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*What's New in  
Mining Deals?  
School of Mines  
Mining M&A  
2011 + 2012 Q1 Update*

*Presenters:*

*John Nyholt and Stephen Mallowney*

*PwC Toronto - Deals*



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## ***What's New in Mining Deals?***

### ***OVERVIEW***

- Mining Deals Review – 2011 & 2012 Q1 update
- Mining Deals Outlook – 2012 and beyond
- Case Studies

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## ***Introduction***

- Result of an in-depth analysis of over **2,000 M&A transactions** in the global mining sector *announced* in 2011, as reported (in US\$) by S&P Capital IQ – and then updated for Q1 2012.
- PwC dealmakers from Canada, Australia, China, South Africa, Europe and India contributed insights to our report. Collectively, these professionals have been involved in hundreds of mining deals globally.
- We would also like to acknowledge input from external market leaders including:
  - *Sandy Chim*, Chief Executive Officer, Century Iron Mines Corporation
  - *Jeff Donahue*, Senior Principal, Private Investments, Canada Pension Plan Investment Board
  - *Magnus Ericsson*, Chairman, Raw Materials Group
  - *Dr. David Humphreys*, former chief economist for Rio Tinto and Norilsk Nickel
  - *Divya Reddy*, Natural Resources Analyst, Eurasia Group
  - *Metals Economics Group*

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# *I. 2011 and Q1 2012 Retrospective*

