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REAL ECONOMY INSIGHT: STEEL

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Picture by Duane Daws

Real Economy Insight: **Steel**

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The steel industry has a turnover of about $1-trillion a year and is said to be 7.5 times larger than the global copper industry, ten times larger than the global aluminium industry and about three times the value of the global cement industry.

China remains the biggest producer and consumer of steel. However, its moderating economic growth rate is expected to have a significant impact on the global steel sector.

World steel market – production

Following a strong 3.5% expansion in 2013, global crude steel production, as reported by the World Steel Association (worldsteel), increased by only 1.2% to 1.66-billion tonnes in 2014.

Total production for Asia increased by 1.4%, reaching 1.13-billion tonnes in 2014, compared with 1.12-billion tonnes in 2013. China remained the top steel-producing country in the region and the world. However, its crude steel production expanded by only 0.9% to 822.7-million tonnes in 2014 – following growth of 7.5% in 2013 – taking the country's share of global production down to 49.5%, compared with 49.7% the year before.

Steel production in Europe remained static in 2014, decreasing by 0.1% to 312.9-million tonnes, compared with 313.2-million tonnes in 2013, with Germany, the European Union's (EU's) biggest steel producer, increasing output by 0.7% to 42.9-million tonnes in 2014, compared with 42.6-million tonnes the year before.

In North America, steel production expanded by 2% to 121.2-million tonnes in 2014, with the US, the region's largest producer, having increased its production to 88.3-million tonnes – 1.7% higher than the 87-million tonnes produced in 2013. In South America, output decreased by 1.4% to 45.2-million tonnes, with production from Brazil, the region's largest producer, having dropped by 0.7% to 33.9-million tonnes.

Output in the Middle East showed the biggest increase in production, with production increasing by 7.7% to 28.5-million tonnes in 2014, compared with the 26.5-million tonnes produced the year before.

The region's largest producer, Iran, recorded a 5.9% increase in steel production, from 15.4-million tonnes to 16.3-million tonnes.

Steel production in Africa, the smallest steel-producing region, decreased by 0.7% in 2014, from 16.1-million tonnes to 15.9-million tonnes. South Africa, the region's largest steel producer, recorded a 0.6% decrease in output from 7.253-million tonnes to 7.254-million tonnes the previous year.

Picture by Duane Daws

Largest steel-producing countries (in million tonnes)

Rank		2014	2013	%2014/13
1	China*	822.7	815.4	0.9
2	Japan	110.7	110.6	0.1
3	US	88.3	86.9	1.7
4	India	83.2	81.3	2.3
5	South Korea	71.0	66.1	7.5
6	Russia	70.7	68.9	2.6
7	Germany	42.9	42.6	0.7
8	Turkey	34.0	34.7	–1.8
9	Brazil	33.9	34.2	–0.7
10	Ukraine	27.2	32.8	–17.1
11	Italy	23.7	24.1	–1.4
12	Taiwan, China (a)	23.3	22.3	4.3
13	Mexico (a)	19.0	18.2	4.2
14	Iran	16.3	15.4	5.9
15	France	16.1	15.7	2.9
16	Spain	14.2	14.3	–0.6
17	Canada (a)	12.6	12.3	2.0
18	UK	12.1	11.9	1.8
19	Poland (a)	8.6	8.0	8.4
20	Austria	7.9	8.0	–1.2
21	Belgium (a)	7.3	7.1	3.6
22	South Africa (e)	7.2	7.3	–0.6
23	Netherlands (a)	7.0	6.7	3.7
24	Egypt	6.5	6.8	–4.0
25	Saudi Arabia	6.3	5.5	15.0
26	Vietnam (e)	5.7	5.5	4.1
27	Argentina	5.5	5.2	5.8
28	Czech Republic	5.4	5.2	3.7
29	Malaysia (e)	5.0	4.7	6.5
30	Slovakia	4.7	4.5	4.3
31	Australia	4.6	4.7	–1.7
32	Sweden	4.5	4.4	3.3
33	Finland	3.8	3.5	8.3
34	Kazakhstan	3.7	3.3	12.3
35	Thailand (e)	3.5	3.6	–2.2
36	Romania (a)	3.2	3.0	6.4
37	Qatar (a)	3.0	2.2	36.3
38	Indonesia (e)	2.8	2.6	5.9
39	Byelorussia	2.5	2.2	12.0
40	UAE	2.4	2.9	–17.0
	Others	28.5	27.9	2.2
	World**	1 661.5	1 642.0	1.2

a – estimate based on 11 months

e – yearly figure estimated using partial data or non-worldsteel resources

*preliminary figures for 2013 and 2014 issued by China Iron and Steel Association in January 2015

**the world production figure in this table includes estimates of other countries that only report annually

Source: worldsteel

World steel market – demand

World demand for steel showed an increase of 0.6% in 2014.

