

Metals Deals

Forging Ahead 2010 Annual Review

*Mergers and acquisitions
activity in the metals
industry*



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Methodology

Metals Deals 2010 is based on published transactions from the SDC Platinum (Thomson Reuters) database, January 2011. Analysis encompasses only those deals which are completed in the calendar year, except for figure 4 which is based on pending deals. Deal values are the consideration value announced or reported including any assumption of debt and liabilities. Figures relate to actual stake purchased and are not extrapolated to 100%. The geographical split of the deals refers to the location of the target company or assets. Deals located in the territory of the Russian Federation are included in the totals for central and eastern Europe. The analysis relates to target companies in the supply chain for metals and basic metal products, including recycling. The sector and subsectors analysed includes deals for targets with primary SIC codes that fall into one of the following industry groups: iron ores; ferroalloy ores, except vanadium; steel works, blast furnaces, rolling mills, and finishing mills; iron and steel foundries; primary smelting and refining/nonferrous; secondary smelting and refining/nonferrous; rolling, drawing, and extruding/nonferrous; nonferrous foundries; miscellaneous primary metals products; and metals service centres and offices. Comparative data for prior years may differ to that appearing in previous editions of our annual analysis or other current year deals publications. This is a result of the use of a different data source, methodological differences or refinements in methodology and consequent restatement of the input database.

Introduction



Contrasting conditions in western and developing economies continued to provide the backdrop to metals deals activity in 2010. The result was a two speed dynamic behind deal-making with Asian and Brazilian buyers delivering much of the deal momentum while deal activity by western companies remained subdued. Russian companies, who had played a prominent role in previous years, largely stayed away from the deal table as they focused on integration and rationalisation of portfolios and lower demand.

Metals Deals 2010 reviews deal activity in the metals industry. The report is the latest annual review edition in our Forging Ahead series on deal-making in the sector. It sits alongside our quarterly Forging Ahead reports and is one of a range of deals publications from PricewaterhouseCoopers, covering sectors including mining, aerospace & defence, power and renewable energy. Together the family of deals reports provide a comprehensive analysis of M&A activity across industries world-wide.

We examine the rationale behind the overall deal trends and look at the key individual deals. We analyse the year under review and look ahead to the future direction of deal-making in the sector. This year's edition includes an interview with the Group Chief Financial Officer of Tata Steel, Koushik Chatterjee, gaining his views on the M&A landscape and investment opportunities, and what key trends we can expect to see in the near future. Drawing on our global experience as an adviser to metals industry M&A players, our commentary addresses all key markets in the sector.

Looking ahead, the story for 2011 will again be linked closely to demand and economic recovery. 2011 could see a return to the hectic deal pace of 2008. Asian and South American companies will continue to be active deal-makers as they move to meet home market demand, and the corresponding need for raw materials, as well as position themselves for growth in wider markets. In Japan, Nippon Steel and Sumitomo Metal have announced their intention to complete a merger by 2012 which could see the consolidated company move to number two in world crude steel output. This could be the trigger for further consolidation. Confidence will be key for companies in the mature, developed markets where recovery is asserting itself but remains inconsistent. If confidence does take root, 2011 could see a take-off in deal activity and value with western companies stepping up their deal activity.

A handwritten signature in black ink, appearing to read 'Jim Forbes', written over a thin horizontal line.

Jim Forbes
Global Metals Leader

Report highlights

Deal making comes up off the floor

Deal making picked up in 2010 after the lows of 2009. Total deal value rose 78%, from US\$15.1bn to US\$27bn. While the recovery looks large in year-on-year terms, it is modest compared to the highs of US\$86.4bn and US\$144.7bn reached in the M&A boom years of 2006 and 2007. There was a revival of larger deals. All of the largest five deals completed in 2010 topped the US\$1bn mark compared with only two the previous year. Pending deal flow indicates this upward trend in deal sizes will become even more evident in 2011.

Security of raw materials supply the number one concern

With commodity prices rising and miners exerting pressure on contracts, vertical integration to secure raw materials was a dominant theme. Two of the top three metals deals completed in 2010 were for iron ore resources. There were a number of resource purchases by Japanese and Chinese companies in South America and Africa. Reflecting these moves, deals in the 'other metals' category, mainly iron ore, continued to take a greater share of total metals deal value – up to 57% in 2010, from 49% in 2009, 29% in 2008 and just 4% in 2007 and 2006 (see figure 6). Similarly, as we predicted last year, Africa began to feature prominently as a focus for deal-making, accounting for 13% of total target deal value in 2010.

International deals shoot upward

After a year of quiet deal activity and focusing on home markets in 2009, many companies returned to the cross-continental acquisitions trail with moves to optimise their global production and distribution footprints. Deals such as those by South Korea's Posco, Japan's JFE Steel and Australian company OneSteel illustrated this trend. Together with the focus on raw materials deals, this helped push the number of cross-border deals up 46% year on year, from 129 to 188 with total cross-border deal value more than trebling, from a low of US\$4.4bn in 2009 to US\$14.3bn in 2010.

Deal breakout potential in 2011

2011 could be a breakout year for metals deals. With healthy balance sheets and with reduced economic uncertainty, many companies may judge that the time is right to step up deal activity in response to the continuing imperatives of consolidation, raw materials security and increasing their presence in growth markets. Already, the largest five deals announced in 2010 or early 2011, pending anticipated completion later in 2011, total around US\$17bn – up 60% on the US\$10.6bn value of the largest five deals that completed in 2010.

Deal totals

Recovery was the name of the game for 2010 deal-making in the metals sector as deal numbers and values picked themselves off the floor reached in the previous year. Continued demand buoyancy in developing markets was accompanied by tentative economic recovery and an easing of financial conditions in western markets. Total completed deal value in the sector rose 79% in 2010 to US\$27bn, albeit from a very low base of US\$15.1bn in 2009 (figure 1).

Deal numbers remained at very high levels, rising 5.2% on already record 2009 volume (figure 2). One of the distinguishing features of recent years is that, unlike other downturns, deal activity continued to be fairly intense, albeit for much lower values. Indeed, like 2009, more deals were completed in 2010 than any previous year in our reporting series. Companies had moved early in the downturn to safeguard balance sheet health and, while western economies suffered, developing economies remained on a high growth path. Iron ore companies and companies with integrated operations, covering mining and metals, benefited from a sustained period of high commodity prices.

A major theme in 2010 was positioning to give companies greater penetration of growth markets. After a period when companies largely focused on deals close to home, international deal activity rebounded back vigorously in 2010. The number of cross-border deals rose

46% year on year, from 129 to 188, and total cross-border deal value more than trebled, from a low of US\$4.4bn in 2009 to US\$14.3bn in 2010 (figure 2). But this deal value remains well below the total cross-border deal value recorded in the three M&A boom years of 2006-2008 when annual totals reached US\$67bn, US\$98bn and US\$38bn respectively.

