

Forging ahead*

Global Metals mergers and acquisitions analysis
First quarter 2008



Douglas K. Dean
US Metals Leader



Jim Forbes
Global Metals Leader

Perspective: Thoughts on deal activity in the first quarter of 2008

Welcome to the first quarter of 2008 edition of our *Forging ahead* analysis of mergers and acquisition activity in the metals industry. Deal activity remained high with 31 deals announced during the quarter, a slight deceleration of the pace set in 2007, but active nonetheless. Unlike 2007, however, large deals were noticeably absent, resulting in a lower average deal value than during 2007 or 2006.

There continues to be a strong interest in North American targets. Targets in this region accounted for 42 percent and 26 percent of the value and number of deals announced, respectively, primarily led by non-US acquirers. Interest in Asia-Pacific and South American targets remained high, especially those in China and Brazil. While no deals were announced for Russian targets, acquirers located in that region were quite active, accounting for four of the eight deals larger than \$1.0 billion announced during the quarter.

The aluminum sector continued to see deal activity, with \$8.7 billion in announced deals during the quarter, but the steel sector was even more active, with \$10.0 billion in announced deals. Given the consolidated nature of the aluminum sector, it is not surprising that deal activity is proceeding at a faster pace in less consolidated segments.

Strategic investors continue to be the primary deal drivers in the metals sector. In 2006 and 2007 they accounted for approximately 90 percent of the value of announced deals, rising to more than 99 percent in this most recent quarter. This is a market for well-capitalized strategic investors.

The valuation of deals, measured by the ratio of a deal's value divided by the target's earnings before interest, taxes, depreciation, and amortization (EBIDTA), has seen a steady increase since 2005. This quarter's median ratio of 8.7 times EBIDTA remained in line with the valuation of deals seen in 2007. It remains to be seen whether a deteriorating US economic climate and tight credit conditions will impact overall valuations for the remainder of the year.

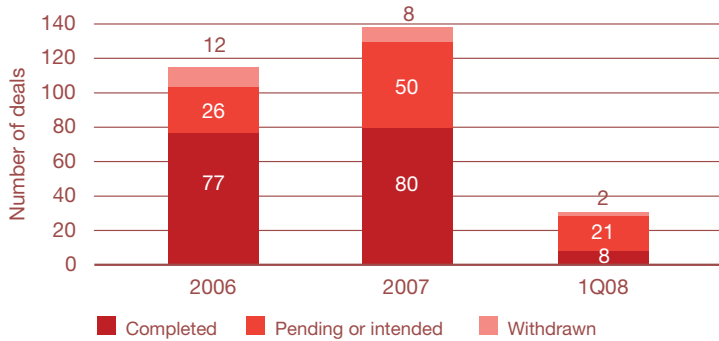
We hope that you enjoy this latest quarterly edition of *Forging ahead*. If you have any questions about our findings, please contact us.

