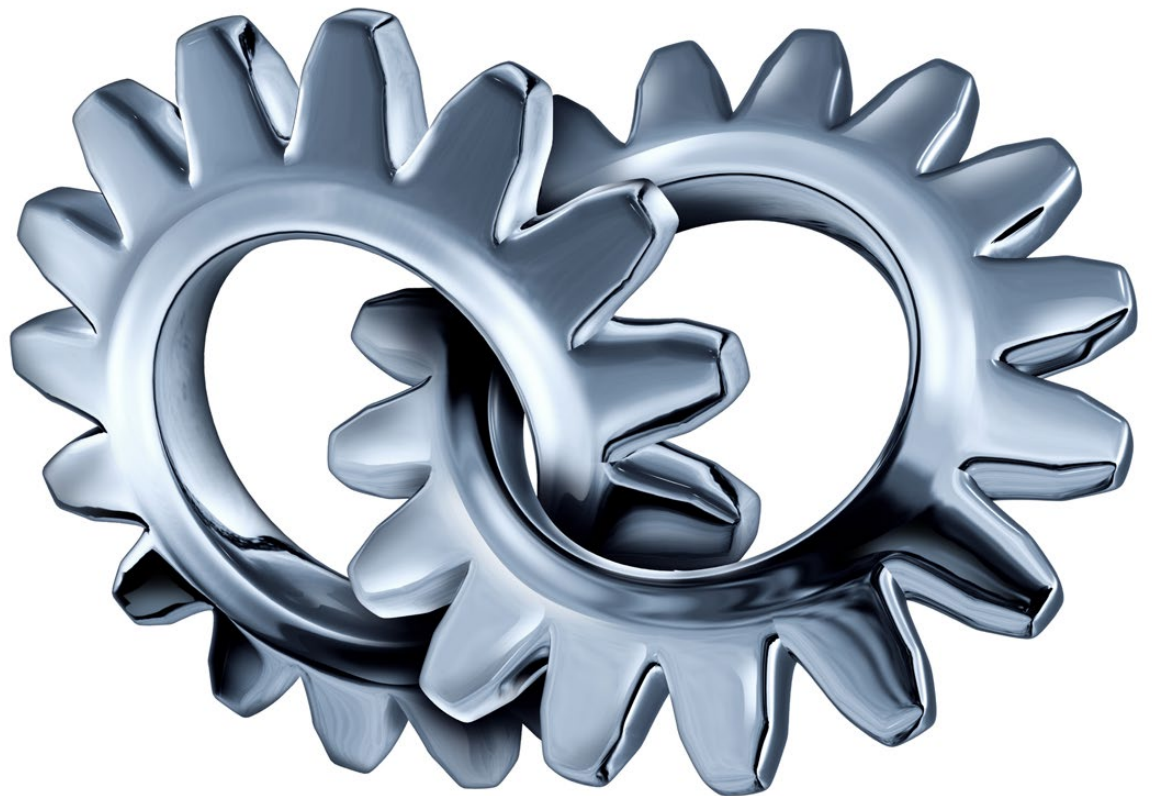


Metals Deals

Forging Ahead 2014 outlook and 2013 review



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Methodology

Metals Deals 2013-14 is based on published transactions from the SDC Platinum (Thomson Reuters) database, January 2014. The report includes data from prior years and is the latest in an annual series of metals deals reports. Comparative data for prior years may differ to that appearing in previous editions of our annual analysis. This can arise, for example, as a result of updated information or methodological refinements and consequent restatement of the input database.

Analysis encompasses only those deals which are completed in the calendar year, except for figure 6 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.

Introduction

Welcome to Metals Deals: Forging Ahead 2014 outlook and 2013 review, PwC's annual analysis of deal activity in the metals industry and our outlook on the prospects for dealmaking in the year ahead. We also take a regional look at what is happening in the main markets around the world.

We open our report with a discussion of the outlook for the year ahead and identify some of the main themes we expect to be at work. Deal activity fell away in 2013 and, while there is some greater economic optimism, we conclude that overall low gear growth combined with continued worldwide production overcapacity doesn't augur well for a strong recovery in metals M&A in 2014.

Looking ahead, we expect to see companies maintaining an inward focus on efficiencies rather than an outward focus on targets. But there will be a continued flow of deals arising from restructuring moves and a number of other themes that we examine in the report. We also see prospects for a geographical rebalancing of metals M&A activity. This has shifted eastward to Asia Pacific in the last two years. Now, with momentum for economic growth coming from the US, driven in part by cheaper energy, we expect to see this reflected in greater North American deal flow.

This report is the latest annual review edition in our *Forging Ahead* series on dealmaking in the sector. It sits alongside our quarterly *Forging Ahead* reports and is one of a range of deals publications from PwC, covering sectors including mining, aerospace & defence, renewable energy, power, and oil & gas. Together the family of deals reports provides a comprehensive analysis of M&A activity across industries worldwide.