Significant cross-border deals included Japan's JFE Steel Corporation's US\$1bn minority stake in Indian steelmaker JSW Steel and OneSteel's US\$1bn takeover of Anglo American's grinding media and steel products businesses (see Asia Pacific chapter for both deals). The dominant theme, though, in 2010 was continued deal activity to secure raw materials supply. Moves to reach down the supply chain to secure raw materials resources, and thereby ease reliance on the annual pricing cycle, continue to be an important feature of the metals deals landscape. They were given an extra spur by concerns about the planned,

but abandoned, Australian joint iron ore venture between BHP Billiton and Rio Tinto and pressure by miners for buyers to move to quarterly pricing of ore contracts.

The increase in cross border deals is being led by moves to secure raw materials supply and to gain a greater presence in fast growth markets. With Chinese companies mainly concentrating on consolidation of the sector within China, it is companies from other territories that are leading the break-out. Japanese (US\$4bn worth of cross border bidder activity), Brazilian (US\$2.5bn), western European (US\$1.4bn), north American (US\$1.3bn) and Australian buyers (US\$1.2bn) all accounted for a greater amount of international metals deal activity than their Chinese counterparts (US\$1.1bn). South Korean bidders, with US\$0.7bn, were the other significant international bidders.

Two of the top three metals deals completed in 2010 were for iron ore resources with moves, totalling US \$4.4bn, by Brazil's Vale into west Africa (US\$2.5bn) and Japan's Sumitomo Corporation into Brazil (US\$1.9bn) (see next chapter). There were a number of resource purchases by Japanese and Chinese companies in South America and Africa, including Japan's Mitsubishi Corporation's completion of a US\$924million deal to increase its stake in Chilean iron ore miner Cia Minera del Pacifico. The trend toward greater vertical integration to secure raw materials was reflected in a rise in the total value of deals in the 'other metals' category, many of which are iron ore. The 'other metals' total deal value more than doubled – from US\$7.3bn in 2009 to US\$15.5bn in 2010 – with the number of cross border 'other metals' deals increasing from 77 to 128 year-on-year as companies went further afield to secure resources (see figure 5).

Figure 1: Total metals deals, 2003-2010

	Number	Cross border number as % of total number	Value (US\$bn)	Cross border value as % of total value
2010	548	34%	27.0	53%
2009	521	25%	15.1	29%
2008	397	38%	60.6	62%
2007	411	35%	144.7	68%
2006	385	29%	86.4	73%
2005	250	40%	34.8	49%
2004	166	40%	37.0	31%
2003	164	30%	16.1	60%

Source: PricewaterhouseCoopers Forging Ahead deal analysis, using data from Bloomberg, mergermarket, Thomson Financial and PricewaterhouseCoopers analysis.

Figure 2: Cross border and domestic metals deals, 2009-2010

	Number of deals		Value (US\$bn) % change
	2009	2010	
Cross border	129	188	+45.7%
Domestic	392	360	-8.2%
Total	521	548	+5.2%

	Deal value (US\$bn)		% change
	2009	2010	
Cross border	4.4	14.3	+225.0%
Domestic	10.7	12.7	+18.7%
Total	15.1	27.0	+78.8%

Deal makers

The days of blockbuster table-topping deals remain absent but the pick-up in more modest large deal sizes is reflected in the top ten completed deals of 2010. All of the largest five deals completed in 2010 topped the US\$1bn mark compared with only two the previous year. These values were all the more significant as four of the five were for stakes ranging from 30% to 68% of the target shares rather than single purchases of 100%. And the upturn in deal volumes is getting into its stride, as evidenced by the flow of recently announced deals. Three of the top five deals announced but not completed in 2010, but which remain open going into 2011, are for values in the US\$2-5bn range.

Although there were no big blockbuster moves completed, there was no shortage of ambitious intent. During the year, headlines continued to be grabbed by the attempt by Rio Tinto to form an iron ore joint venture with BHP Billiton which, if it had completed, would have had a major impact on the sector. At the same time, Aluminium Corporation of China (Chinalco), while stepping back from its original US\$19.5bn deal with Rio Tinto, continued its long-standing partnership with the mining giant. The two companies finished the year with the December 2010 announcement of an exploration joint venture in China that will comprise between three and five large exploration projects with the potential for additional regions to be added at a later date. Earlier in the year, they announced a joint venture to develop iron ore resources in Guinea, west Africa (see below).

The largest deal completed in 2010 was Posco's US\$2.8bn acquisition of a controlling stake in trading and resource company Daewoo International. Posco is the world's fourth largest steelmaker. The deal provides the company with considerable growth potential through Daewoo's global sales channel which majors on undeveloped areas such as the Middle East and Africa. Posco will also secure Daewoo's overseas resource development know-how, developed in projects such as Australia's Narrabri

bituminous coal mine and Madagascar's Ambatobi nickel mine, and greater capability to secure scarce metals including magnesium, lithium, titanium, and zirconium.

Global expansion by companies like Posco is being evidenced in strategic partnerships as well as M&A. For example, in July 2010, Posco teamed up with Brazilian iron ore miner Vale to develop a joint steel plant project in northeast Brazil. Brazil is a major growth market for steel but no new steel making ventures had been developed in the country in recent times before the latest growth phase. In June 2010 the first new steel mill complex for many decades came with the start-up of ThyssenKrupp CSA Siderúrgica do Atlântico (TKCSA), the largest private investment undertaken in Brazil in the last 15 years. The project is the result of a partnership, with investment totalling some US\$8.2bn, between ThyssenKrupp Steel, Germany's biggest steel producer, which has a majority stake (73.13%) in TKCSA, and Vale, the world's biggest producer of iron ore, which owns the other 26.87%.

Figure 3: Top ten metals deals 2010

Rank	Completion Date	Target	Sector	Bidder	Target Nation	Bidder Nation	Value (\$m)
1	24 Sept 2010	Daewoo International Corp	Steel	Posco Co Ltd	South Korea	South Korea	2,833
2	30 Apr 2010	BSG Resources Guinea Ltd	Other Metal	Vale SA	Guernsey	Brazil	2,500
3	28 Dec 2010	Mineracao Usiminas SA	Other Metal	Sumitomo Corp	Brazil	Japan	1,930
4	20 Jan 2010	Handan Iron & Steel Co Ltd	Steel	Tangshan Iron & Steel Co Ltd	China	China	1,689
5	30 Aug 2010	Gerdau Ameristeel Corp	Steel	Gerdau Steel North America Inc	Canada	Canada	1,607
6	7 Oct 2010	JSW Steel Ltd	Steel	JFE Steel Corp	India	Japan	1,029
7	23 Dec 2010	AltaSteel Ltd	Steel	OneSteel Ltd	Canada	Australia	932
8	27 Apr 2010	Cia Minera del Pacifico SA	Other Metal	Mitsubishi Corp	Chile	Japan	924
9	20 Jan 2010	Chengde Xinxin Vanadium & Titanium Stock Co Ltd	Steel	Tangshan Iron & Steel Co Ltd	China	China	826
10	27 Sept 2010	BAHIA Minerals BV	Other Metal	Eurasian Natural Resources Corp PLC	Brazil	United Kingdom	735

