

World Steel Dynamics (WSD) is a leading steel information service in Englewood Cliffs, N.J. WSD's steel experience, steel database and availability of steel statistics are the principles for performing steel forecasts, studies and analysis for international clients. WSD seeks to understand how the "pricing power" of steel companies the world over will be impacted by changes in the steel industry's structure. To submit your questions for WSD, e-mail WSD@aist.org.



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The following excerpt is from a speech made by Peter Marcus in Taiwan, November 2008.

Q. We are currently in a period of unprecedented and rapid adverse change in the global steel industry. What impact will recent events have on the industry, and where are we headed?

A. Let's first consider what has happened since July 2008. Here are 20 items, all but a few of which are bad for the profits of global steel companies.

1. The link between all regions of the steel industry globally has proved to be remarkably strong. The same things are happening in all regions of the world steel industry, an adverse consequence of the Information Revolution. Everyone gets the same information at the same time. The "invisible hand" is acting – i.e., price allocates resource – with a speed and power perhaps never seen before. The reaction to a surge in prices is severe. The invisible hand is no longer a slap to the face; it's a fist to the gut.

2. New orders for steel in all regions of the world have probably had an unprecedented decline. We've gone from the "chill" to the "deep freeze." Buyers have been "on strike" since July.

3. Steel mill production cutbacks are huge all over the world. Even the Chinese steel industry is not immune. Global steel production in the fourth quarter of 2008 will be down 22% from the second quarter. Annualized steel production in Q2 08 was 1.453 billion tonnes; in Q4 08 it will be 1.136 billion tonnes. And the improvement in the first quarter of 2009 may be only slight. Chinese steel output in the fourth quarter may fall by about 100 million tonnes annualized from the annual rate of 553 million tonnes in the second quarter. Output in 2007 was 493 million tonnes. (Note: China is driving the bus, and the bus is crashing.)

4. The steel price reductions on the world export market have been huge. The price has fallen to "death spiral" levels, which are less than the marginal cost of many producers. HRB on the world market has dropped from \$1,150 per tonne to \$400–475 per tonne in the case of some Tier I mills (in China, Russia, the Ukraine and elsewhere). Why? Cash is king. The mills can't cut back their production fast enough to match the fall in orders.

5. The range of steel prices being quoted on the world market is huge. As of early November 2008, the figure varied from \$400 to \$650 per tonne, FOB the port of export.

6. The price of hot rolled band in China, ex-works, has fallen to only \$373 per tonne. Many steel mills have production costs that exceed \$600 per tonne. The Chinese steel mills are suffering from their second "death spiral" since 2005 – i.e., the price is below the marginal cost of many steelmakers.

7. HRB prices have held up relatively well to date in many home markets, including the United States and Europe. However, this will change soon, if it hasn't already.

8. Oil prices have fallen sharply – from \$145 to \$61 per barrel.

9. Ocean dry bulk freight rates have plunged – from \$110 to \$12 per tonne from Brazil to China.

10. Steel scrap prices have incurred massive falls. In the United States, #1 heavy melting scrap fell from \$550 to \$99 per tonne. Prime industrial scrap fell from \$960 to \$130 per tonne. Why? It is generated independent of the price. Prime scrap in November 2008 is priced below shredded scrap, which comes from the breaking up of automobiles into small pieces. (Note: U.S. prices are important to the world market because the United States is a major exporter of obsolete, #1 heavy melting and shredded scrap.)

11. Far lower spot iron ore prices. Ore coming from India has dropped from \$140 per tonne to \$65 per tonne, FOB the Indian port. In China, the ore price has dropped from \$237 per tonne in March to \$110 per tonne. (Note: 1.6 tonnes of iron ore are needed per tonne of crude steel shipped.) In China, many mines are closed, as indicated in WSD's Zhe Zhang Zone reports.

12. Yet to occur, there are signs of massive declines in coking coal prices. The price is holding at about \$300 per tonne, although we've heard of one transaction at \$200 per tonne. The price a few years ago was only about \$80 per tonne. (Note: 0.6 tonnes of coke are needed per tonne of crude steel shipped.)

13. Steel company common stocks have plummeted. Examples include: ArcelorMittal from \$105 to \$12; Tata of India from \$19 to \$4; Novolipetsk of Russia from \$5.65 to \$0.63; and China Steel of Taiwan from \$1.59 to \$0.63.

14. The U.S. dollar has had an amazing rally. The dollar is king because it is viewed as a safe haven.

15. WSD's World Cost Curve for hot rolled band is destabilized. It is shifting and undulating like a bouncing ball. This is because of huge changes in costs for steel mills that: (a) purchase all their iron ore; (b) purchase mostly steel scrap as their raw materials; and (c) purchase or convert purchased slab to hot rolled band.

