

Forging ahead
Second-quarter 2012 global
metals industry mergers
and acquisitions analysis



Sean Hoover

Welcome to the latest edition of *Forging ahead*, PwC's analysis of mergers and acquisitions in the global metals industry. In this report, you'll find an overview of M&A in the sector during the second quarter of 2012, as well as expectations for deal activity in the near future.

PwC analysts are monitoring several trends expected to affect the values and locations of deals in the metals sector:

- Deal volume and value decreased during the second quarter of 2012, in keeping with the downtick in metals prices, which have been dropping since last year.
- With 35 deals valued at \$18.55 billion, Asia and Oceania continued driving local deal value and volume during the first half of 2012. Nearly half of these were in China.
- Western Europe failed to generate any deals valued at \$50 million or more during the second quarter.
- Commodities pricing remains a concern, with prices for base metals expected by many to keep falling throughout this year.

If current levels of M&A activity continue through the end of 2012, the sector could experience a year-over-year decline of nearly 20% in deal value. Unless and until prices and demand improve, the deal environment is likely to remain constrained.

We're pleased to present the second-quarter 2012 edition of *Forging ahead* as a part of our ongoing commitment to provide a better understanding of M&A trends and prospects in the industry.



Jim Forbes

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Perspective: Thoughts on deal activity in the second quarter of 2012

The second quarter saw declines in both deal volume and value. There are a number of possible reasons for this. The decline was in line with the decline in metal prices that we have seen since 2011. Also, the outlook for the global economy has continued to slow, particularly in the advanced economies such as the Eurozone. The emerging markets are seeing slower growth as well. For example, China's gross domestic product rose by 7.6% in the second quarter, the slowest growth since the recession ended in 2009.

Over the past year, liquidity has remained strong. We've seen an increase in cash balances, while debt to equity levels have declined. Normally, this augurs well for future deals because it indicates that potential acquirers are becoming better capitalized over the long term. However, given the current environment, it appears that metals players are waiting to see an improvement in pricing, demand, or both.

For example, Chinese steel mills are cutting production levels as a poor outlook for domestic steel demand reduces the possibility for a recovery in near-term steel prices. In an effort to stimulate economic growth, China lowered its benchmark interest rates by 25 basis points in early June.

On a regional basis, Asia and Oceania continued to drive local deal value and volume in the first half of the year, with 35 deals valued at \$18.55 billion. Almost half of them, 17 deals, were based in China. This region could continue to drive local deal activity in 2012, given that China is both the world's largest steel producer and its largest steel consumer.

This quarter, there was no activity in Western Europe for deals valued at \$50 million or more. European activity overall has been much more subdued, constrained by the economic uncertainty in the United Kingdom and Eurozone, as well as sovereign debt issues in Greece, Spain, and other nations. In May, the Organization for Economic

Cooperation and Development predicted that the economy of the entire Eurozone will contract 0.1% in 2012, with expected growth of only 0.9% in 2013. This follows on the United Kingdom and Spain slipping back into recession in the first quarter of this year.

Given the declines in the deal environment this quarter, the outlook for the near term remains uncertain. A number of issues may cause investors to postpone deals as they wait for conditions to improve.

Commodities pricing is a potential concern. Prices for base metals are generally expected to continue to decline through the end of 2012. The average London Metal Exchange aluminum cash price for June fell almost 6%, and since January the monthly average prices are down more than 12%. For steel, the situation is not much better. The AME Steel Price Index fell 3.3% in May, followed by a further 2.4% decline in June. Overcapacity also remains a problem, as new capacity continues to come online from developing and emerging economies. For example, Bayi Iron and Steel has completed installation of the main equipment at its new steel plant in Baicheng. The Baicheng project will be the largest steel plant built in Xinjiang under China's 12th Five-Year Plan.

Global steel production increased 1.4% in May, despite a constrained demand environment.

If M&A totals continue at this pace for the remainder of 2012, we could see a year-over-year decline of as much as 20% in deal value. This decline is not surprising, given the slowing of the Chinese economy, the double-dip recession in the UK and parts of the Eurozone, and the failure of key end-markets, particularly construction, to help drive increased demand. The deal environment could remain constrained until prices and demand improve.

Commentary

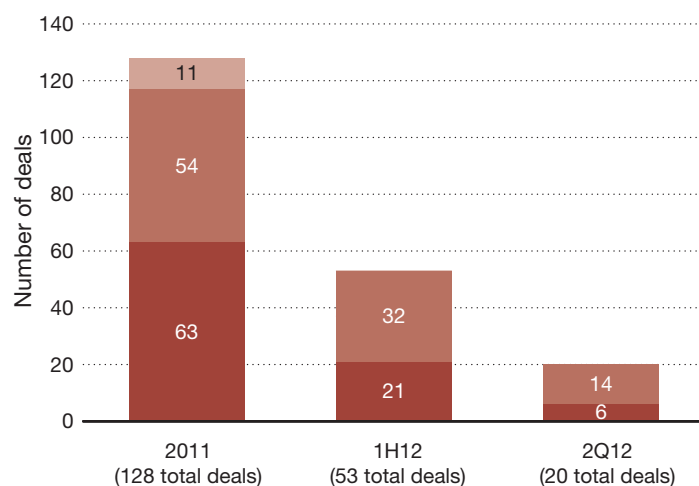
Quarterly metals deal activity

Measured by number and value of deals worth \$50 million or more (3Q09—2Q12)