Jim Forbes
Global Metals Leader



This report is the latest annual review edition in our Forging Ahead series on dealmaking in the sector.

<http://www.pwc.com/us/en/industrial-products/publications/forging-ahead.jhtml>

2014 deal outlook: a low gear for metals dealmaking

We predicted last year that ‘cautious optimism’ would set the tone for dealmaking in the last twelve months. The mood is brightening a little in 2014. It’s the first year since the start of the global financial crisis to open with the global growth forecast being revised up rather than down. But it’s still too early to declare that the global economy has shaken off the fall-out from the sovereign debt and banking crisis.

The outlook for economic growth is very relevant to the metals sector which is highly cyclical and significantly affected by general economic conditions. Advanced economies are gradually strengthening but there’s a slowing of growth in developing economies and this latter development has the potential to persist.

On the plus side, the slowdown in the Chinese economy has stabilised to a still healthy 7-8% growth trajectory although there is some nervousness about the Chinese economic outlook. The US outlook is brighter and a recovery in Japan has been spurred by Abenomics, with steel demand boosted by the post-earthquake reconstruction effort. But continued momentum in all three countries will require careful structural and fiscal management. In Europe deflation remains a concern in the eurozone and economic growth in many countries is proving stubborn to take root. Plenty of public and debt risks remain and only a complete optimist would see fiscal sustainability as a given.

A moderate strengthening of growth is a reasonable expectation in 2014 but the varying conditions across regions leads the International Monetary Fund

to conclude that “global growth is in low gear, the drivers of activity are changing, and downside risks persist.”¹ ‘Low gear’ growth combined with continued worldwide production overcapacity doesn’t augur well for any strong recovery in the M&A outlook for the sector in 2014. As 2014 unfolds, we believe the following key issues are likely to shape metals M&A activity in the period ahead.

Strong growth needed to overcome overcapacity concerns

If growth remains in a ‘low gear’ it is unlikely to be enough to offset the drag of production overcapacity in the steel and aluminium sectors. Overcapacity is a major structural factor behind a continued depressed metals deal market, making it difficult for buyers and sellers to agree on deal valuations. A stronger and sustainable growth outlook is needed to provide the confidence needed to agree on valuations. If greater confidence comes, and that is a big ‘if’, then a rebound in dealmaking is not out of the question but buyers would need to be convinced that growth momentum was firmly established first.

The long game continues for restructuring

One effect of overcapacity has been to prolong restructuring moves in the sector. It has been extremely difficult to find buyers for even the most modern and efficient production assets. ThyssenKrupp’s disposal of its US assets, scheduled to close in 2014 took a

¹ IMF, World Economic Outlook: transitions and tensions, Oct 2013.

disproportionate amount of time when considering the quality of the assets. And regulatory intervention in Europe has partially unwound the same company's divestment moves, having to take back businesses for later divestment. This will store up further M&A but with an uncertain timetable, prolonging the restructuring for a considerable time further into the future. Conditions in Europe generally remain very constrained, with an outlook of further cost cutting, closures and distress and the possibility of some companies being absorbed on depressed valuations.

Chinese consolidation still in the slow lane

Much of the overcapacity in the sector is in China where there is considerable scope for closure of less efficient production. In October 2013, China's State Council launched a five year plan to tackle overcapacity in five sectors including aluminium and steel. Ahead of this initiative, there have been deals to consolidate among some Chinese companies (see Asia Pacific section). The latest policy move could spur further M&A as well as closures but many observers are sceptical how much will come from this and do not expect things to happen quickly. One barrier is the way local governments have supported the growth of companies in their areas with favourable treatment. Cutting through this will be essential if any real momentum is to be achieved.

An internal focus is likely to trump M&A

Many companies will continue to conclude that using funds to focus on internal efficiencies, cost base reductions and innovation is likely to bring a better return on capital than most M&A moves, apart from any opportunities to shed higher cost facilities or maybe swap these out for more efficient, lower cost plants. Process innovation and control of energy and water consumption will continue to be an important focus. More integrated steel producers are likely to turn their attention to the use of

recycled scrap. And we're also seeing a stronger focus on R&D linked to customer and market needs as steel companies explore the scope for developing higher value-add propositions that can position them away from being purely commodity-based businesses.

Chinese interest turns to gold and copper

A reawakening of interest among Chinese companies for gold and copper resources is taking hold and likely to translate into continued mine acquisitions in the year ahead. After a period of decline for much of 2013, the gold price has had a strong start to 2014 on the back of strong physical demand for the precious metal in Asia. China has overtaken India as the biggest buyer of gold, although whether a price recovery and higher demand will be maintained is far from certain.