Top ten steel-using countries – 2014 to 2016

Countries	2014	2015 (f)	2016 (f)	2014	2015 (f)	2016 (f)
China	710.8	707.2	703.7	–3.3	–0.5	–0.5
United States	106.9	106.5	107.2	11.7	–0.4	0.7
India	75.3	80.0	85.8	2.2	6.2	7.3
Japan	67.5	65.9	66.6	3.5	–2.4	1.1
South Korea	55.4	56.9	58.0	7.0	2.7	2.0
Russia	43.1	40.2	39.6	–1.4	–6.7	–1.6
Germany	39.2	39.8	40.7	3.0	1.5	2.3
Turkey	30.7	31.7	32.0	–1.8	3.0	1.1
Brazil	24.6	22.7	23.4	–6.8	–7.8	3.1
Mexico	22.5	23.1	24.0	11.7	2.6	3.9

Source: worldsteel
f – forecast

According to figures released by worldsteel in April 2015, steel demand in China reflected negative growth of –3.3% in 2014, the first time since 1995, owing to government's rebalancing efforts, which had a significant impact on the real estate market. This situation is expected to continue in the short term, with demand growth from China expected to record negative growth over the next few years.

In the medium term, no strong rebound was expected. Some uncertainty remained regarding the impact of government measures to stabilise the decelerating economy.

Outside of China, developed countries showed growth in steel demand of 6.2% in 2014, on the back of strong US fundamentals and a stronger recovery in the European Union. Steel demand growth in these economies is likely to equalise this year.

Meanwhile, steel consumption in developing countries, excluding China, posted low growth of 2.3% in 2014, mainly as a result of the continued deterioration in the Brazilian and Russian steel markets.

The South African market

South Africa's steel sector is a significant contributor to the country's economy and a significant foreign exchange earner through its exports to other African countries.

The country produces nearly half of all steel produced in Africa, with Egypt the only other meaningful steel producer currently on the continent. According to worldsteel production data for 2014, South Africa was the biggest steel producer in Africa the twenty-second largest steel producer in the world, having produced 7.253-million tonnes of steel.

Nonetheless, the domestic market remained extremely challenging in 2014. Apparent steel consumption decreased by 9.31% and real steel consumption by 3.1%, according to South Africa's biggest steel producer ArcelorMittal South Africa (AMSA).

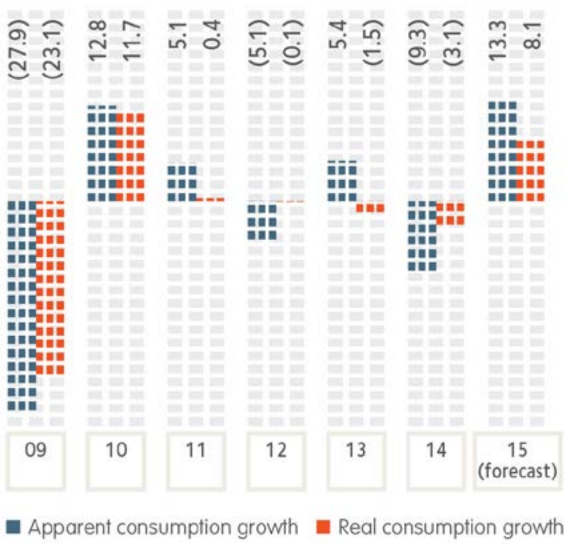
Infrastructural spend was negligible and overall economic activity was static ahead of the national elections, held in May 2014, with gross domestic product (GDP) growth for the year amounting to just 1.4%.

The steel sector, as with other manufacturing sectors, is also struggling with the impacts of industrial action.

Demand for steel in the domestic market was negatively impacted on by a five-month strike by employees in South Africa's platinum mining sector, which ended in May 2014. This was followed by a month-long strike by members of the National Union of Metalworkers of South Africa and other smaller trade unions in the metals and engineering sector in July 2014.