			2010				2011				2012	
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
Number of deals	24	38	25	24	33	25	28	41	25	34	33	20
Total deal value (\$ billions)	7.5	10.6	7.5	18.0	17.2	13.8	23.9	8.9	9.7	15.7	19.9	8.9
Average deal value (\$ billions)	0.3	0.3	0.3	0.7	0.5	0.6	0.9	0.2	0.4	0.5	0.6	0.4

Deal activity by number of deals

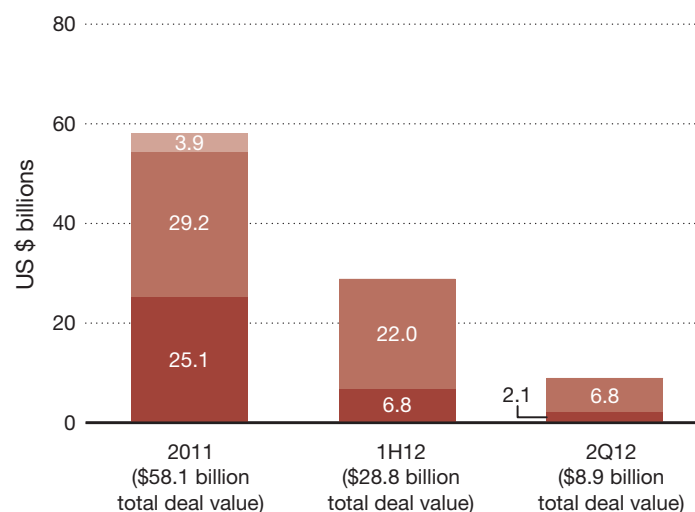
Measured by announced deals worth \$50 million or more



- Completed or partially completed
- Pending, unconditional, or intended
- Withdrawn

Deal activity by total deal value

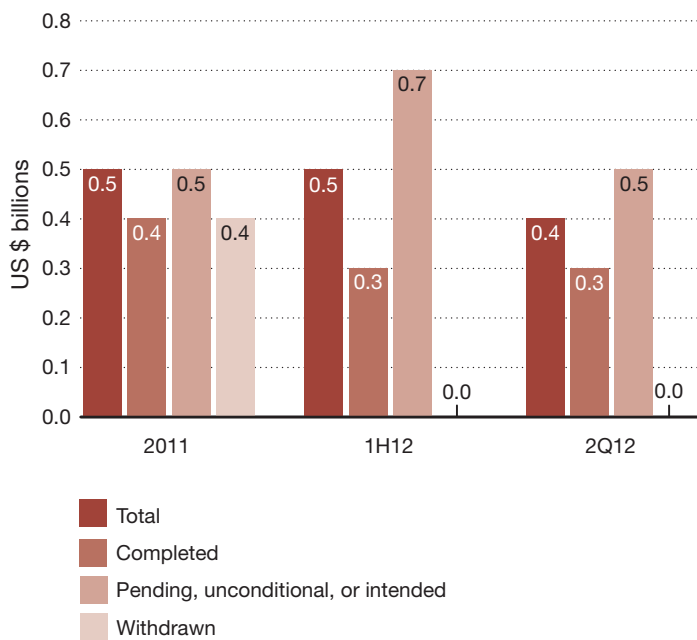
Measured by announced deals worth \$50 million or more



- Completed
- Pending, unconditional, or intended
- Withdrawn

Deal activity by average deal value

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



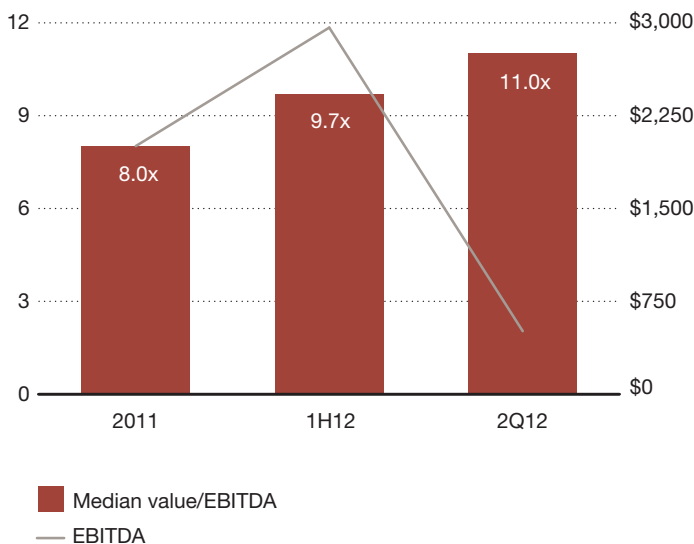
Activity declines in the face of low prices, economic uncertainty

For the second quarter, the volume of deals declined, with deal value declining as well, falling more than 55% compared with the first quarter. This decline in value is partly the result of a lack of mega-deals. The sole mega-deal, valued at \$2.8 billion, comprised only a third of the second quarter's deal value. In contrast, in the first quarter, six mega-deals were responsible for more than 70% of deal value.