Keeping a look out for natural resource value

A slowdown in Chinese demand and sluggish economic growth in emerging markets this year has refocused investment away from the extraction of resources. The era of a rush to secure iron ore assets may have passed but Asian companies continue to keep an active and watchful eye out for suitable iron ore acquisitions. Economic growth in Japan is maintaining competition between Chinese, Japanese and Korean buyers for ore assets. The year ahead may see further activity in iron ore purchases with companies looking to Australia and Canada in particular but also Africa and South America in order to secure further assets. In the aluminium sector, the UAE's expansion plans for its newly merged Emirates Global Aluminium business has led to a US\$5bn agreement to develop a bauxite mine and alumina refinery in Guinea.

A shift in geographical focus

In contrast to previous years, some momentum for economic growth is now coming from the advanced economies, in particular from the US. We are seeing a shift in M&A in the sector that, in

part, reflects this. The advent of shale gas in the US and the expectation that this will lead to a prolonged period of lower relative energy costs is reinforcing this shift. We expect to see this reflected in continued interest by foreign buyers in US assets, as evidenced in the 2014 purchases of ThyssenKrupp's Alabama steel plant by ArcelorMittal and Nippon Steel & Sumitomo Metal Corporation and Sooner Inc.'s casing and tubing business by Marubeni-Itochu Steel.

Mergers and joint venturing

We are seeing more joint ventures (JVs) and, in some cases, mergers as companies look to pool risk and manage capacity while positioning themselves for growth. Two of the largest recent North American metals deals were both JVs - ArcelorMittal's (ACM) and Nippon Steel & Sumitomo Metal Corporation's equal JV purchase of ThyssenKrupp's Alabama steel plant and the acquisition of a 15% joint venture interest in ACM's Canadian iron ore mines by a consortium led by Posco and China Steel Corporation. On the merger front, the 2013 combination of two United Arab Emirates (UAE) state firms to create Emirates Global Aluminium followed the landmark US\$9.4bn Nippon Steel and Sumitomo merger in 2012. We expect to see continued incidence of mergers and use of JVs in 2014 as companies seek to streamline existing capacity and exploit opportunities to add appropriate new capacity.

Financial buyers and private equity

Investor groups and investor companies have been prominent on the buy-side of recent deals in the metals sector. This has been the case in four of the top ten deals in the last year with investment companies involved in deals in Russia and Sweden and South Korean private equity firm EQ Partners part of the Asian consortium that acquired a 15% stake in ArcelorMittal Mines in Canada. This is a trend we expect to continue in the year ahead. In some countries, for example Brazil, there is encouragement to attract private equity into the metals and mining sector.



Modelling metals M&A flow against wider commodities and macroeconomic trends

PwC has conducted an analysis testing the historical relationship of metals sector M&A with a variety of macroeconomic variables and metal commodities indicators. The analysis encompasses factors including: nominal GDP; direct investment levels; trade volumes; and commodity prices. In particular, metals prices and the business cycle are often good predictors of deal activity.

We found strong correlations between trends in metals deal activity and the set of wider metals and macroeconomic measures in the analysis, especially in terms of flows in metals deal announcements. Our updated models produce coefficient of determination (R²) values of 0.710 and 0.876 for announced deal volume and value respectively. We've taken the analysis back over two decades with the following results:

2004-2013

What the analysis predicted:

- 2.9% compound annual growth rate (CAGR) in announced deal numbers.
- -2.7% CAGR in announced deal value.

What the actual outturn was:

- 0.7% CAGR in announced deal numbers.
- 2.8% CAGR in announced deal value.

The fit between actual and predicted deal flow is strongest for deal volume. Deal value is more volatile – while it has statistically significant relationships with economic and metal commodity variables, it can be slightly less certain to predict because of this higher variability compared to the trend in deal volume.

Looking ahead

What the model predicts for the year ahead:

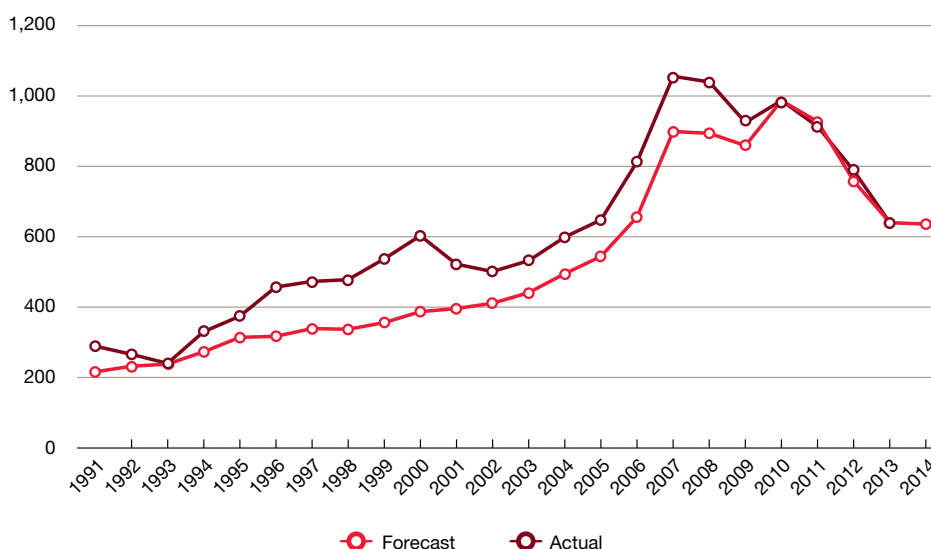
- -0.7% CAGR in announced deal numbers.
- -5.4% CAGR in announced deal value.