Figure 4: Top five deals still pending at year end 2010

Rank	Date Announced	Target	Sector	Bidder	Target Nation	Bidder Nation	Value (\$m)
1	5 February 2010	Vale SA-Aluminum Operations	Aluminium	Norsk Hydro ASA	Brazil	Norway	4,900
2	25 October 2010	CommScope Inc	Other metal	Carlyle Group LLC	United States	United States	3,020
3	9 June 2010	Hangang Hanbao Iron & Steel Co Ltd	Steel	Hebei Iron & Steel Co Ltd	China	China	2,345
4	16 December 2010	Anshan Iron & Steel Group Corp- Assets	Steel	Pangang Grp Steel Vanadium	China	China	1,728
5	22 November 2010	Draka Holding NV	Other metal	Tianjin Xinmao Science & Technology Co Ltd	Netherlands	China	1,367

Alongside growth, the other big theme is vertical integration of the supply chain to secure raw materials supply. The largest deal announced but not completed during 2010 was an example of both themes (figure 4). When it is completed, Norsk Hydro's announced US\$4.9bn deal with Vale will give the Norwegian aluminium and power company control of Paragominas, the world's third-biggest bauxite mine, as well as Vale's alumina refining and aluminium production facilities in Brazil. The takeover gives Hydro greater access to alumina, which is the main raw material for the production of primary aluminium, for the next 100 years. We list the largest deals that were announced but not completed at the year end in figure 4. Further details of some of these deals are given in the relevant regional chapters.

As we predicted in last year's report, there was a flurry of deal-making for raw material supplies in Africa. Activity to secure African mineral resources was evidenced by Vale's US\$2.5bn purchase of a 51% interest in BSG Resources (Guinea), which indirectly holds iron ore concession rights in the undeveloped Simandou iron ore deposit in Guinea. Rio Tinto owns 95% of the Simandou project. Simandou is a large, high quality hematite deposit with the potential to yield around a quarter of Rio Tinto's massive worldwide iron ore production. In a deal, announced but not completed in 2010, Chinalco set out plans to team up with Rio Tinto, with a US\$1.35bn investment giving it a 47% stake in a joint venture to develop the Simandou project.

The resource potential in western and central Africa is huge but typically requires major infrastructure as well as exploration investment. In the case of the Vale/BSG venture in Simandou, the two companies will need to invest in a logistics corridor for shipment through Liberia and are committed to renovate 660 km of the Trans-Guinea railway for passenger transportation and light commercial use.

Brazil is also a major hunting ground for iron ore supply and the third largest completed deal of 2010 continued a trend of inbound acquisitions by Asian companies. Japanese trading company, Sumitomo Corporation, whose activities include substantial steel and other metals production, acquired a 30% stake in Brazilian iron ore mining company Mineracao Usiminas from Usinas Siderurgicas de Minas Gerais (Usiminas). The US\$1.9bn spin off by Usiminas came at a time of surging iron ore prices as steelmakers sought to fulfil Asian demand and stabilise raw material cost.

In a move that reflected both the economic climate and the increased globalisation of steel companies, Gerdau bought out the remaining shares it did not already own in Gerdau Ameristeel. Gerdau Ameristeel is the second largest mini-mill steel producer in North America, with an annual manufacturing capacity of approximately 10 million metric tons of mill finished steel products. Gerdau had acquired its original majority stake in Ameristeel in 1999. The US\$1.6bn full buy-out gives Ameristeel access to cheaper funding because of Gerdau's stronger

credit rating, enables the consolidated company greater flexibility to respond to different levels of demand in the South and North American markets as well as the opportunity to gain efficiencies.

Consolidation among Chinese steel companies was another theme reflected in the largest 2010 deals (see Asia Pacific chapter). Overall, the steel sector accounted for 40% of total 2010 metals deal value with transactions in the 'other metals' category, many of which are iron ore, delivering most of the remaining deal value. Deals for other metals continued to take a greater share of total metals deal value – up to 57% in 2010, from 49% in 2009, 29% in 2008 and just 4% in 2007. Activity in the aluminium industry remained subdued although, when completed, the US\$4.9bn Norsk Hydro/Vale aluminium deal will boost 2011 totals. These sector differences reflect the quest for raw materials, principally iron ore, and differences between the extent of consolidation in the different parts of the industry. In both steel and iron ore, consolidation continues to remain far less advanced than in aluminium.

Figure 5: Deal making by industry sector

Steel	2009	2010	% change
Domestic			
Number	115	113	-1.7%
Value (US\$bn)	6.1	8.2	+34.4%
Cross border			
Number	40	47	+17.5%
Value (US\$bn)	1.4	2.5	+78.6%
All deals			
Number	155	160	+3.2%
Value (US\$bn)	7.5	10.7	+42.7%

Aluminium	2009	2010	% change
Domestic			
Number	31	20	-35.5%
Value (US\$bn)	0.2	0.1	-50.0%
Cross border			
Number	12	13	+8.3%
Value (US\$bn)	0.1	0.6	+500.0%
All deals			
Number	43	33	-23.3%
Value (US\$bn)	0.3	0.8	+166.7%

Other Metals	2009	2010	% change
Domestic			
Number	246	227	-7.7%
Value (US\$bn)	4.4	4.4	0%
Cross border			
Number	77	128	+66.2%
Value (US\$bn)	2.9	11.1	+282.8%
All deals			
Number	323	355	+9.9%
Value (US\$bn)	7.3	15.5	+112.3%

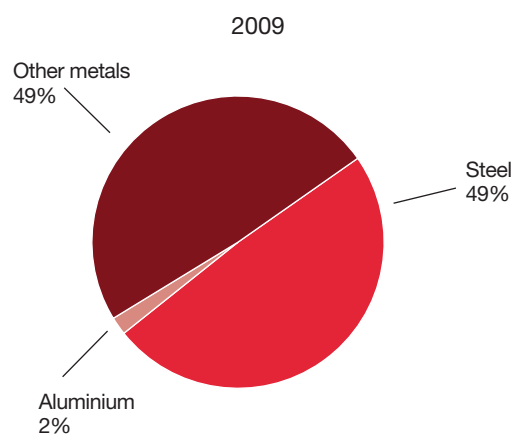
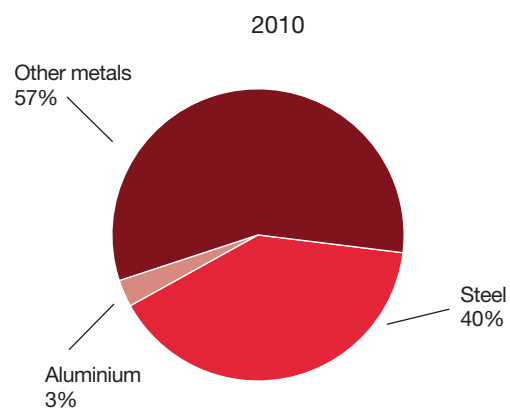


Figure 6: The growing share of 'other metals' (principally iron ore) deals

	2006	2007	2008	2009	2010
Other deals total value (US\$bn)	3.7	6.5	17.3	7.3	15.5
Share of all deals	4%	4%	29%	49%	57%

Deal places

The upturn in deal activity was felt in all regions. The biggest year-on-year increases came in the developed markets of North America and western Europe. But these are regions where deal activity had fallen to the floor in 2009 and the increases in 2010 added little in comparison with the levels of deal value transacted before the recession. Coming off very low bases, total deal value in North America rose from US\$1.6bn in 2009 to US\$4bn in 2010 and in western Europe from US\$0.6 to US\$1.7bn (figure 7).