Doug Dean
US Metals Leader

Jim Forbes
Global Metals Leader

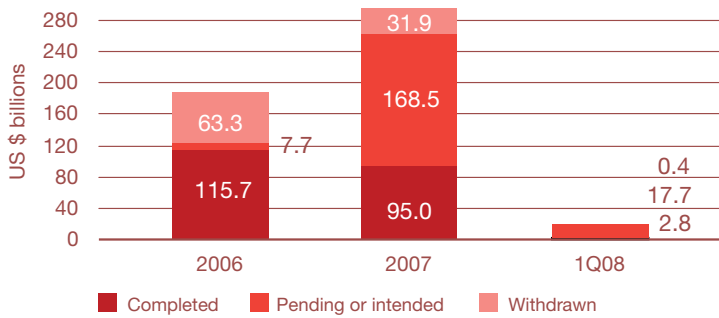
Deal activity by number of deals

Measured by number of deals worth \$50 million or more



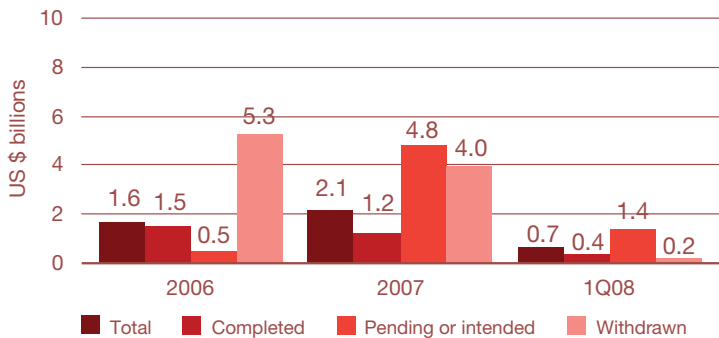
Deal activity by total deal value

Measured by value of deals worth \$50 million or more



Deal activity by average deal value

Measured by value of deals worth \$50 million or more



Industry consolidation and credit conditions affecting deal pace

The overall industry consolidation and tight credit market conditions that occurred toward the end of 2007 continued into 2008 and clearly impacted the pace of deal activity in the metals sector. The 31 deals announced in the first quarter of 2008 worth at least \$50 million are on pace to exceed 2006 levels, but lag 2007 levels.

Fewer mega-deals slow down both total and average deal values

The pace of deal activity as measured by total deal value slowed considerably in the first quarter of 2008 (\$20.9 billion) compared to full-year figures for 2006 (\$186.7 billion) and 2007 (\$295.5 billion). This was primarily driven by the absence of deals worth at least \$10 billion. In 2006 there were seven deals worth at least \$10 billion, led by the Mittal Steel bid for Arcelor SA, and in 2007 there were three deals worth at least \$10 billion, led by the BHP Billiton offer for Rio Tinto and competing bids for Alcan by Alcoa and Rio Tinto. No deals have yet met this threshold in 2008.

This slowdown in the number of deals over \$10 billion also contributed to the decline in average deal value. Average deal value during the first quarter of 2008 was \$0.7 billion as compared to \$1.6 billion in 2006 and \$2.1 billion in 2007. The large average value of withdrawn deals in 2006 was primarily driven by competing bids for Corus Group and Inco. The large average value of withdrawn deals in 2007 was primarily due to the failed bid by Alcoa for rival Alcan, a target eventually won by Rio Tinto.

Large deals in 2006, 2007, and first quarter 2008

The number of deals announced in the first quarter of 2008 for disclosed values of at least \$1 billion (referred to as large deals) are on pace to be lower than 2006 and 2007 levels. There were 19 large deals announced in 2006, the largest being the Mittal Steel bid for Arcelor SA. Interest in large deals was particularly robust during 2007 with 28 large deals announced during the year. By the end of the first quarter of 2008, 17 of the large deals announced during 2007 were completed and only two were withdrawn. The 2007 large deal table was led by an announced deal for Rio Tinto by BHP Billiton (still pending) and competing offers for Alcan (eventually acquired by Rio Tinto).

The pace of large deals has declined in the first quarter of 2008, with only six large deals announced so far this year. Leading the large deals announced during the first quarter of 2008 was the Anglo American acquisition of Brazilian iron ore assets from MMX Mineracao e Metalicos (MMX). The proposed transaction would involve Anglo American purchasing an initial majority stake in a new firm (to be named IronX) which would be divested from MMX and hold MMX's prior share in two large Brazilian iron ore projects.

Status of the BHP Billiton and Rio Tinto mega-deal

In November 2007, BHP Billiton, the largest global mining company, made an initial offer to purchase Rio Tinto, the third-largest global mining company, for three shares of BHP Billiton stock per Rio Tinto share. This offer was rejected and, in accordance with a UK takeover panel deadline, the offer was sweetened to a ratio 3.4 BHP Billiton shares per Rio Tinto share in February 2008. This proposed deal still faces significant hurdles. Rio Tinto management has indicated that the sweetened offer is not acceptable. In addition, the proposed merger faces scrutiny from regulators in the US, Europe and Australia because of the power that a combined BHP/Rio Tinto entity could wield in the iron ore market.