Despite solid liquidity positions for many producers, a challenging deal environment likely resulted from declining steel and aluminum prices and an uncertain economic environment, particularly in the Eurozone.

Deal valuation by median value/EBITDA

Measured by value/EBITDA for deals worth \$50 million or more in which target EBITDA was available



EBITDA multiple shows strong growth despite low deal activity

Similar to the decrease in total deal value in the second quarter, the decline in average deal value reflects the announcement of only one mega-deal. Despite the decrease in average deal values, EBITDA multiples, as measured by median transaction value to EBITDA, improved this quarter.

The higher overall EBITDA multiple is driven primarily by acquisitions by non-metal producers. They've been working to acquire upstream assets, allowing them better control over their supplies.

Thus, we note that some buyers are seeing value in acquisitions, despite a deal environment constrained by such factors as political and economic uncertainty. Buyers especially are eyeing targets that will allow them to vertically integrate, and they may be willing to pay a premium to achieve a greater combination of improvements.

In 2012, divestitures and restructurings increase as companies right-size

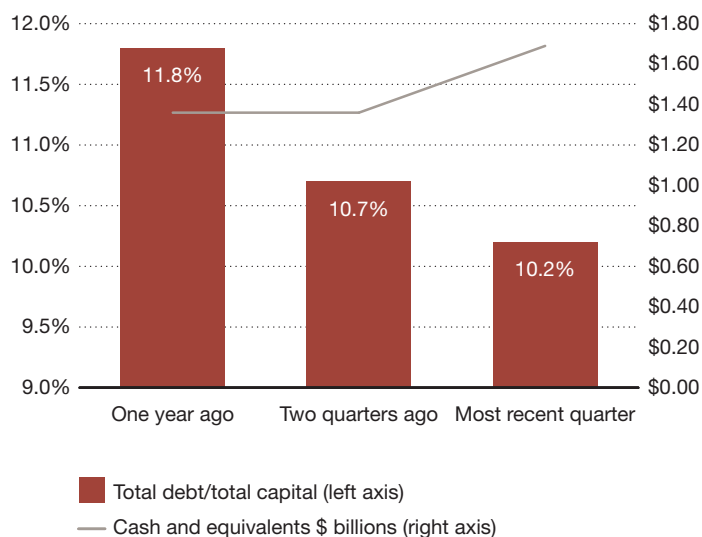
These types of activities are increasingly common, particularly in China, where state-owned businesses may have resources unavailable to their privately owned subsidiaries and less profit motive than listed companies. This quarter's Baoshan Iron and Steel and Sterlite Industries deals are examples of reorganizations. In effect, these companies are utilizing mergers and acquisitions activity in an attempt to revitalize their subsidiaries.

While the percentage of deals involving divestitures declined this quarter, they are still a significant component of the deal environment, accounting for approximately one deal out of three. Companies divest for a number of reasons, such as to eliminate underperforming assets, to raise capital for further expansion or growth, or to eliminate non-core operations in an effort to focus on more profitable businesses. The divestitures this quarter were primarily the sale of assets by metals producers to other metals producers. The selling companies eliminated non-core and underperforming operations, and the buyers were other metals producers hoping to achieve synergies such as economies of scale as a result of their acquisitions.

Stock swaps increased this quarter. These transactions allow a company to acquire the assets of another without reducing its cash balances or increasing its debts. Some equity markets have performed relatively well this year, so their stock becomes better "currency." Swaps also allow companies to maintain their current liquidity positions while reaping the expected synergies of the acquisitions.

Financial leverage

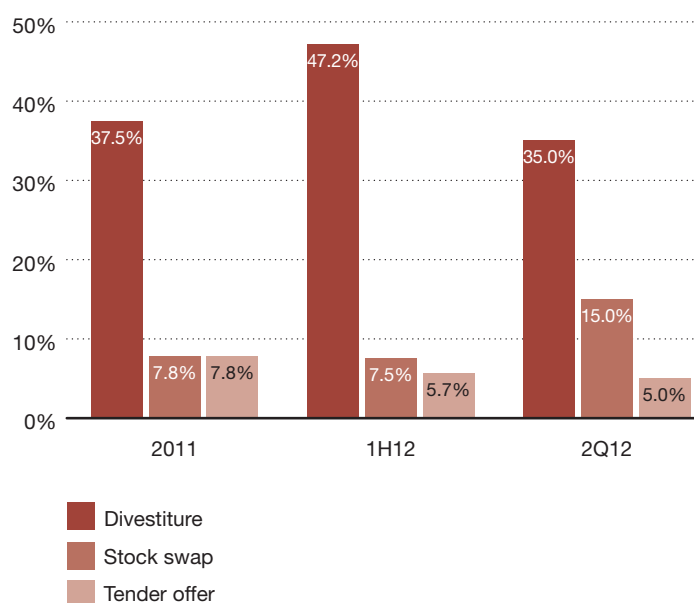
Measured by average of top 50 global public competitors