These updated models indicate a decline in announced metals M&A in 2014 based on forecasted commodity prices. In our prior year report, our model predicted a significantly higher CAGR for deal volume and deal value, respectively, in 2013. However, actual results fell well below these predictions principally because actual commodity prices differed from what was forecasted in our prior year model. This highlights the fact that the predictions for 2014 hinge largely on the accuracy

of the forecasted commodity prices and GDP for the upcoming year.

We publish the outcome only for announced deals here because the historical analysis indicates that this provides the most robust and strong correlation. Please note that this differs from the analysis in the rest of this report which is based on completed deals.

Announced deal value projections (US\$bn)



2013 deal review

Deal flow: international deals plummet as a double-dip is confirmed

The double-dip in metals deal activity that we saw emerging in last year's report was confirmed in the most recent annual data. Deal numbers fell 30% year on year in a deep double-dip to below the volume recorded in the post-credit crunch year of 2009 (figure 2). Total deal value fell 24% year on year but the depth of the value double-dip was not as pronounced as the volume double-dip. The total 2013 metals deal value of US\$34.8bn was much higher than the US\$15.1bn low in 2009.

Domestic deals dominated in 2013 with a very big shift away from international cross border activity. International deal numbers fell 39% year on year and their value plummeted 79%, from US\$17.9bn in 2012 to just US\$3.8bn in 2013 (figure 2). It's the lowest cross border deal total that we've seen in any year since we started our current time series of data (figure 1), below even the US\$4.4bn recorded in 2009.

International deal activity in steel and aluminium was negligible, as measured by the value of completed transactions. US\$3.5bn of the US\$3.8bn came in the 'other metals' category. Deal activity, in terms of the number of deals, was down across all sectors with the exception of domestic aluminium transactions where the relatively small number of 29 deals held constant year on year.

The only categories that bucked the downward trend were the total value of domestic deals for aluminium and 'other metals' where year on year totals rose (figure 3). In the case of aluminium this was off a very low base due to the impact of the completion of a single very large US\$7.5bn state merger of two United Arab Emirates state firms (see dealmakers section). As we also see in the dealmakers section, it was a flow of big deals that boosted the 2013 'other metals' total. Five of the top ten deals completed in the year were for assets in the 'other metals' category.

Figure 1: Total metals deals, 2003-2013

	Number	Cross border number as % of total number	Value (US\$bn)	Cross border value as % of total value
2013	357	26%	34.8	11%
2012	507	30%	45.8	39%
2011	531	33%	38.2	57%
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: PwC Forging Ahead deal analysis, using data from Bloomberg, mergermarket, Thomson Financial and PwC analysis.

Figure 2: Crossborder and domestic metals deals, 2012-2013

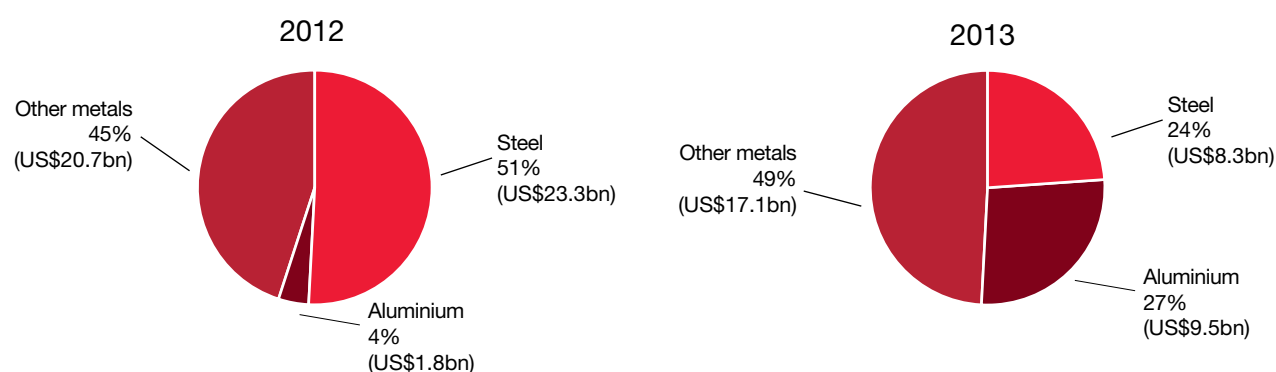
	Number of deals			Deal value (US\$bn)		
	2012	2013	% change	2012	2013	% change
Domestic	354	263	-26%	27.9	31.1	11%
Cross border	153	94	-39%	17.9	3.8	-79%
Total	507	357	-30%	45.8	34.8	-24%