Large deals in 2006

Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ bln	Category
Jan	Arcelor SA	Luxembourg	Mittal Steel Co NV	Netherlands	Completed	32.24	Steel
May	Falconbridge Ltd	Canada	Xstrata PLC	Switzerland	Completed	17.40	Nickel
Aug	Inco Ltd	Canada	Cia Vale do Rio Doce SA	Brazil	Completed	17.15	Nickel
Jun	Inco Ltd	Canada	Phelps Dodge Corp	United States	Withdrawn	16.14	Nickel
Nov	Corus Group PLC	United Kingdom	CSN	Brazil	Withdrawn	14.61	Steel
May	Inco Ltd	Canada	Teck Cominco Ltd	Canada	Withdrawn	14.10	Nickel
Oct	Corus Group PLC	United Kingdom	Tata Steel UK Ltd	United Kingdom	Completed	11.79	Steel
May	OAO SeverStal	Russian Fed	Arcelor SA	Luxembourg	Withdrawn	9.17	Steel
Aug	Arcelor Brasil SA	Brazil	Mittal Steel Co NV	Netherlands	Completed	5.63	Steel
Jan	Dofasco Inc	Canada	ThyssenKrupp AG	Germany	Withdrawn	4.59	Steel
Jun	Maverick Tube Corp	United States	Tenaris SA	Argentina	Completed	3.10	Steel
Jun	Inco Ltd	Canada	Phelps Dodge Corp	United States	Withdrawn	3.00	Nickel
Jan	Caemi Mineracao e Metalurgia	Brazil	Cia Vale do Rio Doce SA	Brazil	Pending	2.66	Iron ore
Nov	Inco Ltd	Canada	Cia Vale do Rio Doce SA	Brazil	Completed	2.32	Nickel
Nov	Oregon Steel Mills Inc	United States	Evraz Group SA	Luxembourg	Completed	2.09	Steel
Sep	NS Group Inc	United States	IPSCO Inc	United States	Completed	1.51	Steel
Dec	Sicartsa	Mexico	Arcelor SA	Luxembourg	Completed	1.44	Steel
Oct	Grupo Imsa SA de CV	Mexico	Tarida SA de CV	Mexico	Completed	1.04	Steel
Mar	Corus Group PLC-Aluminium	Germany	Aleris International Inc	United States	Completed	1.01	Aluminum

Large deals in 2007

Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ bln	Category
Nov	Rio Tinto PLC	United Kingdom	BHP Billiton Ltd	Australia	Pending	144.52	Iron ore
Jul	Alcan Inc	Canada	Rio Tinto Canada Holdings Inc	Canada	Completed	37.63	Aluminum
May	Alcan Inc	Canada	Alcoa Inc	United States	Withdrawn	26.92	Aluminum
May	IPSCO Inc	United States	SSAB	Sweden	Completed	7.57	Steel
Feb	Novelis Inc	United States	AV Aluminum Inc	Canada	Completed	5.79	Aluminum
Jul	Chaparral Steel Co	United States	Gerdau Ameristeel Corp	Canada	Completed	4.14	Steel
Mar	Boehler-Uddeholm AG	Austria	Voestalpine AG	Austria	Pending	3.98	Steel
May	Arcelor Mittal NV	Luxembourg	Arcelor SA	Luxembourg	Completed	3.38	Steel
Oct	Jubilee Mines NL	Australia	Xstrata PLC	Switzerland	Completed	2.77	Other
Dec	Alcoa Inc-Packaging & Consumer	United States	Rank Group Ltd	New Zealand	Completed	2.70	Aluminum
Apr	Sistema Minas-Rio	Brazil	Anglo American PLC	United Kingdom	Completed	2.45	Iron ore
Dec	Sukhaya Balka GOK	Ukraine	Evraz Group SA	Luxembourg	Pending	2.19	Iron ore
Mar	Lone Star Technologies Inc	United States	United States Steel Corp	United States	Completed	2.10	Steel
Aug	Stelco Inc	Canada	United States Steel Corp	United States	Completed	1.94	Steel
Dec	ArcelorMittal Inox Brasil SA	Brazil	Arcelor Mittal NV	Luxembourg	Pending	1.78	Steel
Nov	Quanex Corp	United States	Gerdau SA	Brazil	Pending	1.75	Steel
Apr	Grupo Imsa SA de CV	Mexico	Ternium SA	Argentina	Completed	1.73	Steel
Apr	Algoma Steel Inc	Canada	Essar Global Ltd	India	Completed	1.60	Steel
Jul	Grupo Condesa	Spain	Tubos Reunidos SA	Spain	Pending	1.51	Steel
Dec	China Oriental Group Co Ltd	Hong Kong	Arcelor Mittal NV	Luxembourg	Completed	1.47	Steel
Aug	Bethlehem Steel Corp-Sparrows	United States	E2 Acquisition Corp	United States	Withdrawn	1.35	Steel
Aug	NV Umicore SA-Zinc Smelting	Belgium	Zinifex Ltd-Zinc Smelting	Australia	Completed	1.33	Other
Jan	Baotou Aluminium Co Ltd	China	Chinalco	China	Pending	1.23	Aluminum
Apr	Xstrata PLC-Alum Bus	United States	Apollo Management LP	United States	Completed	1.15	Aluminum
Jan	Harris Steel Group Inc	Canada	Nucor Corp	United States	Completed	1.07	Steel
Dec	Midwest Corp Ltd	Australia	Sinosteel Corp	China	Intended	1.04	Iron ore
Jun	Cumerio NV/SA	Belgium	Norddeutsche Affinerie AG	Germany	Pending	1.04	Other
Aug	Consolidated Minerals Ltd	Australia	Palmary Enterprises Ltd	Ukraine	Completed	1.01	Steel

