SE Asian steel

- Mismatch in demand-supply to continue

- Steelworld Research Team

Introduction

The current financial turmoil has hit hard to every industry, and steel industry is no exception. As recession fans out across the globe, steel demand, production and prices are plummeting, which ultimately are slowing the global infrastructure activity. And this slow down in the industry can be seen in the forms of production cuts and layoffs. The decline in steel demand is also expected to lead to changes in trade policy in many countries, in order to encourage export growth in response to weakness in domestic markets and to support domestic producers.

Current Scenario

Steel is one of the crucial manufactured goods needed to create an industrialized society and to enable it to operate and grow. In 2007, global steel production reached 1.4 billion tons (a 14 percent increase from 2000), 480 million tons of which were exported for a total of $375 billion. Driven by the economic recession in advanced economies, global steel demand has slowed down by 3-7 percent in 2009. However, on the assumption that banks are now rescued and that normal businesses will soon resume, OECD has predicted that the global economy would start to recover in late 2009. China's steel demand is expected to continue to increase in view of its expanding industrial production and urbanization trend. India, with its low steel consumption of 43 kg per capita in 2007, has tremendous potential for growth. Investment in infrastructure in other developing countries will continue. Strong population growth which results in the need for housing and rising incomes will add further stimulus to construction activity. This in turn will support steel demand growth in the future. As a result, steel demand will recover and is expected to expand by 6-7 percent in 2010 and will surpass the level of demand in 2009 by 2011.

South East Asia steel consumption has been growing continuously after the 1997 crisis. However, its steel producers are lagging behind in terms of capacities and productivity. ASEAN is the second largest net import region with 15.3 million tons of steel net imported in 2004 (USA is no.1 with 25.7 millions tons). The region's net import of steel products has increased substantially, mostly by increasing imports of Thailand and Vietnam. In the period of 1999-2005, Thailand and Vietnam had been growing at an annual rate of 32 percent and 21 percent

respectively. However, there are only two countries in ASEAN have iron making facilities, Indonesia and Malaysia. Krakatau Steel of Indonesia has 2.3 mtpy capacity and Malaysia has Perwaja with 1.2 mtpy and Amsteel with 0.75 mtpy. All of the iron making facilities are using gas-based direct reduction technology. The iron making facilities supplied only 18 percent of iron unit for crude steel production in the region. The production of semi-finished steel has been increasing annually at a steady 10 percent rate (CAGR 99-05) but imports have been increasing as well. More than 11 million tons of semi-finished products are imported last year as ASEAN producers are not capable to supply billets and slabs for the region's demand. Only Indonesia, Thailand and Malaysia have slab production facilities with a total of 7.3 mtpy. Semi-finished steel production in the region is 100 percent from EAF route. As local raw materials (scrap, sponge iron, HBI) are not sufficient, the producers import around 7-8 million tons of scrap per year. Moreover, ASEAN countries imported 16.21 million tons of flat products and 3.44 million tons of long products in 2005. The region's steel demand has been growing moderately. It is forecasted to reach 56 million tons in 2010 and 72 million tons in 2020 from 41 million last year. Construction sector is the largest steel consuming segment in ASEAN countries. Its market share is 81 percent in Philippines, 73 percent in Malaysia, 66 percent in Indonesia, and 60 percent in Thailand. Automotive segment is the second largest in Thailand (12 percent), Indonesia (11 percent) and Malaysia (8 percent). Other emerging markets are appliance, packaging, and shipbuilding industries.