Figure 3: Deal making by industry sector (by target)

Steel	Number of deals			Deal value (US\$bn)		
	2012	2013	% change	2012	2013	% change
Domestic	100	88	-12%	14.9	8.1	-46%
Cross border	41	29	-29%	8.5	0.2	-98%
Total	141	117	-17%	23.3	8.3	-64%

Aluminium	Number of deals			Deal value (US\$bn)		
	2012	2013	% change	2012	2013	% change
Domestic	29	29	0%	1.6	9.4	488%
Cross border	9	7	-22%	0.3	0.1	-67%
Total	38	36	-5%	1.8	9.4	422%

Other Metals	Number of deals			Deal value (US\$bn)		
	2012	2013	% change	2012	2013	% change
Domestic	225	146	-35%	11.4	13.6	19%
Cross border	103	58	-44%	9.2	3.5	-62%
Total	328	204	-38%	20.7	17.1	-17%

Figure 4: Deal making by industry sector (by target)

2013 dealmakers: big deals continue to flow

Although overall deal flow has fallen to below its post credit crunch 2009 low, the flow of completed mega deals was significant. Seven of the top ten metals deals in 2013 were 'US\$1bn plus' compared to only two in 2009. But only two of these deals were new to 2013– the US\$1.1bn move to take the Swedish metals powders firm Hognanas private and the US\$1.1bn purchase of a 15% stake in ArcelorMittal's Labrador Trough iron ore mining and infrastructure assets by a consortium led by POSCO and China Steel Corporation. The remainder of the top ten deals had carried forward from earlier periods pending completion.

The biggest deal completed in 2013 was the US\$7.5bn merger of two Middle East state aluminium firms to create Emirates Global Aluminium. The jointly-held, equal-ownership company brings together the businesses of Dubai Aluminium (DUBAL) and Emirates Aluminium (EMAL). It expects to be the fifth largest aluminium company in the world by production once the second phase of a current expansion programme is completed in mid-2014.

This move in the UAE has been some years in the planning and was first announced in 2011. The new company has set out an intention to look to expand along the value chain, from aluminium smelting to alumina refining and bauxite mining overseas. Dubal already operates the largest single-site smelting facility in the world. As well as completing the merger last year, Dubal and the UAE government's Mubadala Development Corporation extended their interests in west Africa with the purchase of an additional 33.33% stake in Guinea Alumina Corporation from Global Alumina Corp and BHP Billiton.

Two of the top ten deals concerned Russian metals companies. We discuss these in more detail in the Europe section. The remaining top ten deals are also covered in the regional sections that follow. The list of the top five deals announced during 2013 but still pending at the year-end (figure 6) includes the ThyssenKrupp moves and a trio of Chinese steel deals.

The biggest of the top five pending deals, a planned US\$4.9bn share issue by Baotou Steel to various investors, is significant both for its size and as an example of ownership diversification in the sector. The investors include insurance and fund management interests as well as the parent group. The Chinese government has been encouraging diversified ownership of state owned companies. It also echoes moves in other regions with investment buyers becoming interested in buying into the sector.

Figure 5: Top ten metals deals completed in 2013

Rank	Completion Date	Target	Sector	Bidder	Target Nation	Bidder Nation	Value (US\$m)
1	12/06/2013	Dubai Aluminium Co Ltd{DUBAL}	Alum.	Emirates Aluminium Co Ltd{EMAL}	Utd Arab Em	Utd Arab Em	7,500
2	17/08/2013	Sterlite Industries(India)Ltd	Other Metal	Sesa Goa Ltd	India	India	3,911
3	07/01/2013	Titanium Metals Corp	Steel	Precision Castparts Corp	United States	United States	2,611
4	18/11/2013	Chongqing Iron&Steel(Group)Co Ltd Assets	Steel	Chongqing Iron&Steel Co Ltd	China	China	2,112
5	24/04/2013	OAO "Gorno Metallurgicheskaya Kompaniya Noril'skiy Nikel"	Other Metal	Crispian Investments Ltd	Russian Fed	Russian Fed	1,487
6	18/10/2013	Hoganas AB	Other Metal	H Intressenter AB	Sweden	Sweden	1,180
7	30/05/2013	ArcelorMittal Mines Canada Undisclosed Iron Ore Mining Unit	Other Metal	Investor Group	Canada	South Korea	1,109
8	30/04/2013	OOO "Promyshlennyye investitsii"	Other Metal	ZAO "Business Alliance Company"	Russian Fed	Russian Fed	970
9	01/01/2013	Boasteel Zhanjiang Iron&Steel Co Ltd	Steel	Baoshan Iron & Steel Co Ltd	China	China	797
10	15/04/2013	Metals USA Holdings Corp	Other Metal	Reliance Steel & Aluminum Co	United States	United States	771