## *Shelter from the storm*

# Resource price erosion in 2011...

### HSBC Base Metals Index (2011)

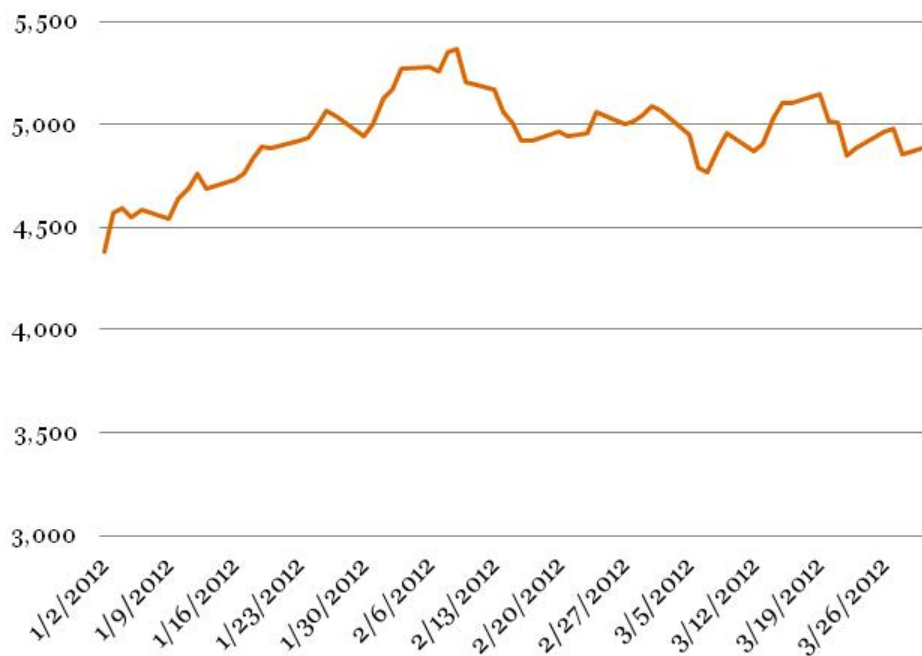


### HSBC Global Mining Index (2011)



***...has moderated in early 2012.