Source: Company reports

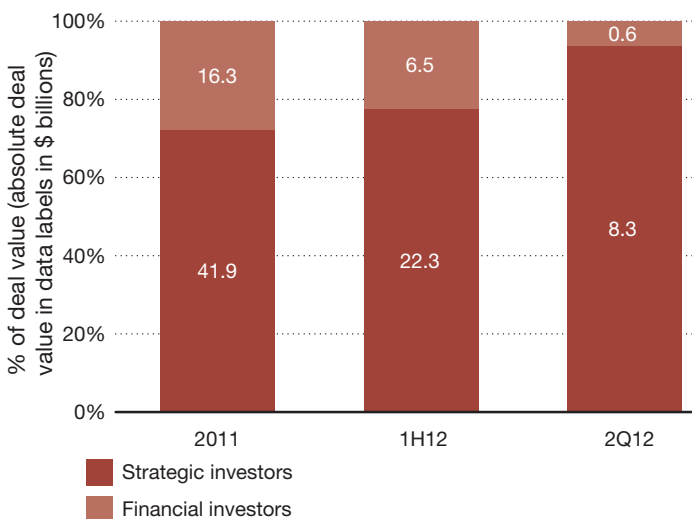
Acquisition characteristics

Measured by percentage of deals worth \$50 million or more (2011, 1H12, 2Q12)



Deals by investor group

Measured by percentage of deals worth \$50 million or more (2011, 1H12, 2Q12)



Finances improve as divestitures continue to drive deal activity

A review of the top 50 publicly traded global competitors reveals that these companies have increased their cash balances over the past two years. At the same time, debt to capital has declined 160 basis points, indicating that potential metals acquirers are becoming financially stronger over the long term.

In the second quarter, financial investments continued to decline as a percentage of all deals. As noted last quarter, strategic investments remain strong, and we are seeing an increase in the volume of these deals as metals companies (and other strategic investors) seek additional synergies and cost savings opportunities. For example, strategic investors generally have longer investment horizons, which support their high involvement compared with financial investors. Also, upstream assets continue to appeal to strategic acquirers. Strategic acquirers may see upstream acquisitions as a way to gain control over input costs and to ensure a stable, adequate supply of raw materials.

Mega-deals in 2011 (value of \$1 billion or more)

Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ bil.	Category
Feb	Sumitomo Metal Industries Ltd	Japan	Nippon Steel Corp	Japan	Pending	9.43	Steel
Jan	Consolidated Thompson Iron Mines Ltd	Canada	Cliffs Natural Resources Inc	United States	Completed	4.36	Iron ore
Nov	Hebei Shougang Qian'an Iron&Steel Co Ltd	China	Beijing Shougang Co Ltd	China	Pending	2.95	Steel
Nov	Usinas Siderurgicas de Minas Gerais SA{Usiminas}	Brazil	Investor Group	Argentina	Completed	2.82	Steel
Jan	Elkem AS	Norway	China National Bluestar(Group) Co Ltd	China	Completed	2.18	Aluminum
Mar	Cia Brasileira de Metalurgia e Mineracao{CBMM}	Brazil	Investor Group	Japan	Pending	1.95	Other
Sep	Cia Brasileira de Metalurgia e Mineracao{CBMM}	Brazil	China Niobium Investment Holding Co	China	Completed	1.95	Other
Nov	Commercial Metals Co	United States	Icahn Enterprises LP	United States	Withdrawn	1.56	Steel
Jul	Sundance Resources Ltd	Australia	Hanlong Mining Investment Pty Ltd	Australia	Pending	1.27	Iron ore
Mar	Severstal North America Warren Wheeling Ops	United States	The Renco Group Inc	United States	Completed	1.19	Steel

Mega-deals in 1H12 (value of \$1 billion or more)							
Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ bil.	Category
Feb	Sterlite Industries(India) Ltd	India	Sesa Goa Ltd	India	Pending	3.91	Other
Jan	ThyssenKrupp AG-Inoxum Stainless Business Area	Germany	Outokumpu Oyj	Finland	Pending	3.53	Steel
Mar	Roy Hill Holdings Pty Ltd	Australia	Investor Group	South Korea	Pending	3.31	Iron ore
May	Chongong Iron & Steel Group	China	Chongqing Iron & Steel Co Ltd	China	Pending	2.80	Steel
Jan	First Quantum Minerals Ltd- Residual Assets & Claims	Dem Rep Congo	Eurasian Natural Resources Corp PLC	United Kingdom	Completed	1.25	Iron ore
Mar	Eramet SA	France	Fonds Strategique d'Investissement SA	France	Completed	1.03	Other
Feb	Baoshan Iron & Steel Co Ltd-Stainless Steel Business	China	Shanghai Baoshan Iron & Steel Stainless Steel Co Ltd	China	Pending	1.02	Steel
Mega-deals in 2Q12 (value of \$1 billion or more)							
Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ bil.	Category
May	Chongqing Iron & Steel Group	China	Chongqing Iron & Steel Co Ltd	China	Pending	2.80	Steel

Mega-deals decline as deal environment cools

Following on the six mega-deals (deals valued at \$1 billion or more) announced in the first quarter, only one mega-deal was announced in the second quarter. In this deal, Chongqing Iron & Steel agreed to acquire from parent Chongqing Iron & Steel (Group) Company Limited a newly built iron and steel production base in the Changshou for \$2.8 billion. Chongqing Iron & Steel will pay for the acquisition by issuing up to 2 billion A-shares to Chongqing Iron & Steel (Group) valued at approximately \$1 billion, paying the group approximately \$1.71 billion in cash, and assuming \$90 million in debt.