Large deals in 1Q08

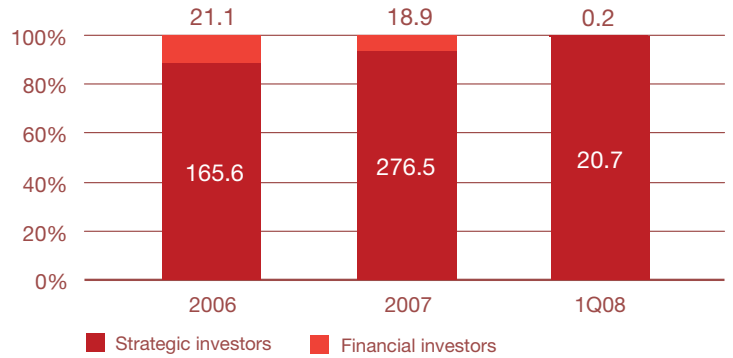
Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ bln	Category
Jan	MMX Mineracao e Metalicos SA-Brazil	Brazil	Anglo American PLC	United Kingdom	Pending	5.50	Iron ore
Mar	IPSCO Inc-NA Tubular Op	United States	Evraz Group SA	Russian Fed	Pending	4.03	Steel
Feb	J Mendes Ltda	Brazil	Usiminas	Brazil	Completed	1.90	Iron ore
Mar	Oriel Resources PLC	United Kingdom	OAO Mechel	Russian Fed	Pending	1.51	Other
Mar	IPSCO Tubulars Inc	United States	TMK	Russian Fed	Pending	1.20	Steel
Jan	Tenaris SA-Hydril Pressure	United States	GE Oil & Gas	Italy	Pending	1.12	Steel

Strategic investors continue to lead the way

Against a backdrop of overall industry consolidation, high metals prices, and increased demand, strategic investors continued to be the primary drivers of deals during the first quarter of 2008. Strategic investors accounted for more than 99 percent of the announced deal value during the first quarter of 2008, while in 2006 and 2007 they accounted for approximately 90 percent of the announced deal value. Given the current conservative lending environment, well-capitalized strategic investors likely will be best positioned to initiate deals during the remainder of 2008.

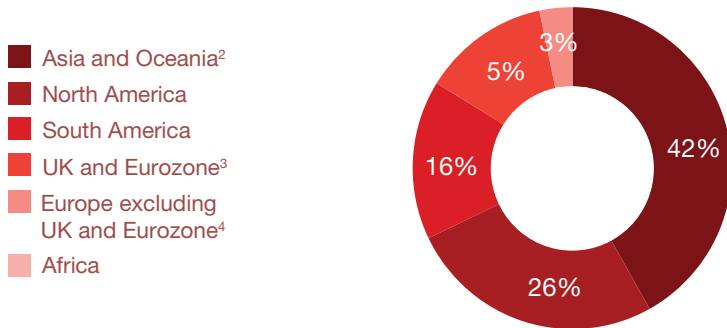
Deals by investor group

Measured by value of deals worth \$50 million or more



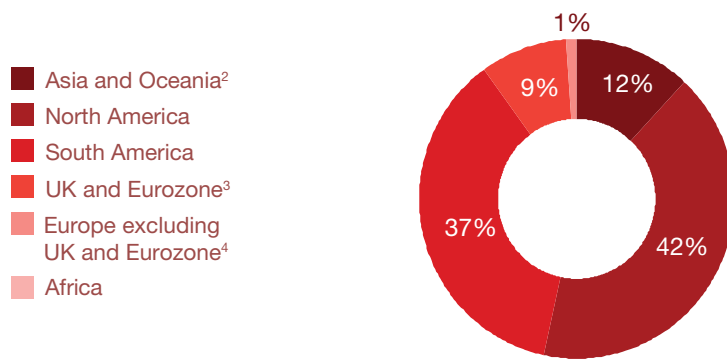
Regional distribution of deals by target region¹