Figure 6: Top five deals still pending at year end 2013

Rank	Month announced	Target	Sector	Bidder	Target Nation	Bidder Nation	Value (US\$bn)
1	Nov	Baotou Iron&Steel(Group)Co Ltd -Assets	Steel	Baotou Iron&Steel(Group)Co Ltd	China	China	4.92
2	Nov	Acciai Speciali Terni SpA	Steel	ThyssenKrupp AG	Italy	Germany	1.72
3	Nov	ThyssenKrupp Steel USA LLC	Steel	Investor Group	United States	Japan	1.55
4	Aug	Shi Yi Investments Ltd	Steel	Long Grand Ltd	China	Hong Kong	1.29
5	Oct	Yunnan Xiangyun Feilong Recycling Technology Co Ltd	Steel	Ningbo Sunlight Electrical	China	China	1.18

Deal places: deal spotlight continues to shine eastward

The switch in focus of metals deals to Asia Pacific continues. Total target deal value in the Asia Pacific region was down year on year but, at 61%, it still accounted for by far the biggest regional share. This stands in big contrast to just two years ago in 2011 when the share of worldwide target value in the Americas and Europe was 81% and that of Asia Pacific just 19%.

The number of deals fell in every region in 2013 compared to 2012 with the biggest decreases in North America (down 44%) and Asia Pacific (down 35%). But a flow of bigger transaction values led to an upturn in total completed deal value in North America, from a low US\$4.3bn in 2012 to US\$7bn in 2013. In contrast, the total value of targets in the Asia Pacific region was down 32%, but from a much higher US\$31.1bn to US\$21.1bn.

It is in western Europe and South America where deal value has particularly fallen away. Western European target deal value was down 58% year on year. At US\$2.5bn in 2013 is much lower than the US\$9.9bn recorded just two years earlier and far below the US\$20.1bn in the pre-credit crunch year of 2007. But it is still not as low as in the immediate aftermath of the financial crisis – just US\$0.6bn in 2009 and US\$1.7bn in 2010. There is a similar falling away of deal value in South America. The region's US\$1.1bn was down 72% year on year. It's the lowest total in the region for many years and compares with US\$7.8bn in 2011 and US\$14.8bn in 2008 at the height of the rush to secure iron ore assets.

The vast majority of deals are between buyers and sellers in the same region (figure 8). They accounted for 85% of all metals deals by number and 90% of total deal value in 2013. It all adds to the picture of continuing caution with companies staying close to home. It contrasts with the earlier years of 2007 and 2008 when pre-credit crunch crosscontinental dealmaking pushed the regional deal value share down to 45%.

Figure 7: M&A activity by target continent

North America	Number	% of all world deals	Value (US\$m)	% of total value
2012	97	19%	4,349	9%
2013	54	15%	6,993	20%
% change	-44%		61%	

Asia Pacific	Number	% of all world deals	Value (US\$m)	% of total value
2012	254	50%	31,116	68%
2013	164	46%	21,083	61%
% change	-35%		-32%	

Central & South America	Number	% of all world deals	Value (US\$m)	% of total value
2012	16	3%	3,959	9%
2013	14	4%	1,109	3%
% change	-13%		-72%	

Western Europe	Number	% of all world deals	Value (US\$m)	% of total value
2012	91	18%	6,068	13%
2013	83	23%	2,522	7%
% change	-9%		-58%	

Eastern & Central Europe	Number	% of all world deals	Value (US\$m)	% of total value
2012	49	10%	321	1%
2013	42	12%	3,118	9%
% change	-14%		871%	

Figure 8: Regional versus cross-continent M&A

2013	Regional		Cross-Continental	
	Total	% of total deals	Total	% of total deals
Number	303	85%	54	15%
Value	US\$31.3bn	90%	US\$3.5bn	10%

2012	Regional		Cross-Continental	
	Total	% of total deals	Total	% of total deals
Number	428	84%	79	16%
Value	US\$41.5bn	91%	US\$4.3bn	9%

Americas

North America has been the focal point for deals in the region following a falling away of activity in South America. Activity remains relatively subdued and even a 61% year on year upturn in value to US\$7bn has not been enough to return total North American metals deal value back to the US\$12.2bn of two years earlier in 2011. As a reference point, total North American transactions before the financial crisis stood at US\$77bn in 2007.

The largest metals sector deal in the region saw complex metal components and products manufacturer Precision Castparts Corporation (PCC) complete the purchase of Titanium Metals Corporation (Timet) for US\$2.6bn. PCC serves the aerospace, power, and general industrial markets and the transaction gave it the opportunity to bring titanium capability in-house into its portfolio. Timet was a longstanding supplier of PCC and the two companies shared many of the same aerospace clients. The deal was the latest in a series of acquisitions by PCC at a time of major ramp-up in aerospace production.