European activity sputters amid robust Chinese consolidation

The Asia and Oceania region was responsible for a significant portion of deal value in the first half of 2012, driven by 35 local deals valued at more than \$18.5 billion. It is unsurprising that China-based companies' 17 deals were the primary driver of local activity in Asia and Oceania, given the emphasis that the Chinese government has put on steel company consolidation in its most recent Five-Year Plan.

India has also seen high levels of activity this year, with four local deals and one cross-border deal. India is rapidly becoming a major contributor to the global steel industry. We should also note that Asia's emerging markets are relatively fragmented, which contributes to consolidation within the region.

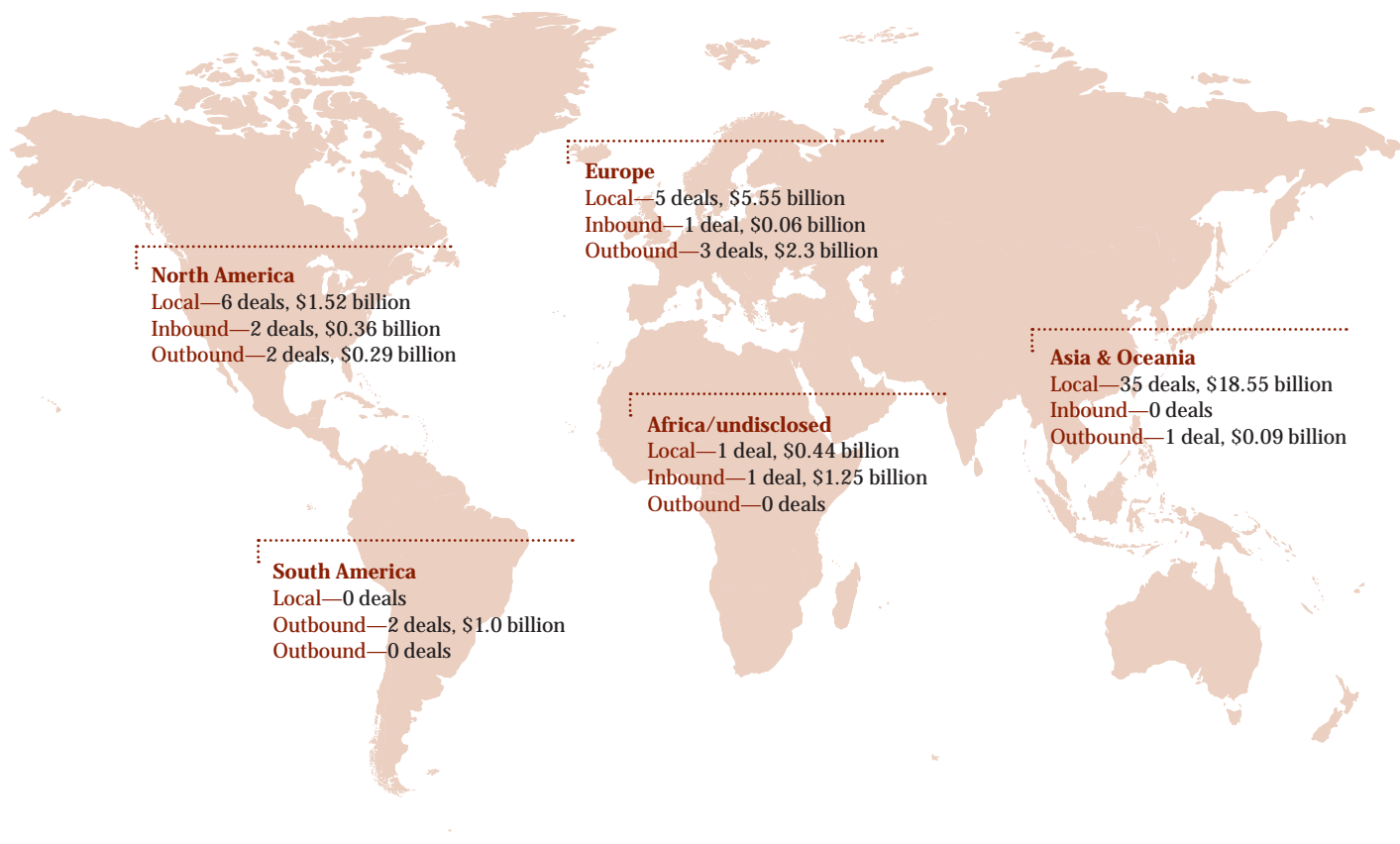
Europe, on the other hand, was the primary driver for outbound deals in the first half, with three deals valued at \$2.3 billion. But we should note that these deals all took

place in the first quarter. This quarter, there was no activity in Western Europe for deals valued at \$50 million or more; the only European activity involved Ob'yedinennaya metallurgicheskaya kompaniya's tender offer for the remaining 12.9% of shares in Vyksunskiy metallurgicheskiy zavod for \$282 million. European activity overall has been more subdued, potentially constrained by the economic uncertainty in the Eurozone and sovereign debt issues in Greece, Spain, and other nations.