The geographical centre of gravity for metals deals remains in the Asia Pacific region. The Asia Pacific share of worldwide metals deal value by target had multiplied some ten-fold between 2007 and 2009. In 2010, this share fell back a little, as deal-making in North America and Europe revived and Africa assumed more importance. But the region still accounted for 43% of total metals deals value worldwide. Total deal value for Asia Pacific targets rose 51%, from US\$7.6bn in 2009 to US\$11.5bn in 2010. This US\$11.5bn total was far in excess of the next most targeted regions – South America (US\$5.8bn) and North America (US\$4bn).

The importance of South American targets to worldwide metals deal activity has also grown rapidly in recent years. Deal numbers and total value in the region had risen significantly, reaching a US\$14.8bn total in 2008 before slumping in 2009. In common with other regions, deal buoyancy came back somewhat in 2010, although not as strongly as in other parts of the world. Total deal value rose year-on-year by nearly a fifth, from US\$4.9bn to US\$5.8bn, but this was not enough to prevent a slide in South America's share of total worldwide deal value – down from 32% to 22%.

Figure 7: M&A activity by continent

North America				
	Number	% of all world deals	Value (US\$bn)	% of total value
2009	73	14%	1.6	11%
2010	91	17%	4.0	15%
% change	+24.7%		+150.0%	
Asia Pacific				
	Number	% of all world deals	Value (US\$bn)	% of total value
2009	266	51%	7.6	50%
2010	239	44%	11.5	43%
% change	-10.2%		+51.3%	
Central & South America				
	Number	% of all world deals	Value (US\$bn)	% of total value
2009	30	6%	4.9	32%
2010	33	6%	5.8	22%
% change	+10%		+18.4%	
Western Europe				
	Number	% of all world deals	Value (US\$bn)	% of total value
2009	75	14%	0.6	4%
2010	86	16%	1.7	6%
% change	+14.7%		+183.3%	
Central and eastern Europe (incl. Russia)				
	Number	% of all world deals	Value (US\$bn)	% of total value
2009	77	15%	0.4	3%
2010	85	16%	0.4	2%
% change	+10.4%		0%	
Africa				
	Number	% of all world deals	Value (US\$bn)	% of total value
2009	negligible			
2010	14	2%	3.5	13%
% change	n/a		n/a	

Africa is becoming a significant region for deals as companies focus on its immense raw materials potential. The region accounted for 13% of total worldwide metals sector deal value by target in 2010. US\$3bn of the continent's US\$3.5bn deal value was accounted for by three deals - the US\$2.5bn BSG Resources Guinea deal; a US\$257million Chinese minority stake-building in African Minerals; and Canadian mining and metals company First Quantum's US\$243million acquisition of Zambia miner Kiwara. The first two targets are Guernsey-registered and Kiwara was London-listed. Technically, they are classified as European targets. However, we have separated them out to reflect the asset location.

There had been a shift away from cross-continental towards regional deal-making in the years since 2007. The value share of regional deals rose from 39% in 2007, through 45% in 2008 to 82% in 2009. In 2010 this trend was reversed. Instead, the profile of cross-continental deal-making increased significantly as a result of iron ore and other raw materials deal-making. As a result, the value share of regional deals fell back to 58%. Cross-continental deals for 'other metals', much of which is accounted for by iron ore, totalled US\$9.9bn – a 64% share of the total value of 'other metals' deals and over a third of total metals deal value across all sectors (figure 8).

Figure 8: Regional vs cross-continental metals deals, 2009 & 2010

	Steel		Aluminium		Other Metals		All Sectors	
		% share of total steel		% share of total aluminium		% share of total other metals		% share of all deals
2009								
Regional								
Number	129	83.2%	36	83.7%	276	85.4%	441	84.6%
Value (US\$bn)	6.3	84.0%	0.3	97.4%	5.8	79.5%	12.4	82.1%
Cross-Continental								
Number	26	16.8%	7	16.3%	47	14.6%	80	15.4%
Value (US\$bn)	1.2	16.0%	0.0	2.6%	1.5	20.5%	2.7	17.9%
2010								
Regional								
Number	137	85.6%	25	75.8%	270	76.1%	432	78.8%
Value (US\$bn)	9.4	87.0%	0.6	85.7%	5.6	36.1%	15.6	57.8%
Cross-Continental								
Number	23	14.4%	8	24.2%	85	23.9%	116	21.2%
Value (US\$bn)	1.4	13.0%	0.1	14.3%	9.9	64.0%	11.4	42.2%

North America

Deal activity made a modest recovery from the virtual hiatus, in value terms at least, of 2009. The number of deals for US and Canadian targets rose by a quarter and the total value of such deals trebled year-on-year. But 2010's US\$4bn completed deal total remained small compared with the US\$17.2bn of 2008 and the high of US\$76.7bn recorded in 2007.

The modest rebound that did come in 2010 was wholly attributable to an upturn in deals for steel assets and most of the total deal value came from the two largest deals - Gerdau's buy-out of Ameristeel and OneSteel's takeover of Anglo American's AltaSteel (see earlier deal makers chapter). Together they accounted for US\$2.5bn of the US\$4bn total deal value.

There are signs of increased involvement by private equity (PE) investors in the sector. There were ten completed purchases worldwide in the metals sector by PE firms or funds in 2010 compared to only four such deals in the preceding year. Half of the ten were by US PE firms. Midway through 2010, One Equity Partners from the US completed its US\$632million takeover of Constantia Packaging in Austria whose

activities include the manufacture of semi-finished and cast aluminium products for the processing industries. Later in the year an all-US deal saw Clayton, Dubilier & Rice finalise its US\$306million leveraged buy-out of a majority stake in Tyco International's electrical and metal products business, which makes products that include steel pipes, tubes, and cable.

Together these two PE purchases accounted for 55% of the total value of all deals involving US buyers. Acquisitions by US metals companies were for much smaller values. Canadian buyers also confined most of their activity to smaller deals. Apart from Gerdau Ameristeel which has a Toronto listing, the largest acquisition by a Canadian company was First Quantum's US\$243million expansion in Zambia with its takeover of Kiwara. Without PE and inbound buyers, 2010 total North American completed deal value would have been below the floor reached the preceding year.