Measured by number of deals worth \$50 million or more



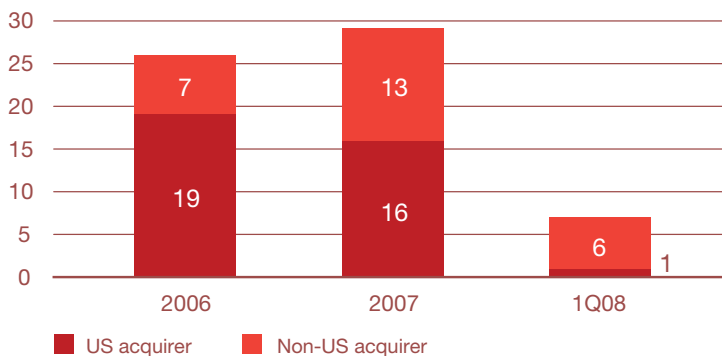
Regional distribution of deals by target region¹

Measured by value of deals worth \$50 million or more



US versus non-US acquirers of US targets

Measured by number of deals worth \$50 million or more



Continued strong interest in North American targets

The last *Forging ahead* quarterly report predicted that the strong interest in North American targets would continue, and this was clearly the case during the first quarter of 2008. While companies in Asia and Oceania were the leading targets on the basis of number of deals, companies in North America were the leading targets on the basis of deal value and accounted for the second-highest number of targets among all regions. In addition, the proportion of deals for US targets that were cross-border acquisitions has increased significantly, accounting for approximately 86 percent of deals in the first quarter of 2008 compared to 45 percent and 27 percent of deals announced during 2007 and 2006, respectively.

The level of interest in North American targets by foreign investors likely will remain strong due to strong metals prices, increased demand, and the weak US dollar, which makes cross-border transactions of US targets less expensive (all else being equal). In particular, emerging market companies have demonstrated an ability to engage in large, cross-border global deals.

¹ This analysis used a parent company's geographic region for transactions involving a subsidiary or business unit.

² Oceania includes Australia, New Zealand, Melanesia, Micronesia, and Polynesia.

³ Eurozone includes Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, The Netherlands, Portugal, Slovenia, and Spain.

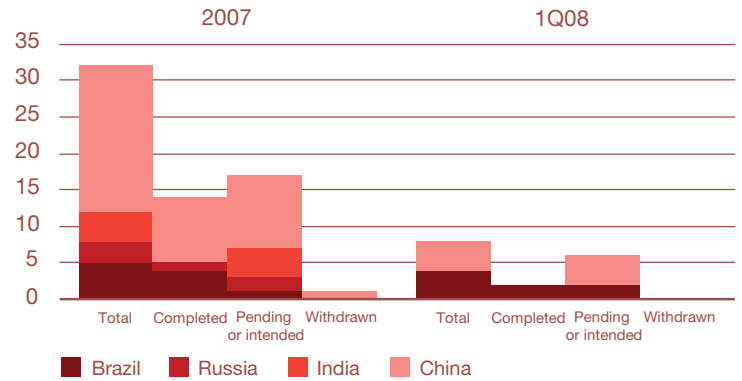
⁴ European countries outside the Eurozone include Albania, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Hungary, Iceland, Lithuania, Macedonia, Monaco, Montenegro, Norway, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Sweden, Switzerland, and Ukraine.

Brazil and China are popular targets; Russian acquirers emerge

The distribution of deals for BRIC targets indicates that deals for targets in Brazil and China contributed significantly to the overall interest in South American and Asia and Oceania targets, respectively, during the first quarter of 2008. No deals were announced for Russia and India targets in the first quarter of 2008 (compared with three and four deals announced for Russia and India targets during 2007, respectively). However, Russian acquirers have demonstrated the willingness to make deals, as they accounted for half of the deals with disclosed values of at least \$1 billion announced during the first quarter of 2008.