***

**HSBC Base Metals Index (Q1 2012)**



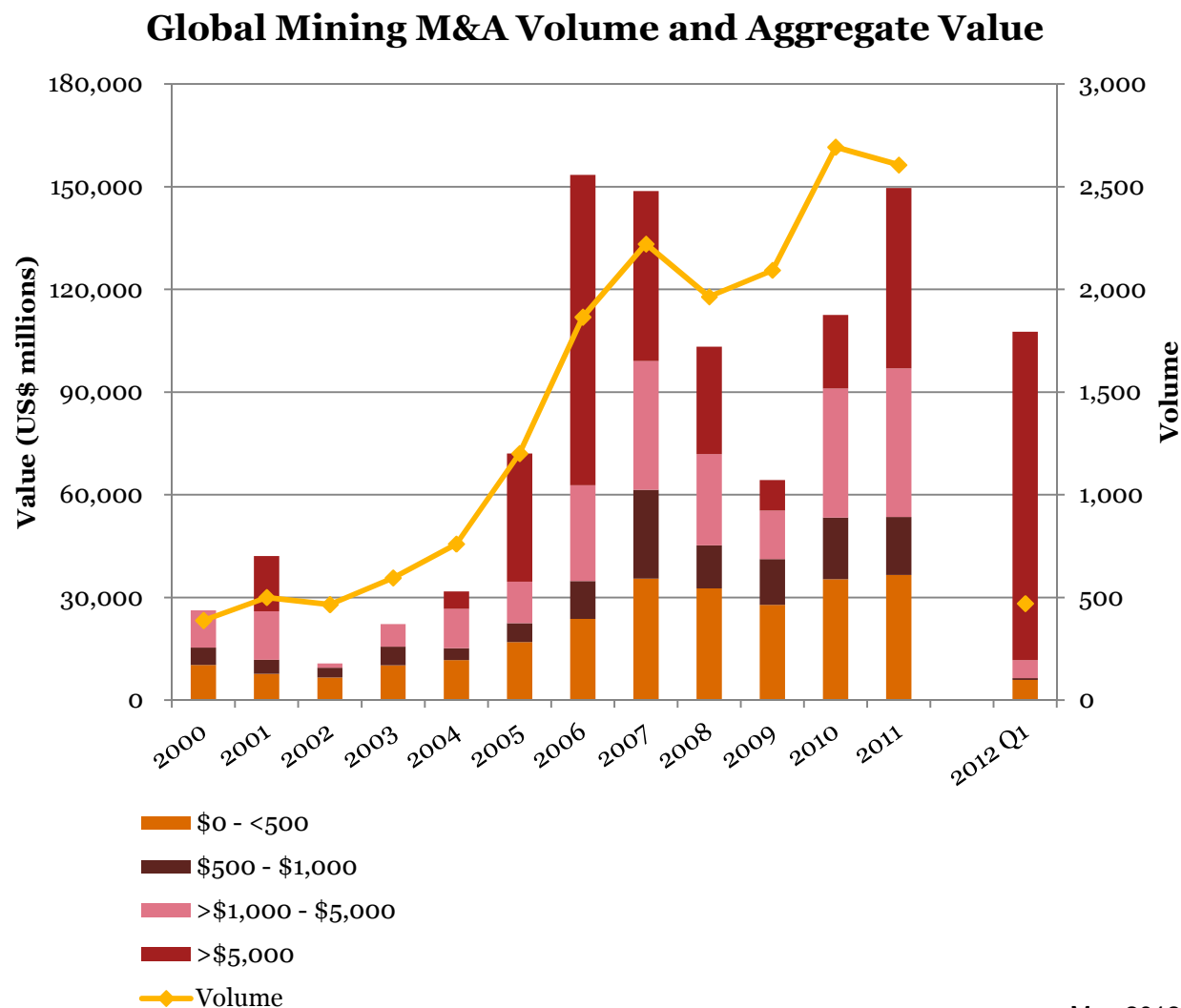
**HSBC Global Mining Index (Q1 2012)**



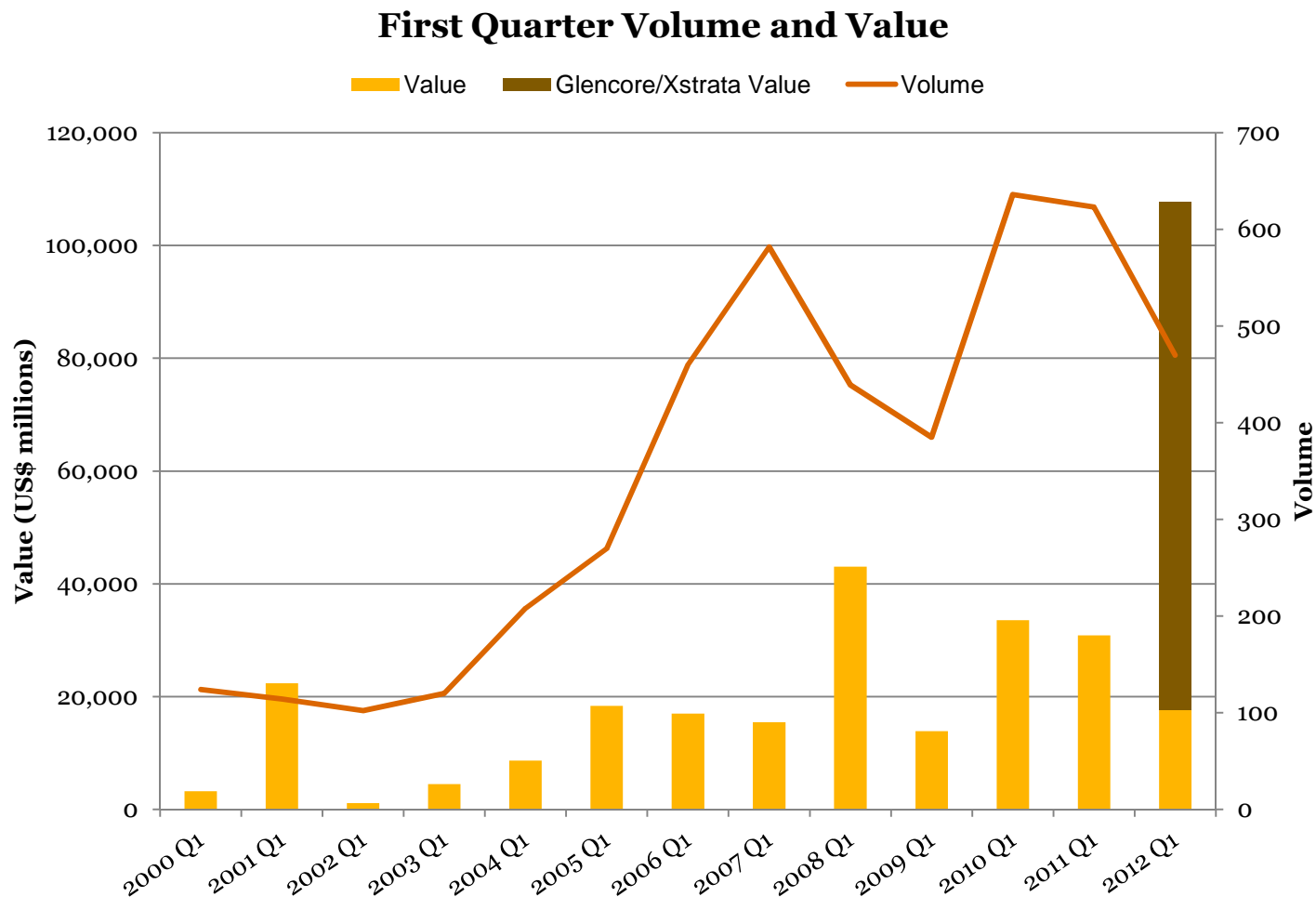
## *This has been accompanied by near-record M&A...*