In addition, electricity supply issues and increasing amounts of imports have become significant challenges

Steel consumption growth in South Africa – 2009 to 2015



Source: AMSA integrated annual report 2014

Picture by Duane Daws

for the steel sector. Steel and Engineering Industries Federation of Southern Africa (Seifsa) chief economist Henk Langenhoven has warned that electricity power cuts, or load-shedding, has the potential to "wipe out up to 23% of production" in the metals and engineering sector.

The industry body noted in December 2014 that an estimated R6-billion in manufacturing output and about R1.5-billion in value addition had been lost in the metals and engineering sector alone, owing to the power cuts.

Worldsteel's Steel Statistical Yearbook 2014, released in November of that same year, showed that South Africa's imports of semifinished and finished steel products had increased from 432 000 t in 2003 to just under 1.76-million tonnes in 2013. This was partly as a result of the slowdown in Chinese demand for steel products, which resulted in a heightened export focus by producers in that country on South Africa and other emerging markets. The result was a flood of Chinese State-subsidised flat and long products into a contracting domestic market.

Such was the impact of subsidised Chinese imports that, in November 2014, AMSA formally applied for the

Global steelmaking capacity

At an Organisation for Economic Cooperation and Development (OECD)/South Africa Workshop on Steelmaking Raw Materials steel committee meeting, held in South Africa in December 2014, OECD chairperson Risaburo Nezu noted that the growing disparity between global steelmaking capacity – which has been at overcapacity for several years – and demand had led to the deterioration in steel producers' financial positions. This also impacted on the long-term viability of the industry, he added.

The OECD contends in its report 'Excess capacity in the global steel industry and the implications of new investment projects' that: "Excessive levels of steelmaking capacity have important implications for the steel industry, resulting in oversupply, low prices, weak profitability, bankruptcies and localised job losses." The report further states that, given the international structure of the industry, surplus capacity in one region can shift production in other regions, consequently harming producers in those markets, and creating risks for trade actions and government interventions to protect domestic industries. It can also lead to inefficient energy use and, as a result, negative environmental impacts.

The OECD expects steelmaking capacity to continue growing to 2.36-billion tonnes by 2017, compared with capacity of 2.16-billion tonnes in 2013, with the increased production capacity driven by non-OECD economies, which are expected to increase their share of global steelmaking capacity to 71.5% by 2017.

Nezu noted that government incentives were driving the capacity expansion in many regions, adding that this distorted market-based decision-making for new investments.

Worldsteel expected the dual challenge of excess capacity and raw materials costs to place steelmaking margins under pressure. Director-general Edwin Basson told the Moscow Steel Summit in June 2014 that the world had habituated itself to the strong growth of the Chinese economy over the past two decades.

It was exactly this fast-paced growth, he said, that had caused the excess capacity and a revaluation of steelmaking raw materials, leading to higher costs for steelmakers, especially now that growth in the Chinese economy was slowing down. Further, the scarcity of good-quality raw materials would still result in continued high raw material costs, Basson added.

At the December 2014 committee meeting, Nezu reiterated that steelmaking raw materials were being affected by sluggish demand and overcapacity, which were leading to lower prices. He added that, as more investment was made in mining for steelmaking raw materials, it was unlikely that there would be a rebound in raw materials markets soon.

Source: *Engineering News*

imposition of import duties on Chinese flat and long steel products effect a measure of protection similar to that sanctioned by governments of other developing markets including Turkey, Egypt and Brazil.

AMSA has estimated that imports comprised 40% of all steel consumed in South Africa during February 2015. Domestic steel demand has, perhaps most tellingly, also stagnated in recent years amid slow economic growth and slow progress in the roll-out of the country's R847-billion public-sector infrastructure development plans.

Despite this, government is confident of an upturn in domestic demand for steel in the next decade, with Trade and Industry Deputy Minister Mzwandile Masina having told delegates at a December 2014 Organisation for Economic Cooperation and Development/South Africa Workshop on Steelmaking Raw Materials, held in South Africa, that implementation of the National Development Plan (NDP) would lead to higher demand for steel.

He outlined that upstream and downstream steel demand would grow by between 6% and 10% to 2024, mainly owing to government implementing 18 strategic infrastructure projects – consisting of more than 600 component projects outlined in the National Infrastructure Plan – covering the rail, energy, education and water and sanitation sectors, besides others.