Regional distribution of BRIC deals by target nation

Measured by number of deals worth \$50 million or more

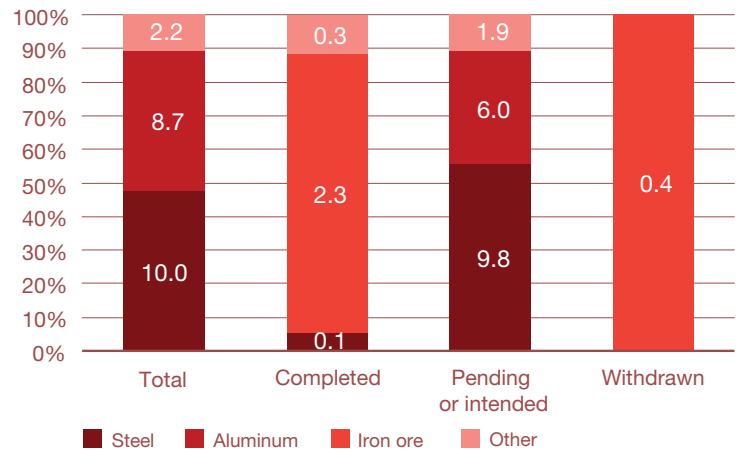


Deals by metal category

Iron ore accounted for the majority of deals among metal categories in 2007, primarily due to the proposed BHP Billiton deal for Rio Tinto, which accounted for almost half of all deal value announced during 2007. In addition, competing bids for Alcan (by Rio Tinto and Alcoa) contributed significantly to deal value announced during 2007 for aluminum targets. In the first quarter of 2008, interest in iron ore and aluminum targets declined in favor of steel targets. Relative deal activity in the steel category likely will remain strong for the remainder of 2008 given the highly consolidated nature of the aluminum industry and the presumed absence of a large deal in the iron ore category similar to the pending BHP Billiton offer for Rio Tinto.

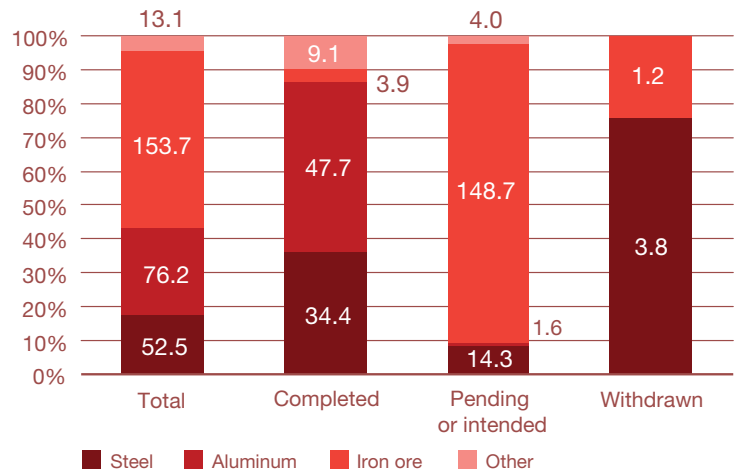
Deal value composition by percent of announced deals (1Q08)

Measured by number of deals worth \$50 million or more



Deal value composition by percent of announced deals (2007)

Measured by number of deals worth \$50 million or more

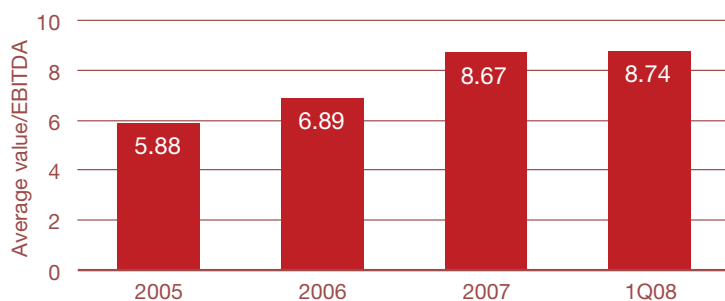


Continued high deal valuations

The median deal value to target EBITDA ratio reached a three-year high in 2007 of 8.67, helped by the relatively favorable deal environment during the first half of the year. The median value/EBITDA ratio of 8.74 for deals announced during the first quarter of 2008 slightly exceeded the ratio for 2007, indicating that acquirers continue to be willing to pay relatively high valuations for desired metals targets.