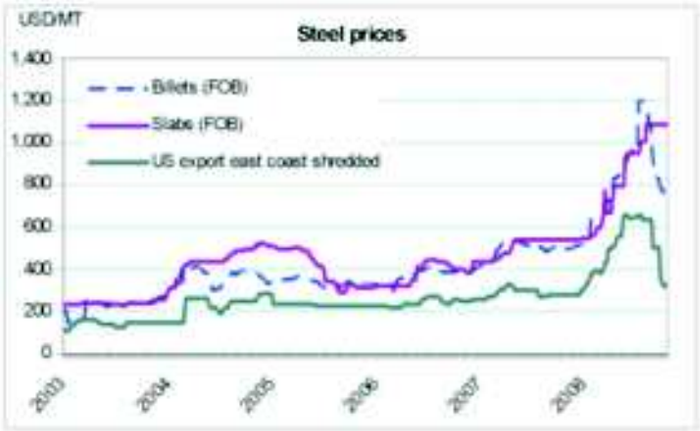
Needless to say, the South East Asia region has a limited capacity in steel production. Ironmaking, steelmaking, hot and cold rolling are all inadequate and in an unbalanced state. The region has long been relying on imported steel. Scrap is scarce in the region so it must be imported. Imports of scrap should mean that the region lacks of iron making capacities. Natural gas is abundant in Indonesia and Malaysia but they have only one DRI plant each. Plate mills and hot strip mills in Indonesia, Malaysia, and Thailand have been importing large volume of slab from all over the world to fulfil their needs. Cheap imported billet has been a preferred option for many bar and rod mills in the region. Some cold rolling mills are also sourcing the hot rolled coils from out of the region suppliers

The problem is not only in term of quantity, but also quality: downstream industries in the region depend on imported high quality steel. Automotive industry (car, motorbike) had been enjoying a booming time in the region but they rely greatly on steel imports, mainly from Japan. Only a fraction of steel needed has been sourced domestically, mainly because of quality reasons. The list of importing industries is quite long: electrical appliance industry (fridge, aircon, etc), home appliance (enamel coated), tinplate, bolt and nuts (cold heading wire rod), and more.

Currently only Indonesia and Malaysia operate HyL III plants to partially feeding their steelmaking facilities. These two countries are among the world's largest natural gas producers, therefore more gas-based iron making plants may be viable to operate. Other technologies available may be worth to be considered to utilising local coal and iron resources. New iron making facilities will provide incentives for ASEAN steelmakers by having better supply availability and price stability. ASEAN hot

rolling mills need millions of tons of steel slab and billet more to balance the capacity. The region desperately needs high quality sheets. Downstream industries would welcome new rolling mills who can supply high quality sheet they require. The ASEAN steelmakers (existing and new investors) will have a price advantage over imported steel, hence cheap steel (e.g. from Eastern Europe) may not cheap anymore as they have to compete with tariff-free from fellow ASEAN steelmakers. In short, there are rooms for steel investment worth to explore in South East Asia. High economic growth in a beginning stage of industrialisation promises an accelerated growth of steel demand.