The NDP envisages increasing capital expenditure to 30% of GDP by 2030, from the current 17%, as well as increasing public infrastructure spend to 10% of GDP.

Global stainless steel production

Global stainless steel melt shop production increased by 8.3% year-on-year, to 41.7-millions tonnes in 2014, the International Stainless Steel Forum (ISSF) has stated.

Output increased in all regions, except for Central and Eastern Europe, where output fell by 6.3% year-on-year to 296 000 t, compared with 277 000 t in 2013. In 2012, the region produced 359 000 t of stainless steel.

The biggest growth was experienced in the Americas, where production increased by 14.6% year-on-year to 2.8-million tonnes.

Asia, excluding China, saw a 0.6% year-on-year increase in output to 9.3-million tonnes of stainless steel, while China increased its production by 14.3% year-on-year to 21.6-million tonnes.

The ISSF noted that production in Western Europe and Africa increased by 1% year-on-year to 7.5-million tonnes.

Source: *Engineering News*

AMSA argues that, to achieve the NDP growth objectives, South Africa will need to increase domestic steel supply by 8.3-million tonnes a year, much of which can be delivered by local producers.

Based on its mid-2014 production levels, AMSA says it has 2.3-million tonnes of reserve capacity to meet nearly 27% of the projected additional demand.

However, the steel producer, which recently completed the R2-billion reline of the blast furnace at the Newcastle mill, in KwaZulu-Natal, has decided not to immediately ramp up the plant to its expanded 1.9-million-ton-a-year nameplate capacity, owing to weak domestic- market conditions.

AMSA CEO Paul O'Flaherty has said that, while the JSE-listed group's 'fill the mills' strategy remains largely intact and is helping to lower costs, particularly at its Vanderbijlpark operation, in Gauteng, it would be "financial suicide" for Newcastle to pursue the strategy in the current environment. Output is also being curtailed at the company's export-focused Saldanha operation, in the Western Cape.

O'Flaherty describes the South African steel market as being under "severe pressure", noting that, in the absence of import protection, the domestic market is currently heavily exposed to cheap imports, especially from China.

As a result, the group has decided to maintain Newcastle's daily output at 4 300 t instead of operating it at its 5 200 t daily potential. However, Newcastle GM Gerald Gadd has stressed that the mill will require only between four and six weeks to ramp up to full capacity, should market conditions improve.

O'Flaherty has said that the investment is "an investment in the future", which has been pursued despite the difficult economic circumstances in South Africa. He argues, however, that in the absence of private investment in infrastructure and the weak mining and manufacturing climate, government needs to do more to raise infrastructure spending as outlined in the NDP and detailed in the National Infrastructure Plan.