Deal valuation by median value/EBITDA⁵

Measured for deals worth \$50 million or more



⁵ The sample of available deal value/EBITDA data was limited in each period (31, 56, 55, and 8 deals in 2005, 2006, 2007, and the first quarter of 2008, respectively), thus the median value was selected as a measure of central tendency in order to reduce the influence of outliers.

PricewaterhouseCoopers Merger Integration Services

Capturing sustained economic value in a merger or acquisition is one of the most significant challenges for today's growth-minded companies. Despite the best intentions, research shows that deals often fall short when the time comes to begin translating carefully developed strategy into the right mix of people, process, and technology. Smart buyers can take steps to improve their odds.

We help clients execute rapid integrations to achieve desired synergies and allow for a quick return to business as usual. Doing so adds shareholder value, frees up human and financial capital for reinvestment in core operations and enables our clients to complete a greater number of transactions in a shorter period of time. Our focus is on execution. You and your strategic advisors set the objectives for your deal. We help you take the actions necessary to reach them.

The PwC Seven Fundamental Tenets for successful integration:

- 1. Accelerate the transition.** There is no value in delay. It is critical to focus on obtaining bottom-line results as quickly as possible to maximize shareholder value. Prolonged transitions slow growth, diminish profits, destroy morale and productivity, and lead to missed opportunities and loss of market share. Accelerated transitions result in more rapid return on deal investment, better capitalization on post-deal opportunities, and reduced organizational uncertainty.
- 2. Define the integration strategy.** Integration tactics must be implemented in ways that capture and protect the value of the deal. Rapidly converting acquisition strategy into integration strategy and clearly communicating the strategy is of paramount importance.
- 3. Focus on priority initiatives.** Resource workload limitations demand that integration efforts be prioritized. Shareholder value must drive the allocation of resources for meeting those priorities.

- 4. Prepare for Day One.** Critical "Day One" tasks need to be identified early, before longer-term, more detailed planning commences. This allows for prompt identification of long lead-time items, well before they can turn into closing-day surprises. A detailed plan should then be created, including all actions that will be put in place on Day One.
- 5. Communicate with all stakeholders.** Communicate early and often with all stakeholders, including customers, employees, investors, suppliers/vendors, and the general public. Provide information that addresses their special concerns and is consistent in overall theme and tone. Communication should articulate the reasons behind the deal, reveal timing for key actions, and be candid about both what is known and what is unknown. Feedback mechanisms should be included to ensure two-way dialogue.
- 6. Establish leadership at all levels.** Swift selection of key management posts early in the transition is critical for minimizing uncertainty, assigning accountability, defining functional authority, and establishing role clarity. Companies need to quickly define organization structure and operating model, and clarify key management roles and interrelationships. In addition, during the initial phases of integration, a team-based control structure should be established to link integration strategy and leadership with task-level action, and to coordinate issue, action, and dependency management across the organization.
- 7. Manage the integration as a business process.** Mergers and acquisitions rarely fail due to flawed strategy. Rather, failure most often results from not executing the strategy in a timely fashion. Successful integration must happen quickly and systematically—the period of time between deal announcement and deal close and the first 100 days post-close are critical to realizing quick wins and preparing the combined company to maximize value over the long term.

Mergers and acquisitions case study: Improving monthly closing and reporting process

Client issue A private equity client purchased a US-based aluminum manufacturing company that had \$1 billion in annual revenues. The acquisition gave rise to new financial and stakeholder requirements, including management and external reporting requirements for which the company lacked effective and sustainable operating solutions. The overall objective was to assess gaps in the monthly closing and reporting requirements and identify opportunities to achieve a timelier and higher quality process in alignment with the client reporting requirements.