Figure 1 : Movement of scrap prices vs. billets and slabs

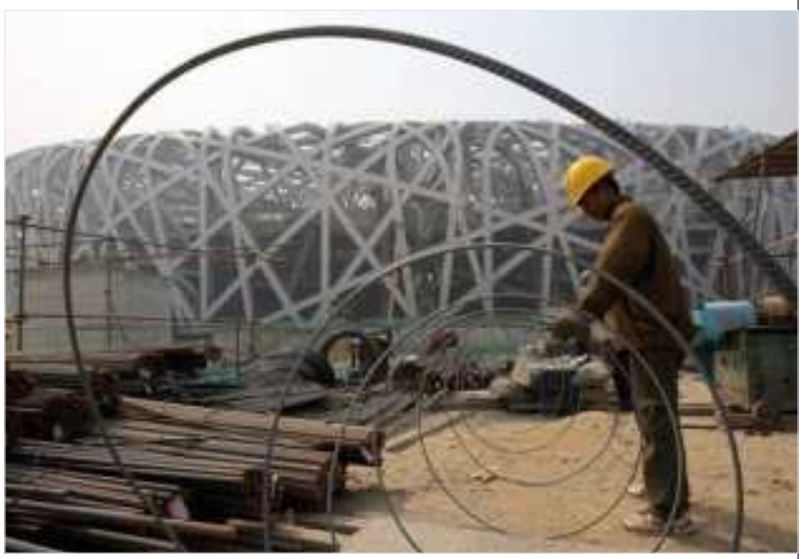


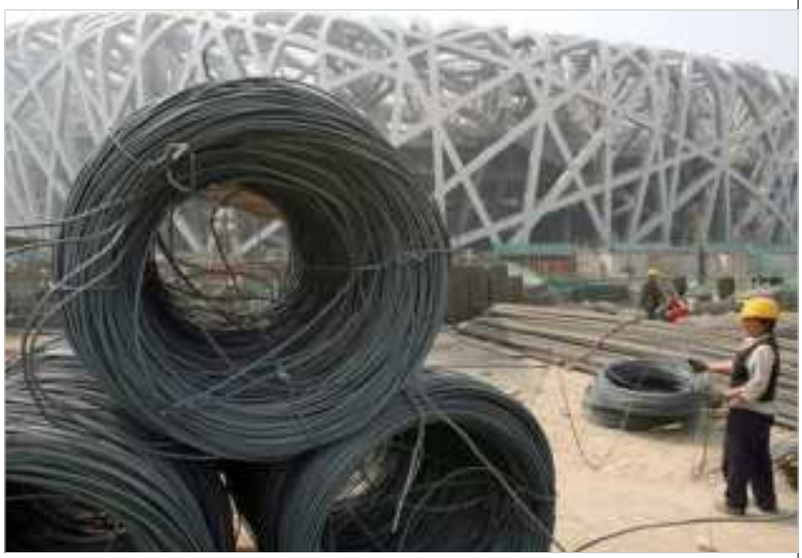
Source: IISI

Review on Prices

Steel is an alloy consisting mostly of iron and an alloying material, such as manganese, giving it enhanced qualities such as hardness and ductility. The essential ingredient for steel is iron ore, and more than 95 percent of iron ore that is mined goes toward making steel. But iron ore is really a broad term for numerous types of ores that contain iron in varying degrees, which must then be processed in a blast furnace and turned into more consumable forms like pig iron or direct reduced iron. For the iron and steel industries, this creates problems with cost management. The wide variety in iron ores leads to inconsistencies when attempting to put a price on "iron" at any given time, as the price must be set according to how much iron is contained in the chemical composition of any particular ore type.

The iron industry's solution to this pricing problem has been for traders to sign contracts on an annual basis establishing the price of iron. Every year from December to as late as June, representatives of major iron mining firms and their customers, the steelmakers, hold protracted and often heated negotiations to hammer out contracts for the year. Yearly contracting creates a lag in pricing iron as compared to other commodities, whose prices are easier to arrive at and therefore fluctuate more freely and frequently. (Iron prices are only free to fluctuate on the spot market, where consumers cannot count on consistent supplies and prices are sharply higher than contract prices.) But the annual contract serves a purpose: It rules out the vagaries introduced by the variety of ores and the inconsistencies of extraction to provide producers and





consumers with a steady, predictable price to figure into their calculations. The relatively inflexible iron-pricing scheme is meant to stabilize markets that would otherwise vary widely as a result of quality fluctuations in the ore.