*The high and low ends of the mining M&A market were active.*

*“The middle” was quiet.*



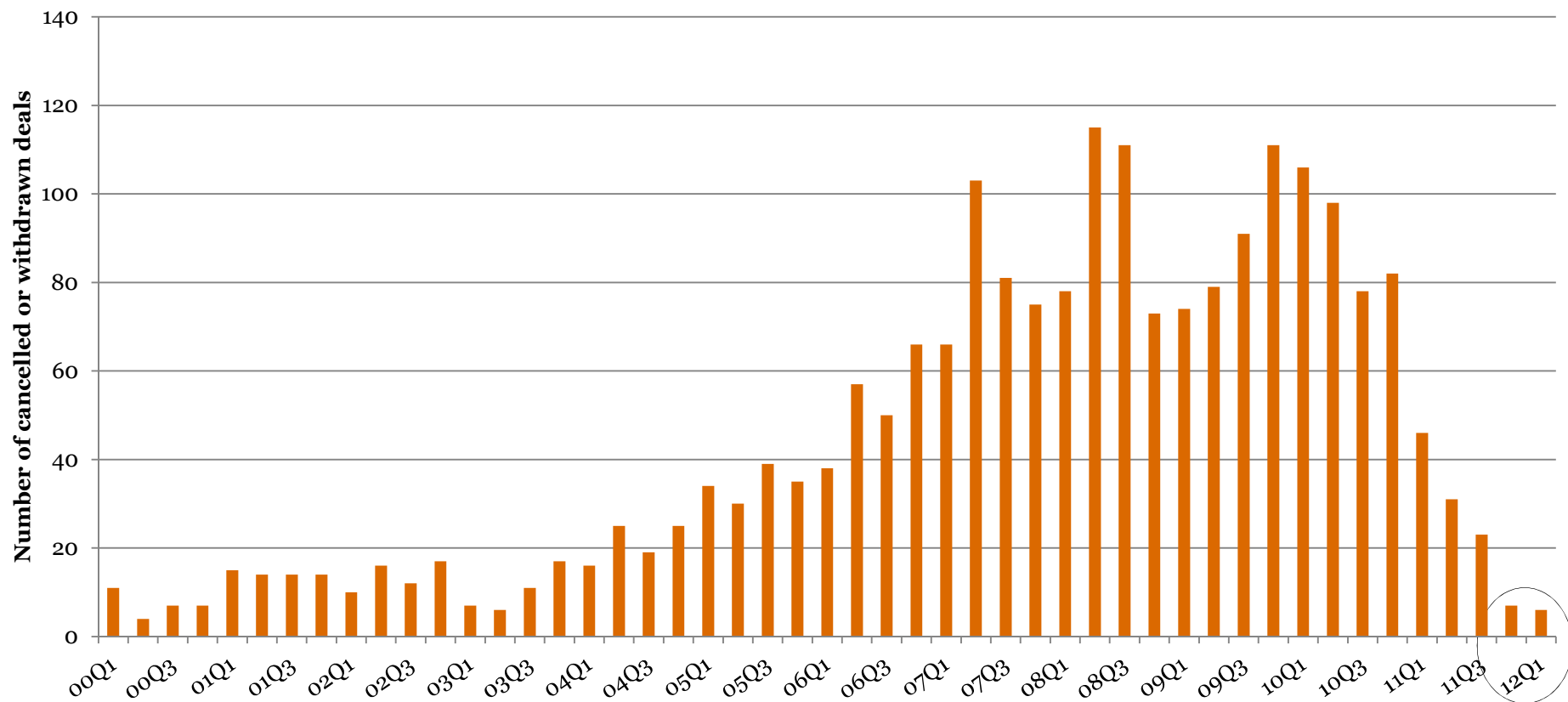
*...with Q1 2012 standing above the rest - but...*