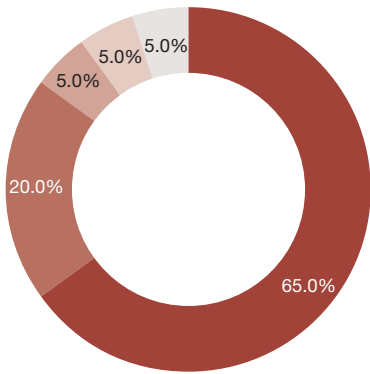
In North America, there were six local deals in the first half of the year, three of which, valued at \$1 billion, took place in the second quarter. It is likely that North American activity has been constrained recently for a number of reasons, including the relative maturity of the industry in the region and the economic uncertainty (e.g., low construction starts and high unemployment). However, the dollar has been rising in value recently, particularly against the euro. If this improvement continues, US acquirers may be able to pursue relatively cheap acquisitions in the near future.

Global metals M&A activity

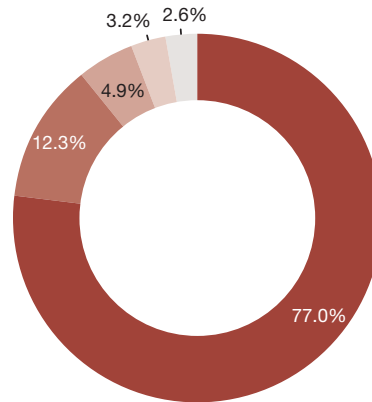
Measured by number and value of deals worth \$50 million or more (1H12)



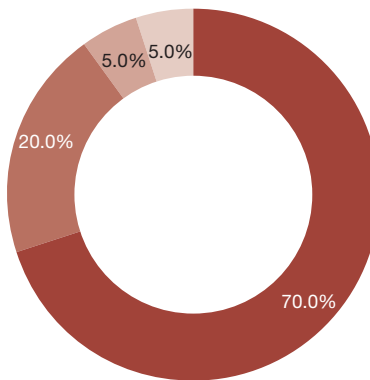
Regional distribution of deals by target region
 Measured by number of deals worth \$50 million or more (2Q12)



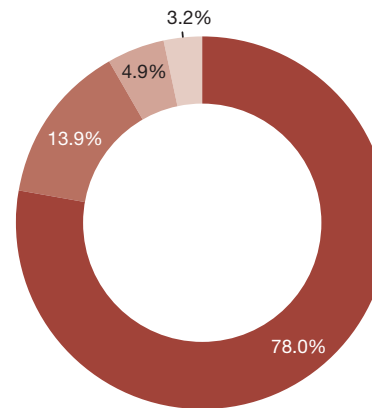
Regional distribution of deals by target region*
 Measured by value of deals worth \$50 million or more (2Q12)



Regional distribution of deals by acquirer region
 Measured by number of deals worth \$50 million or more (2Q12)



Regional distribution of deals by acquirer region
 Measured by value of deals worth \$50 million or more (2Q12)



■ Asia & Oceania
 ■ North America
 ■ Africa/undisclosed
 ■ Europe ex-UK & Eurozone
 ■ South America
 ■ UK & Eurozone

Acquirers from emerging economies sign off on larger share of activity

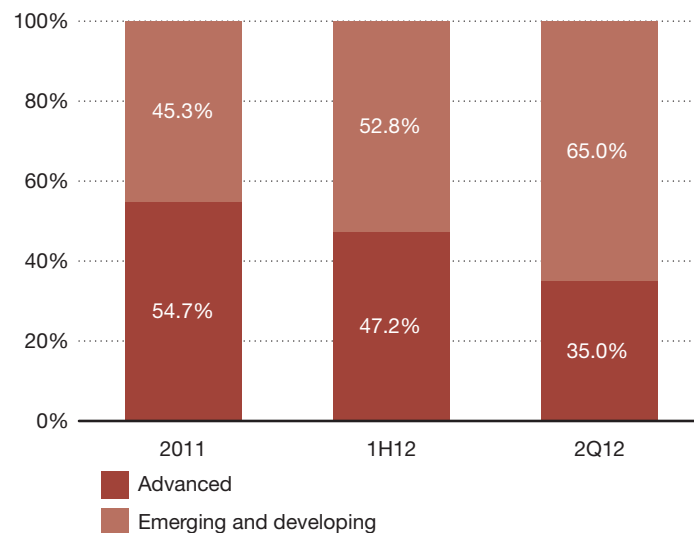
In the second quarter, acquirers from emerging and developing economies continued to account for the majority of deals valued at \$50 million or more, with 65% of all such activity. Since 2011, this proportion has continued to grow, as emerging and developing nations see stronger economic growth and increases in infrastructure projects, which require large amounts of aluminum, iron, and steel.