However, the early 2011 pending deal flow included two large deals that, on their own, would push 2011 North American deal value well above its 2010 level. Private equity is again providing the momentum behind the first of these - Carlyle Group's US\$3bn bid for CommScope, a manufacturer of cable. The deal was announced in October 2010 and completed in January 2011.

The second big pending deal came with the announcement, in January 2011, by Cliffs Natural Resources that it had entered into a definite agreement to takeover Canadian company Consolidated Thompson Iron Mines in a US\$5bn deal. The deal gives the US buyer access to Asian growth markets through Consolidated's strategic relationship with China's Wuhan Steel. Wuhan owns a 19% stake in Consolidated Thompson. At the time of writing, the proposed deal remains subject to regulatory approval.

Figure 9: M&A activity in North America

2009

North America	Steel	Aluminium	Other metals
Domestic			
Number	7	4	44
Value (US\$bn)	0.1	0.0	0.1
Cross border			
Number	3	2	13
Value (US\$bn)	0.5	0.0	0.9
All deals			
Number	10	6	57
Value (US\$bn)	0.6	0.0	1.0

2010

North America	Steel	Aluminium	Other metals
Domestic			
Number	19	6	45
Value (US\$bn)	2.0	0.1	0.5
Cross border			
Number	2	2	17
Value (US\$bn)	1.0	0.0	0.5
All deals			
Number	21	8	62
Value (US\$bn)	3.0	0.1	1.0

Asia Pacific

Total deal value for targets in Asia Pacific rose significantly in 2010 but the US\$11.5bn total was a long way short of rivalling the US\$16.4bn record high recorded in 2008. The rise was attributable to a revival in US\$1bn plus deals. None had taken place in 2009 whereas there were three such deals in 2010. Deal numbers actually fell by 10% year-on-year but deal values moved up.

Asia, led by China, is the steel powerhouse of the world. The continent's share of world steel production was 63.5% in 2010 (World Steel Association). Asia Pacific deal-making continued to be almost entirely fuelled from within the region with very little outside bidder activity. Chinese and Hong Kong bidders played an important role, accounting for US\$4bn or 35% of the US\$11.5bn total.

There was no repeat of 2009's US\$1bn contribution by Indian buyers to the deal totals – instead Indian purchases dwindled to just US\$93million in 2010. But this was more than offset by big increases from other parts of the continent. South Korean, Japanese and Australian bidders added US\$3.2bn (up from US\$795million in 2009), US\$1.6bn million (up from US\$365million) and US\$1.2bn (up from US\$679million) respectively.

The biggest 2010 deal within the region was Posco's US\$2.8bn acquisition of a controlling stake in trading and resource company Daewoo International (see earlier Deal Makers chapter). The deal was all-Korean and not technically cross border but it was also indicative of significant expansionary intent outside the region, giving Posco first time access to a wider range of distribution channels, including the Middle East and Africa.

A key theme was consolidation in China. The steel industry in China remains fragmented and there is formal, government-backed encouragement for consolidation. The biggest completed deal of this kind was the finalisation of the US\$1.7bn merger of Tangshan Iron and Steel Company with Handan Iron and Steel Company. It formed part of the larger merger of the wider Tangshan and Handan groups to form Hebei Iron and Steel Group, China's largest steel company. Further consolidation came part-way through 2010 with the announcement that Hebei Iron and Steel Company is to buy Hangang Hanbao Iron and Steel Company, a Chinese manufacturer of steel sheets for automobiles and pipe steels used in the oil and gas industry, for an estimated US\$2.3bn.

Outbound deal activity with acquisitions by Asian companies of raw materials and other assets in other continents continued to be an important part of metals deal-making in 2010. Such cross-continental deals totalled US\$6bn with Japanese, Australian and Chinese buyers all featuring in large deals. The biggest was Japanese trading company, Sumitomo Corporation's US\$1.9bn acquisition of a 30% stake in Brazilian iron ore mining company Mineracao Usiminas (see earlier Deal Makers chapter). Another significant raw materials deal, but not completed before the end of 2010, was Chinalco's US\$1.35bn 47% stake in the undeveloped Simandou iron ore deposit in Guinea (see Deal Makers chapter).

Also announced and completed in 2010 was OneSteel's US\$1bn takeover of Anglo American's grinding media and steel products businesses. The move gives the Australian buyer greater positioning in the Americas. Another developed market acquirer was Japan's JFE Steel who took a US\$1bn minority stake in Indian company JSW Steel. This deal provides an interesting example of a developed market acquirer that is looking to source cheap slabs in a low cost country. JSW will receive both a capital infusion and production technology for high-grade automotive steel. It is one of a number of Japanese-Indian alliances in the steel sector. Nippon Steel and Tata Steel and Sumitomo and Bhushan Steel are also engaged in similar agreements around the production of automotive steel in India.

Figure 10: Asia Pacific metals deals, 2006-2010

	2006	2007	2008	2009	2010
Number	154	148	185	266	239
Value (US\$bn)	15.1	7.2	16.4	7.6	11.5

Figure 11: M&A activity in Asia Pacific, 2009-2010

2009

Asia-Pacific	Steel	Aluminium	Other metals
Domestic			
Number	59	13	132
Value (US\$bn)	2.4	0.2	3.1
Cross border			
Number	22	3	37
Value (US\$bn)	0.1	0.05	1.7
All deals			
Number	81	16	169
Value (US\$bn)	2.5	0.25	4.8

2010

Asia-Pacific	Steel	Aluminium	Other metals
Domestic			
Number	47	3	114
Value (US\$bn)	5.8	0.0	2.9
Cross border			
Number	19	10	46
Value (US\$bn)	1.5	0.6	0.7
All deals			
Number	66	13	160
Value (US\$bn)	7.3	0.6	3.6

Central and South America

Deals for targets in Central and South America accounted for just over a fifth (22%) of total metals deal value in 2010. This was down by a third from 2009 when the Sidor nationalisation added nearly US\$2bn to deal totals. Taking out this one-off deal, the underlying contribution of South American deals remained resilient with deal values moving in line with the worldwide metals deals trend.

Brazil delivered the majority of 2010 metals deals total value in the region. Ten of the twelve largest deals in South America were for Brazilian targets. In total, Brazil accounted for US\$4.8bn of the region's US\$5.8bn worth of deals. The remainder was almost wholly accounted for by Japan's Mitsubishi Corporation completion of a US\$924million deal to increase its stake in Chilean iron ore miner Cia Minera del Pacifico.

Deal activity was dominated by inbound raw materials investments, largely by Japanese and Chinese buyers. The largest completed Japanese purchase was Sumitomo Corporation's US\$1.9bn deal for Brazilian iron ore miner Mineracao Usiminas (see Deal Makers). The largest completed Chinese move was by Wuhan Iron and Steel with a US\$400million minority stake in Brazilian iron ore miner MMX Sudeste Mineracao. The focus on iron ore targets in Brazil was a return to the trend in earlier years, in contrast to the lull in 2009 when manufacturing targets were more dominant.