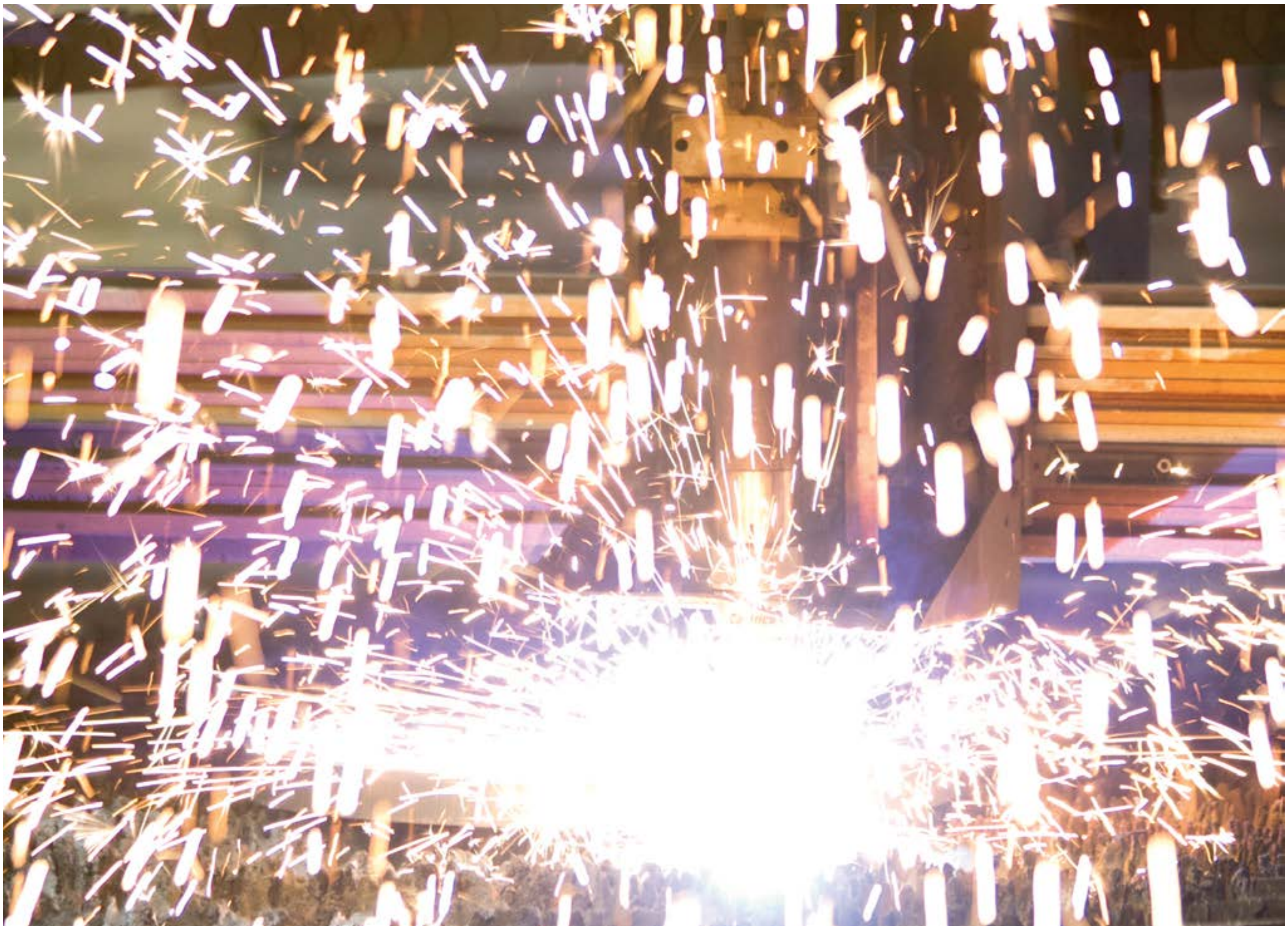
Meanwhile, the cyclic decline in metal prices has delivered its first casualty, with South Africa's second-largest steel producer Evraz Highveld Steel and Vanadium announcing in April this year that it was starting voluntary business rescue proceedings in terms of Section 129 of the Companies Act. The company cited an inability to meet its short-term obligations, as a result of historical operating difficulties and sustained financial losses within a capital-constrained operating environment. The decision came despite the recent implementation of a turnaround plan to improve the steelmaker's fragile financial position, which had been negatively impacted on by weakened global steel and vanadium markets and a "severe" reduction in domestic steel demand.

O'Flaherty has described Evraz Highveld's predicament as bad news for South Africa, for the company's 3 000 workers and for the "depressed" Emalahleni area, in Mpumalanga.

Should the plant be forced to close or curtail production, AMSA would be able to absorb only some market share in overlapping product segments, while the rest of Evraz Highveld's production would be lost to imports. The Mpumalanga-based mill can produce about 800 000 t/y of long and flat products, but has recently been producing at far lower levels.

AMSA has stated that is has no intention of making a bid for Evraz Highveld.

Plans are under way, however, to establish a third large-scale steel producer. In September 2014, the Industrial



Picture by Duane Daws

Development Corporation (IDC) and Chinese steel producer Hebei Iron and Steel signed a memorandum of understanding for the development of a two-phase $4.5-billion steel mill development project, in South Africa's Limpopo province. Hebei will own a 51% stake in the mill, on which construction is expected to start this year.

The first phase, to be established at a cost of $2.8-billion, is expected to produce three-million tonnes a year of flat and long steel products. Capacity will be expanded to five-million tonnes a year by 2020 through an additional $1.7-billion investment. The second phase will aim to produce steel products and grades that are not locally manufactured.

The plant will use the iron-ore produced in the Phalaborwa region of Limpopo to produce the steel. Hebei and the IDC are part of a consortium that acquired a 74.5% stake in Palabora Mining in 2013, giving it access to the Palabora copper mine, which has a 240-million-ton magnetite dump.