Many of these emerging market deals are local market (nine of 13), so companies may be seeing better returns in their own markets and also trying to consolidate them.

The largest contributor to deal activity from the advanced economies was the United States with three, while China was a driver for emerging nations, with nine deals.

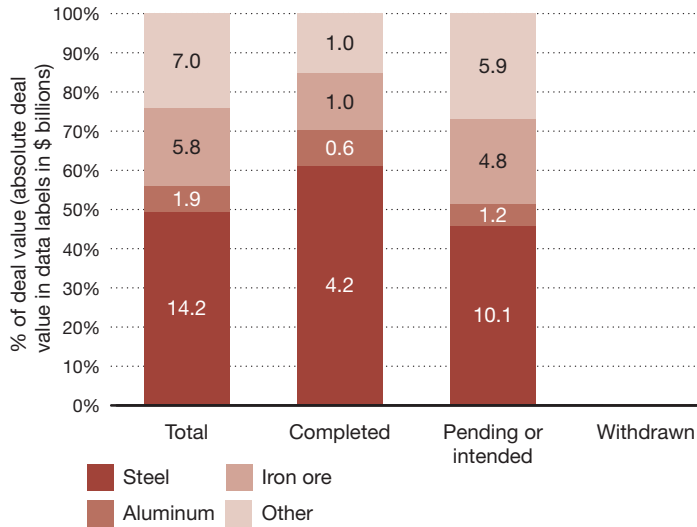
Acquirers from advanced versus emerging and developing economies

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



Deals by target metal category

Measured by value of deals worth \$50 million or more (1H12)



Steel continues to drive deal value

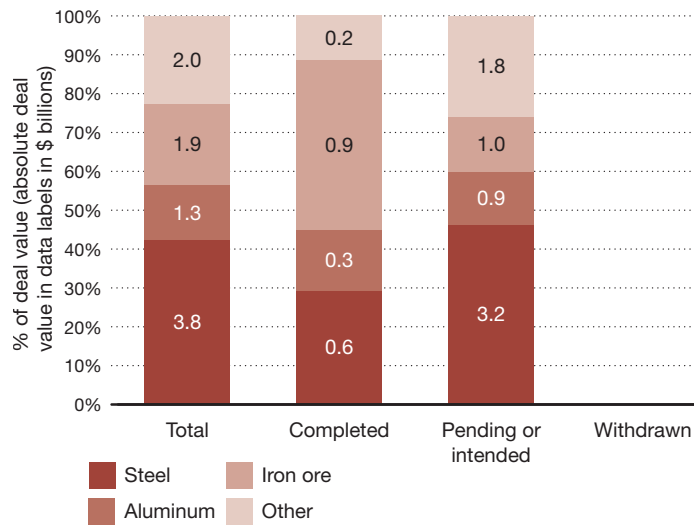
PwC segments the metals sector into four categories by comparing standard industrial classification (SIC) codes to our internal classification system. Based on this process, we group deals (measured by number) into four product segments:

- Steel
- Aluminum
- Iron ore
- Other

During the second quarter of 2012, targets classified as steel manufacturers continued to drive activity in the metals deal environment. Reasons for this may include the relative size of the steel industry compared with the other segments; the increasing consolidation efforts of steelmakers, particularly in China and India; and the need for steelmakers to derive economies of scale and other synergies so they can remain competitive.

Deals by target metal category*

Measured by value of deals worth \$50 million or more (2Q12)



*Sum of deals completed, pending, or intended may not equal the total due because of rounding.

PwC's metals experience

Deep metals experience

PwC's Metals practice serves ferrous and nonferrous primary and secondary metals producers through a network of more than 1,000 professionals strategically located around the world. Central to the successful delivery of our services is an in-depth understanding of today's industry issues, in addition to our wealth of specialized resources that help in solving complex business challenges.