Brazilian company Vale's US\$2.5bn move for BSG Resources (Guinea) was a highly significant but solitary example of an outbound deal for a target outside the region. Vale also featured in a bid that would have had a major impact on the shape of the copper market in Brazil. It withdrew a US\$1.1bn offer for Paranapanema after it could not gain a majority stake via auction. This transaction would have given the acquirer smelting facilities in Brazil as well as an approximate 34% share in the Brazilian market for processed copper products, making Vale a stronger copper competitor to both Xstrata and Anglo American.

The negotiations reflected lingering disconnect between buyer and seller valuation expectations in the M&A market. In this case, Paranapanema stockholders did not accept the tender offer even though Vale increased its offer multiple times. Paranapanema's stock subsequently fell when the deal did not go through.

Figure 12: South American metals deals, 2006-2010

	2006	2007	2008	2009	2010
Number	14	21	31	30	33
Value (US\$bn)	0.9	9.6	14.8	4.9	5.8

Figure 13: M&A activity in central and South America, 2009-2010

2009

Central & South America

	Steel	Aluminium	Other metals
Domestic			
Number	7	0	8
Value (US\$bn)	3.6	0.0	0.8
Cross border			
Number	5	1	9
Value (US\$bn)	0.2	0.0	0.3
All deals			
Number	12	1	17
Value (US\$bn)	3.8	0.0	1.1

2010

Central & South America

	Steel	Aluminium	Other metals
Domestic			
Number	5	0	6
Value (US\$bn)	0.1	0	0.1
Cross border			
Number	3	0	19
Value (US\$bn)	0.1	0	5.6
All deals			
Number	8	0	25
Value (US\$bn)	0.2	0	5.7



Europe (including the Russian Federation)

European metals deal activity recovered slightly in 2010 from the very low levels reached in 2009 but total deal value remained very low subdued. Just US\$2bn was on the table for west and east European targets (once the US\$2.5bn Vale deal for Guernsey-listed BSG Resources and three other smaller deals for raw materials targets in Africa are re-classified as deals for African assets).

European metals companies have had to face higher raw materials and energy costs which they have struggled to pass on in the absence of a clear recovery in all their end markets. Many companies have started to restructure operations to achieve further cost reduction and some emergency refinancing has had to take place.

There are clear signs of an upturn but it remains inconsistent. EU steel production as a whole increased 24.5% year on year in 2010. There were decreases in Greece and Europe but German production surged 34%, according to the World Steel Association. Even so, concerns about raw materials prices led ThyssenKrupp, the country's biggest steelmaker, to call for government and German companies to jointly set up a company to buy key raw materials needed by the industrial sector. Such a move, if it became a reality, would complement upstream M&A as a means of managing supply risk.

There was no pick-up of the cross-continental global consolidation of earlier years. Inbound investors have largely stayed away even in the face of potential distressed buy-out opportunities, choosing instead to focus on raw materials deals or capacity acquisitions in or nearer to newer growth markets. There has, though, been renewed interest from private equity buyers in the sector. The largest deal came with the completion, after EU regulatory clearance, of US private equity firm One Equity's US\$631million takeover of Austrian aluminium, corrugated and flexible packaging supplier, Constantia Packaging.

Also during 2010, Triton, a European PE investor with a strong presence in the Nordic region, bought out Swedish steel producer Ovako's divisions producing bars, chromed bars, tubes and rings, as well as components for the vehicle and general engineering industries. In another significant deal that did not close before the end of 2010, US PE group Apollo and France's sovereign wealth fund acquired a majority interest in Alcan Engineered Products with the seller, Rio Tinto, retaining a 39% share. The parties to both these PE deals declined to disclose the deals' value.

Many companies in central and eastern Europe are still in recovery mode with their ability to conduct significant deals curtailed as they return to profitability but use cashflow to pay down debt. Deal-making for Russian and eastern European targets was largely confined to domestic deals for small or undisclosed sums.

With the exception of the completion of Severstal's final step in its full acquisition of Italian long special steel company Lucchini for an undisclosed value, outbound deals by Russian deals were largely absent in 2010. In previous years, expansionist moves by Russian companies as well as consolidation inside the Russian metals sector, had buoyed European deal totals. Severstal sought to reposition its footprint, exploring options for its loss-making US mills while finishing the year with the announcement of a joint venture with Indian iron ore producer NMDC. The JV is planning to build an integrated steel plant in India with a capacity of between two and five million tpa.

Figure 14: M&A activity in western Europe

2009

Western Europe	Steel	Aluminium	Other metals
Domestic			
Number	19	10	26
Value (US\$bn)	0.1	0.0	0.3
Cross border			
Number	3	5	12
Value (US\$bn)	0.1	0.05	0.0
All deals			
Number	22	15	38
Value (US\$bn)	0.2	0.05	0.3

2010

Western Europe	Steel	Aluminium	Other metals
Domestic			
Number	18	8	27
Value (US\$bn)	0.2	0.1	0.6
Cross border			
Number	13	1	20
Value (US\$bn)	0.0	0.0	0.8
All deals			
Number	31	9	46
Value (US\$bn)	0.2	0.1	1.4

Figure 15: M&A activity in central and eastern Europe (including Russia)

2009

Central & eastern Europe (incl. Russia)	Steel	Aluminium	Other metals
Domestic			
Number	23	4	36
Value (US\$bn)	0.0	0.0	0.0
Cross border			
Number	7	1	6
Value (US\$bn)	0.4	0.0	0.0
All deals			
Number	30	5	42
Value (US\$bn)	0.4	0.0	0.0

2010

Central & eastern Europe (incl. Russia)	Steel	Aluminium	Other metals
Domestic			
Number	24	3	35
Value (US\$bn)	0.1	0.0	0.3
Cross border			
Number	10	0	13
Value (US\$bn)	0.0	0.0	0.0
All deals			
Number	34	3	48
Value (US\$bn)	0.1	0.0	0.3

Looking ahead

Demand continues to be strong in developing markets and, as a result, raw materials prices are expected to remain high. The recovery in developed markets remains inconsistent – strong in some countries but still with the danger that it could be weak or even negative in others. In Japan, Nippon Steel and Sumitomo Metal have announced their intention to complete a merger by 2012 which could see the consolidated company move to number two in world crude steel output with the declared ambition to expand in growth markets overseas.

If confidence returns and is sustained in developed markets, companies in these markets are likely to become more active on the M&A trail and, indeed the Nippon/Sumitomo announcement could be the trigger for further consolidation. Many companies have come through the downturn with relatively healthy balance sheets and may feel that the time is right for acquisitions. Confidence will be the key and, if it does take root, 2011 could see a take-off in deal activity and value with a number of aggressive moves by some companies.

The aftermath of the downturn has left opportunities to acquire production assets to gain market share. Growth acquisitions will be determined by company strategies to reposition geographically to gain greater exposure to growth economies and rationalise capacity in mature, low growth markets. If input prices continue to rise, non-integrated companies will get squeezed and mini mills will not do as favourably. The sector will become increasingly segmented between integrated and non-integrated and the mini mills.