ArcelorMittal's and Nippon Steel & Sumitomo Metal Corporation's 50/50 JV partnership to buy the ThyssenKrupp's Alabama steel plant in a 2014 US\$1.6bn deal gives both companies greater capacity to supply the North American automotive and energy markets while protecting them against the exposure that an outright purchase would entail. The JV follows earlier established JVs between the companies for the auto industry market in North America dating back to 1987 with facilities located in New Carlisle, Indiana.

The deal also brought some reduction of risk for ThyssenKrupp with regard to its other Steel Americas plant, in Brazil, which it had also been seeking to sell. The Alabama purchasers have entered into a long-term slab supply contract up to 2019 for two million tonnes of slab annually from the Brazil mill. This guarantees 40% capacity utilisation although ThyssenKrupp will need to find more customers before the mill can break even.

Sector-wise, there is negligible M&A activity within the aluminium sector in the region with aluminium companies

focusing on organic routes to value-addition in their operations and product offering. Activity was fairly evenly balanced between steel and 'other metals'. Activity in 'other metals' category has been dominated by iron ore purchase in earlier years but is currently more evenly balanced towards manufacturing assets. The second largest 2013 deal, for example, saw Reliance Steel and Aluminium extend its metals services operations with the

completion of its US\$771m purchase of Metals USA. Metals USA provides a wide range of products and services in the heavy carbon steel, flat-rolled steel, non-ferrous metals, and building products markets. The one significant iron ore deal was the completion of a 15% JV interest in ArcelorMittal's iron ore assets in Quebec, Canada for US\$1.1bn by a consortium led by POSCO and China Steel Corporation.

There are signs of deals that reflect the wider economic slowdown in emerging markets and the contrasting economic upturn in the US. For example, Marubeni-Itochu Steel agreed to buy Sooner, the largest US distributor of pipes for the oil and gas industry, for US\$600m in a deal that reflect the market opportunity of infrastructure development for increased US energy output.

Figure 9: M&A activity in North America (by target)

North America		Steel		Aluminium		Other metals	
2013	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn	
Domestic	8	2.6	4	0.06	31	2.9	
Cross border	4	0.03	0	0.0	7	1.3	
All deals	12	2.6	4	0.1	38	4.3	
2012	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn	
Domestic	17	0.8	6	0.1	53	1.6	
Cross border	1	0.06	1	0.2	19	1.5	
All deals	18	0.9	7	0.3	72	3.1	

Figure 10: M&A activity in Central and South America (by target)

Central & South America	Steel		Aluminium		Other metals		
	2013	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn
Domestic	3	0.04	2	0.03	3	0.2	
Cross border	0	0	0	0	6	0.8	
All deals	3	0	2	0	9	1.0	
	2012	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn
Domestic	1	0.04	0	0.0	3	0.08	
Cross border	3	3.6	0	0.0	9	0.2	
All deals	4	3.6	0	0.0	12	0.3	

Asia Pacific

Although Asia Pacific is the 'stand out' metals M&A region in world terms with by far the highest share of deal activity, 2013 activity was down significantly on the previous year. The regional deal value total of US\$21.1bn was US\$10bn lower despite being boosted by the US\$7.5bn merger of two state aluminium companies in the UAE (see earlier 'dealmakers' section). Total deal value in steel was down 63%, from US\$14.2bn in 2012 to US\$5.2bn, and 'other metals' deal value fell away 58% from US\$15.5bn to US\$6.5bn.

With the exception of the UAE deal, there was no merger activity to rival the US\$9.4bn Sumitomo-Nippon Steel merger that had boosted 2012 totals although 2013 did see the follow-up US\$553m merger of the two Japanese companies' trading and logistics entities to form Nippon Steel & Sumikin Bussan Corporation. Also absent were any significant acquisitions of Australian iron ore resources by international buyers. The few small deals involving Australian iron ore assets were predominantly domestic affairs.

The largest deal completed in the region in 2013 was Vedanta Resources' US\$3.9bn merger of its Indian subsidiaries, non-ferrous metals producer Sterlite Industries and iron miner Sesa Goa, into a single entity. Vedanta's Indian aluminium operations were also transferred to the merged company, named Sesa Sterlite. The largest Chinese deal – worth US\$2.1bn – stemmed from the asset restructuring plan of Chongqing Iron & Steel rather

than any consolidation in the Chinese steel sector.

Indeed, much of the region's activity was accounted for by domestic deals in China. Seven out of the 11 Asia Pacific deals worth US\$500m or more in 2013 were Chinese deals. Three of the largest five such deals were asset restructurings within the parent groups. An exception was the second largest Chinese deal which saw Baoshan Iron & Steel, a majority-owned unit of Chinese-state owned Baosteel Group Corporation, acquire a 71.803% interest in Chinese state-owned Baosteel Zhanjiang Iron & Steel, a manufacturer and wholesaler of iron and steel products.