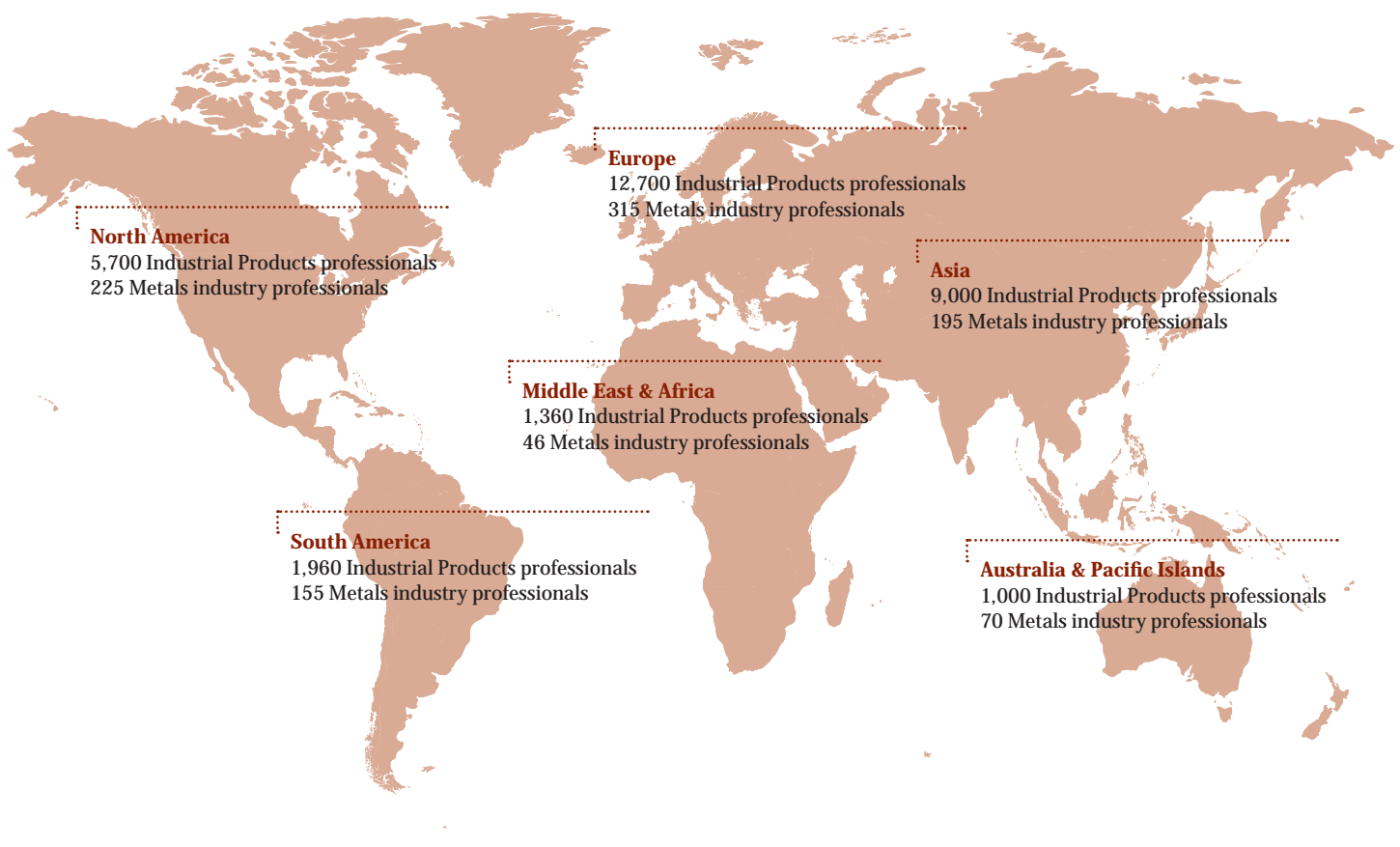
Our highly skilled team encourages dialogue about trends and issues through participation in industry conferences and associations, such as the American Iron and Steel Institute, as well as through industry-focused publications and Web forums. To address your industry needs wherever they arise, our professionals are concentrated in areas where the metals industry operates today and in the emerging markets where it will likely operate in the future.

Quality deal professionals

PwC's Transaction Services practice, with more than 6,500 dedicated deal professionals worldwide, has industry and functional experience to advise our clients on various factors that could affect a transaction, including market, financial accounting, tax, human resources, operating, IT, and supply chain considerations. Teamed with our Metals practice, our transaction professionals can bring a unique perspective to your deal, addressing it from a technical aspect as well as from an industry point of view.

Global connection

In addition to the more than 1,000 professionals who serve the metals industry, our team is part of an expansive Industrial Products group that consists of more than 32,000 professionals, including approximately 17,000 providing assurance services, 8,300 providing tax services, and 7,000 providing advisory services. This expands our global footprint and enables us to concentrate efforts in bringing clients a greater depth of talent, resources, and know-how in the most effective and timely way.



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PwC's Transaction Services practice offers a full range of tax, financial, business assurance, and advisory capabilities covering acquisitions, disposals, private equity, strategic M&A advice, advice on listed company transactions, financing, and public-private partnerships.

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Methodology

Forging ahead is an analysis of merger and acquisition activity in the global metals industry. Deal information was sourced from Thomson Reuters 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 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 centers and offices. Balance sheet data was sourced from public company reports.

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, 2011, and June 30, 2012, with a status of completed, intended, partially completed, pending, pending regulatory approval, unconditional (i.e. initial conditions set forth by the acquirer have been met but deal has not been completed), or withdrawn. The term *deal*, when referenced herein, refers to transactions 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 North America, Latin America, and the Caribbean UN groups), the Asia and Oceania region (includes Asia and Oceania UN groups), and Europe (divided into United Kingdom and Eurozone and Europe ex-UK and Eurozone regions). International Monetary Fund classifications were used to label economies as advanced or developing and emerging. Overseas territories were included in the region of the parent country. 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

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