The increasingly elaborate ownership interplay of mining and metals company ownership shares will continue to play a part in opening up access to growth economies. We have already seen this in the first few weeks of 2011 with US company Cliffs Natural Resources' US\$5bn proposed takeover of Consolidated Thompson Iron Mines giving Cliffs a route to China growth through the target's strategic relationship with and minority ownership by Wuhan Steel.

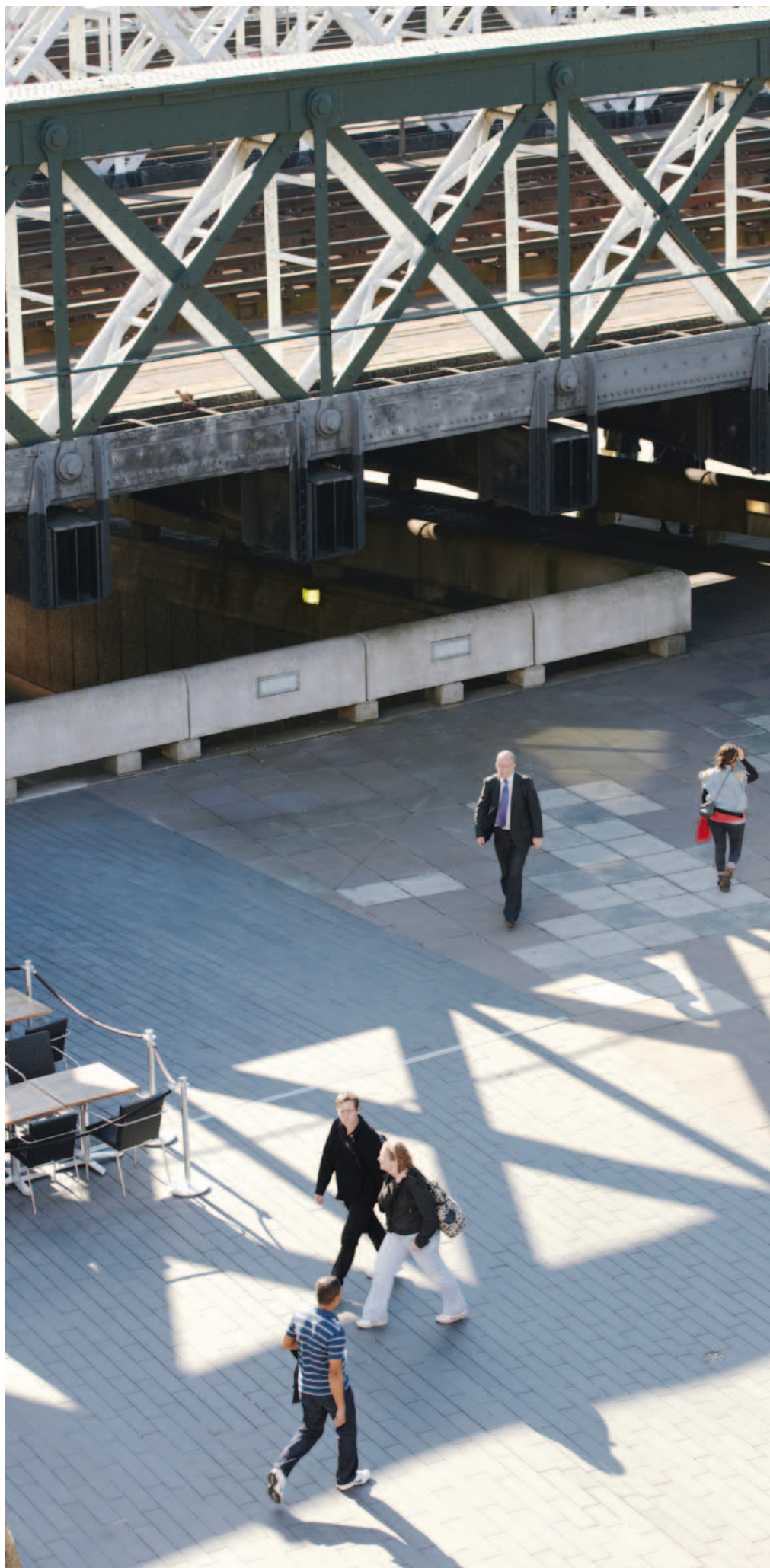
Other deals to gain access to growth markets will take the more direct route of acquisitions of production capacity, joint venture activity such as the Severstal/NMDC proposed partnership in India and capital expenditure investments. One trend to keep an eye on will be the extent to which buyers, from developed countries and the BRIC economies, decide to set their sights away from the main markets on smaller but potentially high growth markets such as some of the VISTA economies (Vietnam, Indonesia, South Africa, Turkey and Argentina) and countries like Thailand.

But the valuations attached to emerging market businesses are very high, resulting in pricing gaps and difficulties closing deals. Despite cash-rich balance sheets and a willingness to invest in emerging markets, many metals corporations are still finding it difficult to expand their presence into these markets not only because of valuation, but also lack of shareholder visibility and financial transparency in these countries. For India in particular, those looking to invest are finding that the complexities of dealing with state and local governments slow down projects.

While acquisitions for growth are likely to be important, much of the deal activity in 2011 will again be focused on raw materials acquisitions as companies seek to continue to integrate vertically to limit exposure and gain upside from high commodity prices. Asian companies will continue to have a significant appetite for such deals but, if confidence firms up in developed markets, western companies are likely to step up their activity as well.

One example of this came in the first two weeks of 2011 as an intense bidding contest for the vast Baffinland iron ore deposit in Canada came to a head with ArcelorMittal and rival private equity bidder agreeing a joint bid. Despite the environmental challenge of exploration in the high Arctic, the Baffinland deposit is attractive because of its Canadian location. But with opportunities in stable geopolitical locations such as Canada and Australia being limited, attention will continue to be focused on the potential in central and west Africa. As in 2010, we expect to see African deals playing a significant part in metals deal activity in the year ahead.

Consolidation will continue to be a strong theme in China where there are hundreds of domestic producers across all of the metal sectors. Chinese entities will continue to be cross-continental buyers of raw materials. Iron ore and coal will remain important but, also, Chinese buyers will be on the hunt for other base metals such as copper, lead, nickel, zinc. Consolidation is also on the cards in North America, spurred by the expected sale of Severstal mills but reinforced by the scope for other portfolio rationalisation.





Interview with Koushik Chatterjee, Group Chief Financial Officer, Tata Steel

Q: How do you think your role has evolved over the past two to three years?