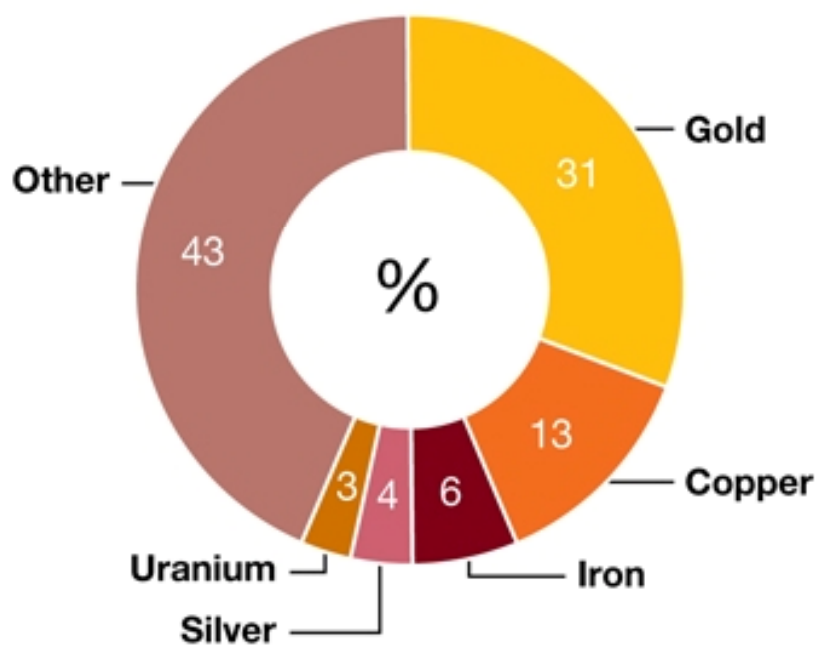
*..and a high degree of optimism.*

**Cancelled mining M&A transaction volumes (quarterly)**

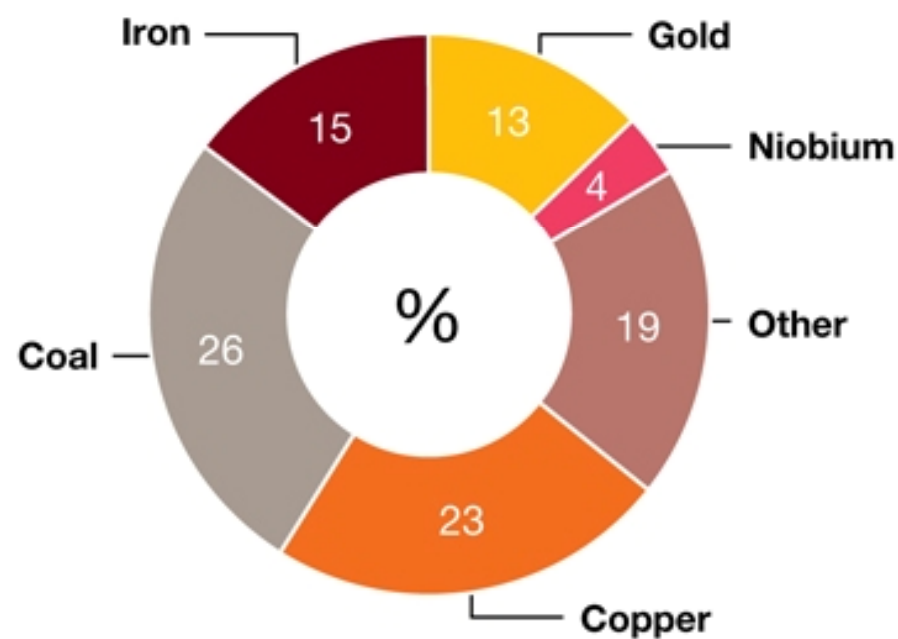


## *Five resources dominated activity in 2011...*

measured by volume



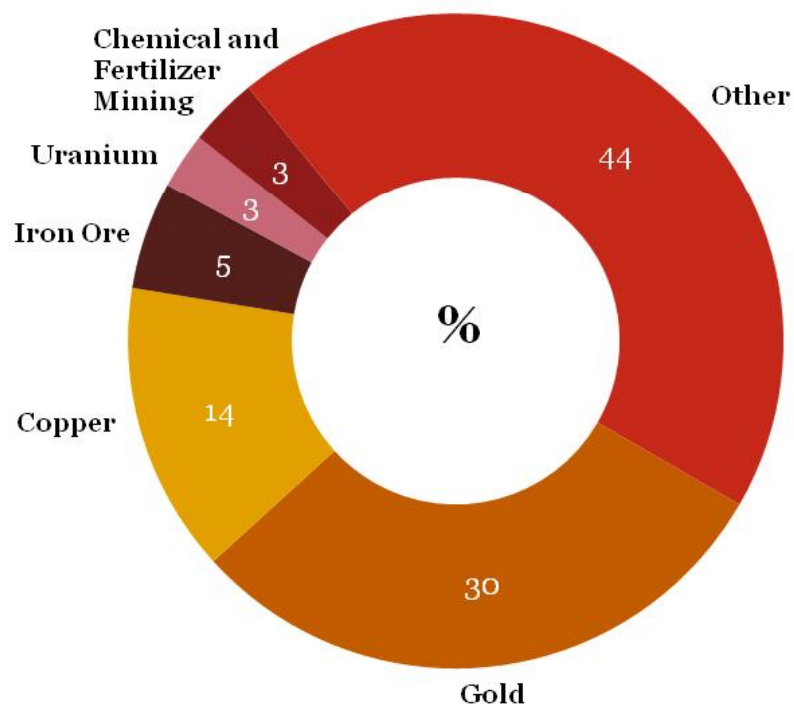
measured by value



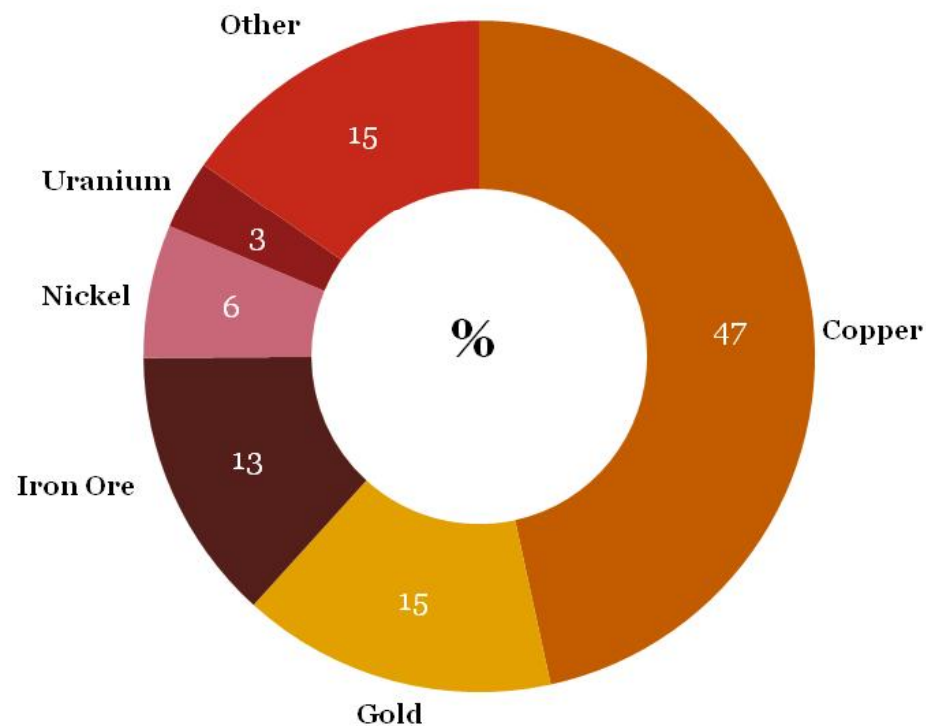
Source: S&P Capital IQ, PwC Analysis