Given the current oversupply in local steel production, the new steel mill is reportedly being built to supply not only the South African market but also the rest of sub-Saharan Africa, where steel demand is expected to increase to 31-million tons by 2020.

Government is also hoping that the entrance of this latest steel producer will drive competition in the local market and result in producers charging lower prices.

Government continues to pursue the implementation of a developmental steel price, which it contends will enable downstream customers that use locally produced steel to benefit from competitively priced raw materials.

Trade and Industry Minister Dr Rob Davies and Economic Development Minister Ebrahim Patel are dissatisfied with the manner in which steel prices are being determined in the local market and have indicated that they might use the Competition Act to achieve government's goal of setting steel prices.

Government and industry do not agree with regard to the proposed developmental steel price, with the Department of Trade and Industry (DTI) countering that offering discounted prices for key inputs like steel to the local manufacturing sector will improve the country's competitive advantage and help it secure more foreign direct investment for key local manufacturing sectors. Government also maintains that AMSA is charging excessive prices to domestic customers.

AMSA, however, argues that steel prices must be competitive and O'Flaherty has said that he will host bilateral working groups with the DTI, the Department of Economic Development, the IDC and the Competition Commission during 2015 to discuss various issues, including steel pricing.

Outlook

Worldsteel forecasts that global apparent steel use will increase by 0.5% to 1.54-billion tonnes in 2015, following growth of 0.6% in 2014.

Meanwhile, world steel demand in 2016 is expected to increase by 1.4%, reaching an estimated 1.57-million tonnes.

China is still the biggest producer and consumer of steel and, as a result, its moderating economic growth rate is expected to have an impact on South Africa's and the global steel sector. Chinese steel use will continue to record negative growth of -0.5% in 2015 and 2016. In the medium term, no strong rebound is expected. Some uncertainty remains regarding the impact of measures by the Chinese government to stabilise the decelerating economy.

The rebalancing of the Chinese economy is inevitable as China enters its next stage of development, but it will take time.

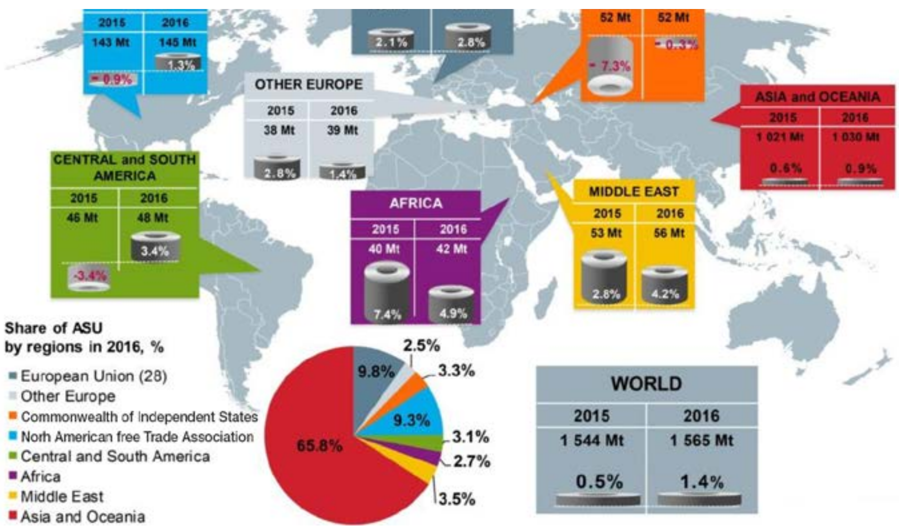
Steel demand in the developed economies will increase by 0.2% in 2015 and by 1.8% in 2016, while demand in developing countries is expected to increase by 4% in 2016 after growing by 2.4% in 2015.

Commenting on the outlook, worldsteel Economics Committee chairperson Jurgen Kerkhoff said in the association's 'Short Range Outlook 2015 – 2016' report, released in April 2015, that it was releasing a restrained growth outlook for the global steel industry, owing mainly to deceleration in China.

The forecast reflected the effect of major structural adjustments in most economies, particularly owing to limited investment growth post 2008.

"As these changes take effect, the steel industry will experience a slower pace of growth, and it will focus on operational efficiencies and on the value that steel products generate for customers and society," Kerkhoff said.

worldsteel short-range outlook 2015 to 2016 – regional outlook



Source: worldsteel

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