KC: As the Group CFO of a diversified multinational metals and mining corporation, the last three years have been extremely challenging and equally exciting. In the last few years Tata Steel has grown from an India focused company to a multinational corporation. This transformation creates significant challenges even in stable times – the fact that the world witnessed one of the worst global financial crises around the same time, made the job even more challenging. The role of the CFO gets enlarged significantly during a crisis when capital stewardship becomes the key orientation of the company and his role on the deck becomes critical in directing the ship. The same happened to my role as we were working on a double speed engine of growth in India and re-structuring in Europe. The key areas to focus one's attention are capital structure strategy, capital allocation, performance management and portfolio review. I have always believed that the CFO remains the conscious keeper of an organisation and a true trustee of the shareholder. As the 'co-pilot' to the CEO, one needs to stand up and be counted whenever required.

Q: The results of our global CEO survey states that metal companies are counting on innovation to drive revenue. Do you agree with this statement and why?

KC: Innovation essentially results in differentiation whether it is on the process route or on the product portfolio. Steel companies need to continuously innovate to improve their process route to reduce conversion costs while developing new products to help customers make better end products. For example, light weighting steel or improving corrosion resistance qualities. Innovation is a journey in everyday life and is the key to sustaining value creation in the long-term for any company.

Q: What sort of long-term prospects do you see for the steel sector?

KC: Steel is a very important metal for everyday use, whether it is for construction or infrastructure, automobiles, engineering, packaging or transportation. Steel is possibly the one metal that has significant relevance across all usage sectors. It has great relevance for all developed or developing countries. For a developed

country, the usage of steel will be more towards consumption products, while in a developing country it is likely to be more used in fixed asset investments, such as construction and infrastructure. Steel is also a big employment generator and, hence, has a multiplier effect on the economy. I therefore believe that the steel industry has very good prospects. The industry is focusing significant attention on process and product innovation, safety and carbon emissions to ensure long-term sustainability and value creation.

Q: To what extent would you say that Tata Steel is operating on a global basis?

KC: Tata Steel has significant presence in India, South East Asia and Europe. Its operating model is structured in a manner to leverage regional management capabilities and integrate best practices and processes at a global level. We have two CEOs with regional responsibilities for Asia and Europe, and integrated Group functions like Finance, Strategy, Communications, Procurement, R&D, Environment and Health and Safety with global responsibilities. The key perspectives of our integration approach are premised on building the same performance culture, sharing the same passion for value creation and living by the same values. This cannot happen overnight and takes time for any diversified company. I believe that we have done well on this front over the last four years to integrate our mindset as we continue to work on our core objective of enhancing shareholder value.

Q: Do you expect some surprises on the horizon for sector wide M&A in the next three years?

KC: The steel sector certainly has some distance to go in terms of consolidation. Sector consolidation has been slower than the pace at which suppliers or customers of the steel industry have consolidated. Following the global financial crisis, it would certainly be more meaningful to consolidate the sector further to leverage pricing power away from the suppliers to the industry.

However, the logic of consolidation may be different depending on each company's circumstances and it is important to build the strategic rationale for the M&A early to avoid post-integration synergy traps. In countries like China, consolidation is oriented around creating mega-steel companies to leverage their scale of operations for a growing market while the recently announced Japanese mergers will be to reduce overheads and leverage the technology platform in a mature market which is not growing.

In a capital-starved world, I believe it is not always necessary to undertake full-blown acquisitions. Companies can build partnerships with acceptable equity relationships and yet leverage common priorities on markets, technology and competitiveness. This requires a mature mindset which needs to evolve over time. Collaborating to compete is often a more meaningful use of capital in the long run. After the global financial crisis, chasing control through equity ownership will not always guarantee economic success.

Q: Turning to your own company, how would you characterise the balance between M&A for market growth and M&A for resource security? To what extent has the continuing pressure on raw material costs caused a rebalancing between the two?

KC: We have pursued a long-term strategy to build global scale and diversity which gives us market access and management capability to run global operations. In our long-term strategy we have a balance between organic and inorganic growth, especially because we have a leadership position in India. We are currently working on expanding our Indian capacity through brownfield and greenfield growth projects including value-added downstream products. Tata Steel has been a mining company for its captive requirements for a century and, therefore, mining is core to our operating philosophy. We have been looking at international mining opportunities which meet our long-term objectives to enhance the natural resource security that is critical for our steel operations. Therefore, we do not look at deploying capital for market growth and raw material requirements separately but in an integrated manner which needs to align with our long-term objective to create shareholder value.

Q: You've been involved in deals covering many different territories, such as Corus in the UK and Natsteel covering six markets in South East Asia. You're on record as placing an emphasis on 'partnership' in achieving post-deal success. What makes for successful partnership post-deal and how does it vary from territory to territory?

KC: Acquisitions have many complex interplays which are difficult to standardise across geographies. The key issue is to define the M&A philosophy and stay close to it at all times – pre and post the transaction. For us, it is very much a partnership with the aim of taking onboard assets, people and cultures in the journey to create long-term value for the organisation and the shareholders. This is a bit contrarian to the western M&A philosophy which is more focused on integrating manuals and processes on day zero. It is also hard to assess the success of this philosophy in the short-term through financial performance metrics only. However, a determined approach to this philosophy ensures that the organisational 'glue', through a common performance culture with a common organisational aspiration and value orientation, is very strong in the long-term. This approach is difficult to implement and requires a sustained and mature mindset to make things happen.

Q: What do you think are the biggest risks in investing in emerging economies?

KC: Different emerging economies are at different stages of development and there could be several issues which an investor would like to look at. However, I believe that the governance structure of the country, the fiscal position and the robustness of the regulatory system are critical enablers towards foreign direct investment in any country. Investors look for a steady political climate and investor-friendly regulations. Following the economic crisis, I think some of the emerging countries have a real opportunity to attract serious capital investment as economic activities will shift from high cost developed countries to more attractive emerging economies where the consumption pattern is also changing with better demographics. Investing in emerging economies also requires patience and the willingness to adapt to the local cultures. This is critical as these economies are in the process of evolution in terms of their regulatory systems, governance practices and mindset changes to attract foreign capital. I believe countries like India have evolved significantly in the last 15 years and will be a serious destination for foreign capital flows in the future.

Q: Looking ahead, what are your key priorities for M&A in the coming years and do you foresee any significant changes in the factors that will determine deal success?

KC: M&A is one of the execution levers for strategic growth. M&A is not an end in itself but a means to reach one's objective. The basic rule of value-creating M&A will not change but I would stress that the level of pre-deal evaluation needs to be very high in order to test the implications that can potentially flow from the recent global crisis and the current geo-political situation globally.

Q: Why are non-Indian companies investing in India while Tata Steel is looking outside of India for its investments?

KC: India is a growing geography and has great potential for the future across many sectors. Tata Steel has always considered India to be its primary growth base. That is why we have significant plans to deploy capital in India through brownfield and greenfield projects. Our largest capital allocation in the last four years has been in India and that proportion will continue. So it is not true that we are not growing in India. However, as a global company, the capital allocation strategy of Tata Steel focuses on global criteria provided it meets the strategic objectives of the company and delivers the required economic benefits, and that include investments in steel or raw material projects globally.

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