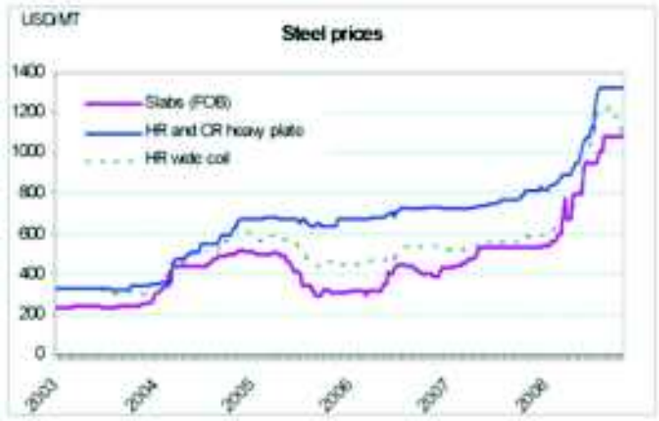
In 2008, iron prices reached abnormally high levels established in spring and summer, when commodity inflation was at its peak. At that point, iron ore spot prices had surged to $200 per metric ton (compared to the current spot price of $70 per metric ton), so iron mining firms had the upper hand in bargaining for high prices. Overall, they managed to settle their 2008 price at about $90 per metric ton — an 85 percent increase from 2007. Of course, not all iron producers got such a good deal. Brazilian mining behemoth Vale secured a 71 percent price increase with its Asian customers in 2008, but later found that Australian competitors had gotten an even higher price. While iron prices remain stuck at these high levels, steel prices constantly change according to supply and demand and depending on the type of steel product. Steel prices have fluctuated especially wildly in 2008, following the major macroeconomic trends of rapid inflation during the first half of the year and then financial crisis and recession. The industry composites of steel prices, based on a basket of steel goods, shows that in July steel prices leaped 74 percent year on year — up to $1160 per metric ton. Now, amid global recession, steel prices are crashing back down again, dropping about 20 percent to $920 per metric ton since July and falling fast. More importantly, steel prices show every sign of continuing their descent as the global recession plays out.

Slowdown of steel demand in the global market in 2008 has led to a dramatic drop in steel prices. After peaking in July/ August 2008, global demand for steel nosedived during September 2008 and there was no sign of any improvement to the end of the year. Price levels continued to be under pressure at least for the short term. World Steel Association reported a sharp drop of 50 percent in the export price of US shredded scrap within two months, from USD 630 per ton in August 2008 to USD 312 per ton in October 2008. Price of reinforcing bar dropped by 10

Figure 2 : Changes in prices of billets and long products

Source: IISI

Figure 3 : Changes in prices of slabs and flat products



Source: IISI

percent within a month to USD 975 per ton (FOB) in October 2008. Slab price, however, remained relatively unchanged since July 2008, registering USD 1,085 per ton (FOB) in October 2008. Meanwhile, price of hot rolled wide coil was USD 1,065 per ton (FOB) in October 2008.

As a consequence of the sharp drop in steel prices, many steel producers are cutting back output temporarily. The world's largest steel maker, Arcelor Mittal announced in September 2008 that it planned to cut production by as much as 15 percent to support prices. Early October 2008, Ukrainian steel maker, Azovstal reduced liquid steel output by 19.3 percent. Europe's second largest steel maker, Corus, owned by India's Tata Steel, announced that it was taking steps to adjust its production in light of the current situation. Severstal, Russia's largest steel maker slashed its production in October by 25-30 percent at its plants in Russia, Italy and US. Magnitogorsk, Russia's third-largest steel maker also cut its October schedule for rolled steel production by at least 15 percent to 850,000 tons. Zaporozhstal, Ukraine's leading steel maker reduced its liquid steel output by 5 percent to 3.2 million tons. In North America, many steel producers are cutting steel output as well.

In China, around 70 Chinese steelmakers met to discuss how they should deal with the weak market. Cutting production is one of the solutions. Additionally, they also decided to postpone the commissioning of new projects and to strengthen cooperation with upstream and downstream users. In the meantime, export of steel from China has begun to surge registering 6.67 million tons in September, an increase of 50 percent over the previous month. In contrast, its export from January 2008 to September 2008 registered 48.5 million tons, down by 2 percent y-o-y. The slowdown in demand in the domestic market may compel many steelmakers in China to look more towards the export market to absorb their excess output, thus putting further pressure on the steel producers in the rest of the world.

Conclusion

The countries whose economies will suffer most are those that import high volumes of iron while exporting lots of crude steel or steel products, such as China, Japan and