since 1975⁸.

The steel industry is also planning a number of environmental initiatives at the global level. Ian Christmas, Director General of the World Steel Association, has detailed four areas in which steel companies can improve their environmental posture:⁹

1. Working with customers to produce more CO₂ efficient applications of steel
2. Promoting best practice transfer around the world
3. Supporting major research and development of breakthrough technology
4. Measuring and benchmarking the CO₂ intensity of steel plants with a common methodology

The metals industry is expected to continue to face significant regulatory challenges, especially in their efforts to achieve a coordinated, global approach to GHG control.

To give just one example, over half the steel in the world today is produced in developing countries, and these countries are naturally reluctant to accept an absolute cap on GHG emissions.

At the same time, developed countries want to retain their competitiveness and not be penalized for the size of their industrial output. Agreements must be developed among nations to help ensure market fairness as well as environmental responsibility — not an easy task and one made even more difficult by the current economy.

Companies need to evaluate their preparedness for the impact of these restrictions — such as the proposed U.S. cap and trade legislation — by evaluating their energy footprints and clearly understanding the regulatory environment in each country. They also need to prepare enterprise-wide contingency plans before these restrictions go into effect.

⁸ American Iron and Steel Institute, www.sustainable-steel.org, accessed February, 2009.

⁹ Speech delivered at the World Business Day of the United Nations Framework Convention on Climate Change (UNFCCC) in Poznan, Poland, December 9, 2008.

Cash and working capital sufficiency

In the middle of any recession, liquidity and cash expenditures become key concerns. Much of the destocking and capacity rationalization has been completed. Now, many metals firms are taking overall looks at their cash flow, given the extended demand decline.

Companies have been able to release cash through improved working capital management and tax efficiency, leveraging options such as supply chain, VAT, and tax-efficient procurement.

Changing operating cash cycles and implementing new policies, procedures, staff assignments and systems have also resulted in improved cash performance for working capital.

In addition, companies are finding new opportunities in treasury, tax, property, and other assets to release trapped cash.

To further improve cash and working capital management, many companies are increasing the forward visibility and control of their cash flows, helping to support a sustainable, long-term release of cash and working capital. In addition, companies are working to develop a more balanced focus on cost and organizational capability.

Analysts at Credit Suisse suggest that world steel production could fall

10%
during 2009.

Industry consolidation

The metals industry has a history of restructuring and consolidation from 2000 to 2007, driven by the need to rationalize capacity and cost structures. These needs are still in place, perhaps even more so with today's economy, but the scarcity of credit has basically halted reorganizations.

Stronger balance sheets and a loosening of credit may lead to more mergers and acquisitions. However, based on the industry's experience during relatively milder recessions in 1991 and 2001, we could see an increase in the overall corporate default rate.

Raw materials and energy

To lower costs, companies are seeking cheaper alternatives in raw materials. Some of these efforts actually began last year. In 2008 when nickel prices were much higher, the steel market demanded more cost-effective stainless materials that still retained good forming properties. Accordingly, the stainless division at ThyssenKrupp developed a new material, 1.4640, as a low-cost alternative to austenitic Cr-Ni steel 1.4301. The innovative material combined chromium, nickel, manganese, copper, and nitrogen in a production-appropriate stainless steel material.

Other strategies for manufacturers include vertical integration with suppliers. Steel companies are acquiring scrap suppliers as well as iron ore and coke mines to insulate them from price volatility and ensure a dependable supply of raw materials. Nucor installed blast furnaces and purchased shares of iron ore mines in the Caribbean¹⁰. Tata Steel has adopted a similar strategy, and the company now sources 100 percent of iron ore and 60 percent of coking coal requirements from captive sources¹¹.

To contain energy costs, companies are introducing ways to increase energy efficiencies. According to the Pohang Iron and Steel Company, its steel manufacturing department, Pohang Works, has developed and adopted the reverse charging technology on blast furnaces with small inner capacity. As a result, the burden distribution of small and medium-sized blast furnaces has been improved, and an increased injection amount has led to energy savings.

For downstream processors and producers, a financial risk mitigation tool may be the use of steel futures now traded on the London Metals Exchange. This tool can help manage risk, such as the potential producer bottlenecks that typically arise in a slight uptick in demand and the resulting rush for mill orders when the recovery does begin.



“Vertical value chain control provides one of the simplest methods of hedging. In the steel industry this means shifting value generation upstream.”

**Stavros Stefanis, Managing Director,
KPMG in the U.S.**

¹⁰ *Steeling Your Profits*, Ariba Supply Watch, 2008.

¹¹ *Tata Steel: Buy, Business Line*, August 24, 2008.

Encouraging signs on the horizon?

Like all recessions, however severe, the current economic storm will pass. The metals market is cyclical in nature. People will eventually need to replace their cars, new buildings will have to be built, and so forth. But no one knows exactly when the market will return.



World governments are taking steps to address the economic crisis. China, the world's largest iron ore user, has announced a 4 trillion yuan (U.S.\$585 billion) stimulus package. The U.S. Congress has passed its own stimulus bill totaling U.S.\$787 billion. Countries in Europe and other parts of the world have announced similar measures to support financial markets and encourage economic recovery.

To what degree these government actions will be successful remains to be seen. However, they represent major fiscal injections into the global banking systems, as well as support for industries vital to metals demand, such as construction and automotive manufacturing.

Several steel companies have suggested a possible upturn in the next few months. Fortescue Metals Group Ltd., Australia's third-biggest producer, has stated that the iron ore market may have bottomed as demand from Chinese steelmakers recovers. Taiwan's China Steel Corp. says that it expects an improvement in demand beginning in the second quarter of 2009¹².

Increased demand can also be expected in niche markets. Military applications will probably drive order growth for specialty metals, due to the need to replace old fighter jets with new Eurofighter and F-35 programs. Military orders will likely also include new programs for improved armored vehicles and naval ships, further increasing orders.

Mark Barrus, Global Head of Metals with KPMG in the U.S. believes that the general consensus across the metals industry is that 2009 will be a challenging year, with limited growth, uncertain demand, and prolonged financial stress.

“Steel is one of the world’s most rapidly transforming industries. It is important to recognize the dynamic nature of the industry and measure its impact on your organization’s cost, cash flow and revenue decisions.”

Mark Barrus, Global Head of Metals, KPMG in the U.S.

China has announced a

U.S.\$585bn

stimulus package

¹² Iron Ore Market May Have Bottomed, Fortescue Predicts, Rebecca Keenan and Kyunghye Park, Bloomberg, January 30, 2009.

Succeeding in turbulent times

KPMG member firms offer a number of services that focus on greater efficiency or revised strategy. We provide advisory and tax services on working capital, cash management, and forensic services as well as Tax Efficient Supply Chain Management (TESCM). Many of these services are scalable allowing companies to reduce cost while controlling the level of disruption.

Additionally, KPMG member firms have a coordinated network of global professionals who closely monitor the metals industry. Their insight, industry knowledge and experience help metals companies succeed in today's turbulent times.

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