The Baosteel deal comes against a background of long overdue capacity reduction in China. Baosteel Group had already received the go-ahead from the Chinese government to build a ten million tonne per annum steel project at Zhanjiang port in south-eastern

Guangdong province. Construction started in May 2013 and is expected to be complete by September 2016. But significant capacity reduction is a condition of the approval with the local government in Guangdong reported to be committed to closing 16m tonnes of crude steel capacity by the time the new facility is completed and Baosteel saying it will also close some capacity elsewhere.

Outbound international activity by Asia Pacific buyers was largely concentrated on North America with strategic deals for both raw materials and manufacturing assets by Chinese, Japanese and Korean buyers, including Arcelormittal and Nippon Steel & Sumitomo Metal Corporation's US\$1.6bn purchase of ThyssenKrupp's US steel plant. These deals are described in the North America section.

Figure 11: M&A activity in Asia Pacific (by target)

Asia Pacific	Steel		Aluminium		Other metals	
	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn
2013						
Domestic	43	5.2	18	9.2	68	6.4
Cross border	11	0.03	4	0.05	20	0.2
All deals	54	5.3	22	9.3	88	6.5
2012						
Domestic	61	14.0	13	1.3	121	8.1
Cross border	16	0.2	2	0.04	41	7.4
All deals	77	14.2	15	1.4	162	15.5

Europe (including the Russian Federation)

Difficult market conditions continue to form the backdrop for the European metals sector. Although there are some bright spots, the economic outlook remains uncertain and growth risks remain, particularly concerns over possible deflation. Restructuring continues to be the major focus of deal activity with attention revolving around developments at Germany's ThyssenKrupp and Finland's Outokumpu in particular.

ThyssenKrupp's long drawn-out divestment of Steel Americas made regular headlines. The two plants – in Alabama in the US and Rio de Janeiro, Brazil – were put up for sale eighteen months before an eventual sale announcement came towards the end of 2013. ThyssenKrupp was only successful in selling the US plant but arrived at what it described as a “sustainable solution” with the buyers of the Alabama plant also entering into a long-term slab supply contract up to 2019 for two million tonnes of slab annually from the Brazil mill. Dr Heinrich Hiesinger, Chief Executive of ThyssenKrupp, described it as “the best available solution for Steel Americas at present. All other options were not financially viable.”²

But ThyssenKrupp also faced the partial unwinding of its earlier sale of its Innoxum stainless steel business to Outokumpu. A weak market has led the Finnish company to take various moves to strengthen its balance sheet while the European Commission blocked aspects of the earlier ThyssenKrupp deal on competition grounds. In response, ThyssenKrupp has agreed to buy back two former Innoxum assets - VDM, a high-performance alloy unit, and Terni, a loss-making stainless steel mill in Italy. In addition, ThyssenKrupp will fully divest its 29.9% shareholding in Outokumpu. Eventual sales of the VDM and Terni assets are expected but the timescale may be some way ahead and probably not before some further restructuring measures.

The activity around ThyssenKrupp came at the end of 2013 and will not complete until a later time period. Two of the largest completed deals in 2013 involved Russian companies. The first of these saw Roman Abramovich's investment vehicle Crispian Investments acquire a US\$1.5bn 5.399% stake in Norilsk Nickel from United Company Rusal and Kholdingovaya Kompaniya Interros. The deal followed long-running discussions over control of Moscow-based Norilsk. Abramovich's move has added balance to the controlling interests among the company's ownership.

The second large Russian transaction saw state corporation Rostec sell 45.42% of titanium producer VSMPO-Avisma to Business Alliance Company (BAC), a joint venture between the company's management and Gazprombank. BAC also bought 4.6% of VSMPO-Avisma on the market to bring its ownership to 50% plus one share. The largest 2013 completed deal in western Europe was for Swedish iron powders and metal powder technology company Hoganas which was delisted and taken private in a US\$1.2bn deal by Lindengruppen and Foundation Asset Management. Lindengruppen was the biggest shareholder in Hoganas and owned the company before it was listed in 1994.

² ThyssenKrupp press release, 30 November 2013.

Figure 12: M&A activity in western Europe (by target)

Western Europe		Steel		Aluminium		Other metals	
2013	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn	
Domestic	25	0.2	5	0.08	20	1.4	
Cross border	10	0.1	3	0	20	0.8	
All deals	35	0.3	8	0.1	40	2.1	

2012	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn
Domestic	14	0.02	8	0.1	27	1.3
Cross border	17	4.5	5	0.0	20	0.07
All deals	31	4.6	13	0.1	47	1.4

Figure 13: M&A activity in central and eastern Europe (by target)

Central & Eastern Europe						
	Steel		Aluminium		Other metals	
2013	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn
Domestic	9	0.02	0	0	24	2.7
Cross border	4	0	0	0	5	0.4
All deals	13	-0.02	0	0	29	3.1
2012	Number	Value US\$bn	Number	Value US\$bn	Number	Value US\$bn
Domestic	7	0.002	2	0	21	0.3
Cross border	4	0.03	1	0	14	0.005
All deals	11	-0.03	3	0	35	0.3

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