Approach The PricewaterhouseCoopers project team quickly assessed the gaps in the monthly closing and reporting process and identified opportunities for improvement. PwC then assisted in the implementation of quick-win recommendations identified in the initial assessment. The work was focused around four workstreams:

- Organizational redesign
 - Close and reporting process
 - Chart of accounts standardization
 - Spreadsheet remediation
-

Impact The client experienced the following impacts:

- **Increased accountability over financial activities:** The organizational redesign realigned reporting roles of the organization to allow for increased accountability over financial activities, where previous indirect reporting lines had caused historical challenges in prioritizing conflicting tasks.
 - **More structured governance across the organization:** Standard closing tools developed for the close and reporting process (e.g., close calendar, checklist) provided more structured governance across the organization.
 - **Consolidated and consistent business unit reporting:** A COA Mapping and Data Dictionary, which standardized the chart of accounts, ensured information from BUs to corporate was consolidated and reported on a consistent basis.
 - **Improved support of monthly closing and reporting at key business unit:** A simplified and improved Excel environment more adequately supported the monthly closing and reporting process at a key business unit.
-

Methodology

Forging ahead is an analysis of deals in the global metals industry. Deal information was sourced from Thomson Financial and 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 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 Metal Products; and Metals Service Centers and Offices.

This analysis includes all individual mergers and acquisitions for disclosed or undisclosed values, leveraged buyouts, privatizations, minority stake purchases and acquisitions of remaining interest announced between January 1, 2005, and March 31, 2008, with a deal status of completed, intended, partially completed, pending, pending regulatory approval, unconditional (i.e., initial conditions

set forth by the acquirer have been met, but the deal has not been completed or withdrawn). The term “deals,” when referenced herein, refers to deals with a disclosed value of at least \$50 million unless otherwise noted.

Regional categories used in this report approximate United Nations (UN) Regional Groups, as determined by the UN Statistics Division, with the exception of the North America region (includes Northern America, Latin, and the Caribbean UN groups), the Asia and Oceania region (includes Asia and Oceania UN groups) and Europe (divided into UK and Eurozone and Europe ex-UK and Eurozone regions). Overseas territories were included in the region of the parent country and China, when referenced separately, includes Hong Kong.

Competing deals (not just the ultimate successful deal partner) were included in the data set used throughout the document.

PricewaterhouseCoopers Metals practice

Our Metals practice comprises a global network of industry professionals serving metals clients strategically located in over 30 countries around the world. PricewaterhouseCoopers services global clients involved in ferrous and non-ferrous primary and secondary metals production around the world. We bring experience, international industry best practices, and a wealth of specialized resources to help solve business issues.

Contacts

US Metals:

US Metals Leader

Douglas Dean — +1.412.355.8095, douglas.k.dean@us.pwc.com

US Metals Client Service Advisor

Kristopher Hagedorn — +1.412.355.7504,
kristopher.c.hagedorn@us.pwc.com

US Industrial Products Leader

Dean Simone — +1.267.330.2070, dean.c.simone@us.pwc.com

US Industrial Products Advisory Leader

Karen Vitale — +1.973.236.5437, karen.vitale@us.pwc.com

US Industrial Products Tax Leader

Michael Burak — +1.973.236.4459, michael.burak@us.pwc.com

US Industrial Products Assurance Leader

Saverio Fato — +1.330.796.4777, saverio.fato@us.pwc.com

US Industrial Products Marketing Leader

Neelam Sharma — +1.973.236.4963, neelam.sharma@us.pwc.com

US Industrial Products Sector Analyst

Jim Clayman — +1.636.405.1672, jim.clayman@us.pwc.com

US Industrial Products Analytics

Michael Portnoy — +1.813.348.7805, michael.j.portnoy@us.pwc.com

Global Metals:

Global Metals Leader

Jim Forbes — +1.905.972.4105, jim.forbes@ca.pwc.com

European Industrial Products-Metals Leader

Peter Albrecht — +49.0.201.438.1518, peter.albrecht@de.pwc.com

US Industrial Products Mergers and Acquisitions:

Industrial Products Transactions Services

Brian Vickrey — +1.312.298.2930, brian.vickrey@us.pwc.com

Industrial Products Transaction Services Strategy

Paul McCarthy — +1.248.914.2567, paul.t.mccarthy@us.pwc.com

Industrial Products M&A Tax

Michael Kliegman — +1.646.471.8213, michael.kliegman@us.pwc.com

Industrial Products Merger Integration

David Limberg — +1.216.875.3506, david.limberg@us.pwc.com

Acknowledgements

Special thanks to Michael Portnoy who contributed to the researching and writing of this report, with assistance from Ernest Fierro. Thanks to Kristopher Hagedorn, Joaquin Oliveras, and Peter Russell for their editorial input and review, and thanks to Jim Clayman for his coordination of resources, project management, and editorial review. Thanks also to Judy Traveny for her contribution to the design and publication of this document.

www.pwc.com/metals