## *Copper and gold continued to dominate activity...*

measured by volume



measured by value



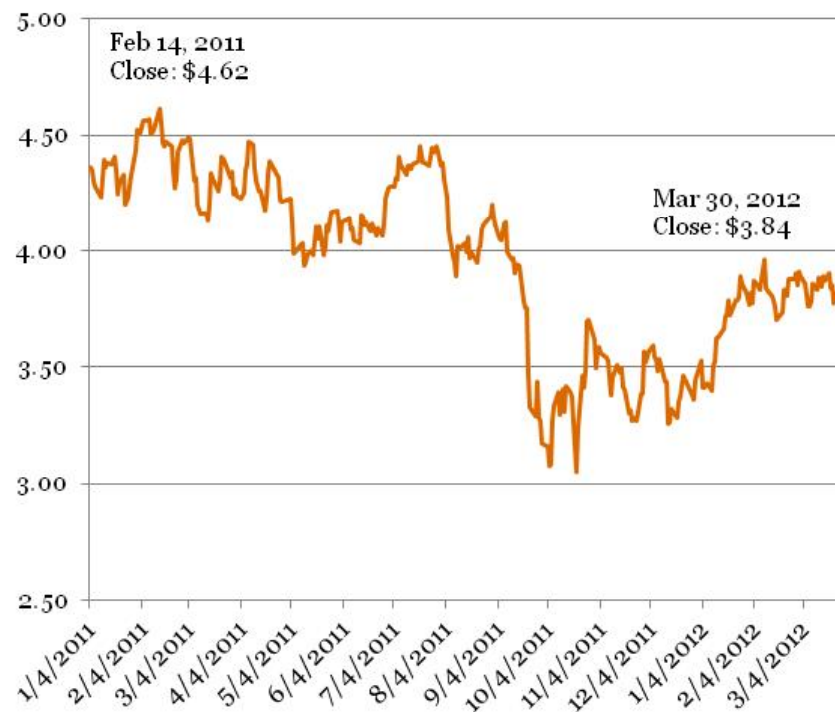
Note: Values exclude the announced Glencore / Xstrata merger

*...and while spot prices declined from recent highs...*

**Gold spot price (US\$/ounce)**



**Copper spot price(US\$/lb)**



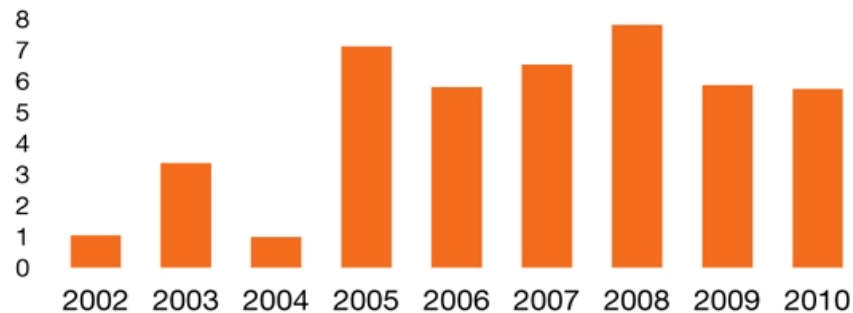
***...“Dr. Copper” continued to be a standout...