16. The Russian steel industry is under great stress due to the financial crisis in that country.

17. Steel trading activity in steel products, and probably many manufactured products, has fallen. Letters of credit are harder to come by.

18. The financial systems of most countries are stressed. Stock market values are down 50% or more in most Developing World countries.

19. Steel companies and their customers are liquidating inventories to obtain cash. Again, cash is king. Manufacturers are paring back their "work in progress" inventories as they reduce operations; this development, in effect, is an inventory liquidation.

20. The Chinese economy is showing strong signs of stagnating, creating the following three problems:

- Manufactured goods exports are 34% of GDP. There is less demand for these goods and, to make matters even worse, it is harder to get letters of credit.
- Fixed asset investment (FAI) in the real estate segment is slowing due to lower housing values in the large cities and/or fears of declines in housing values.
- There's a good chance that steel consumers in China will catch a "chill" just like buyers elsewhere. Of course, the Chinese central government is now rushing to pump up the economy. However, there's a lag of at least six to nine months before the impact may show.

Q. What is the good news for the steel industry?

A. The following 19 items represent good news:

1. Many steel mills have much improved balance sheets, are better able to weather the storm, and are more resilient.

2. Steel industry concentration will permit steel prices in many home markets to sell at a sizable premium to the world export price.

3. The Chinese flat rolled steel industry will restructure and also reduce the pace of equipment capacity expansion. The overcapacity problem will be encapsulated in the country. Exports won't surge for a variety of reasons, especially because the government believes:

- The steel industry has been "crowding out" the growth of other industries.
- It's a major polluter.
- It uses up sizable water and port resources.
- It's vulnerable to countervailing duty suits.

The government wants to promote production of higher-value-added manufactured goods, not rebar, wire rod or hot rolled band.

4. Steel will lose fewer markets due to the high price. In fact, it will gain in construction.

5. Steel's technological revolution will remain a critical force of change in the industry. The technological revolution is the steel industry's "youth pill."

6. We are in the Age of Management, and the right management makes a difference – a very big one. The best companies have "kings" at their helm.

7. Stronger and better-managed steel companies will come out ahead. WSD's world-class steelmakers are among those companies that are now even better positioned to be winners in the future.

8. There will be more mergers and acquisitions.

9. There will still be some advantage for those steel mills with their own iron ore and coking mines.

10. It will still be an advantage to own coke plants. The coke export price from China will remain high.

11. The global economy will overcome the two blockages that are threatening to stop it from growing:

- Inflation. The "invisible hand" is working well. There are no signs of sizable global inflation.

- The out-of-control, high-risk and intertwined global financial system. It will provide a good foundation for future growth.

12. Steel demand will grow at a good pace after 2009, although not enough to give the steel industry a good supply/demand balance in 2009 or 2010 because FAI will lag. Global FAI, which depends on profits, credit and confidence, is currently falling significantly. It can't rebound to a new high, probably, until 2011 – if then. FAI is the key to the steel industry; it drives steel demand, not consumption. (Note: When people forecast per-capita steel consumption, this really is an illusion. It's FAI that drives up steel demand, and then one divides by the number of people to get the per-capita figure.)

13. The years 2000–2025 will still prove to be the third period since 1900 of high steel demand growth. WSD forecasts that steel demand will grow 4.5% during this period. The other growth periods were:

- 1900–1929 (demand expanded 6.8% per annum compounded).
- 1946–1979 (demand expanded 6.5% per annum compounded).

14. WSD's Global Income Shift Paradigm (GISP) analysis and forecast become even more relevant. The GISP analysis demonstrated the importance of the Developing World economy, which (a) now amounts to about 50% of global GDP on a PPP (purchasing power parity) basis; (b) will grow faster than the Advanced Economies in the future; and (c) has a much higher propensity to convert rising revenues to FAI = critical for steel (80% of steel demand). The Developing World economy has a far higher ratio of FAI to GDP than the Advanced Economies. It is FAI that drives the global economy, not consumption. FAI is disinflationary because it adds to capacity and improves efficiency.

15. Global economy will start to look better in mid-2009; however, steel demand will not stage a sharp recovery (although apparent demand may spike temporarily).

16. Steel's Age of Metallics will remain a critical factor impacting the industry for two reasons:

- The reservoir of steel scrap 10–40 years old will continue to grow slowly.
- Not enough blast furnace capacity is being built.

The reservoir is growing slowly because of the slow growth of steel demand 10–40 years ago and a rising recovery rate from the reservoir the past 20 years.

17. Chinese steel demand will keep growing, but at a slower rate. ROW (Rest-of-World) steel demand may expand perhaps faster than China's, as the impact of the Information Revolution continues to spread.

18. Weaker steel companies will fail and/or be absorbed.

19. Good steel plants will not become obsolete; they will become even more valuable. ♦

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