***

### **Trends in copper transactions (2007 – Q1 2012)**

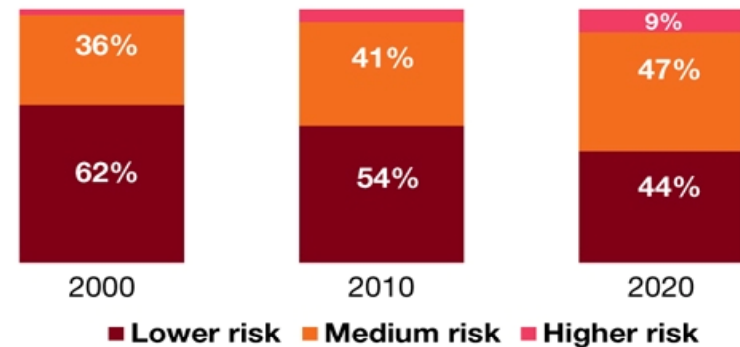
<b>% of total value by transaction ranges</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Q1 2012</b>
Greater than \$1 billion	64%	81%	32%	48%	70%	88%
\$500 - \$999.9 million	20%	4%	20%	15%	10%	0%
\$100 - \$499.9 million	10%	11%	35%	29%	15%	7%
Less than \$100 million	6%	4%	13%	7%	5%	5%

# ...as miners focused on the long term fundamentals...

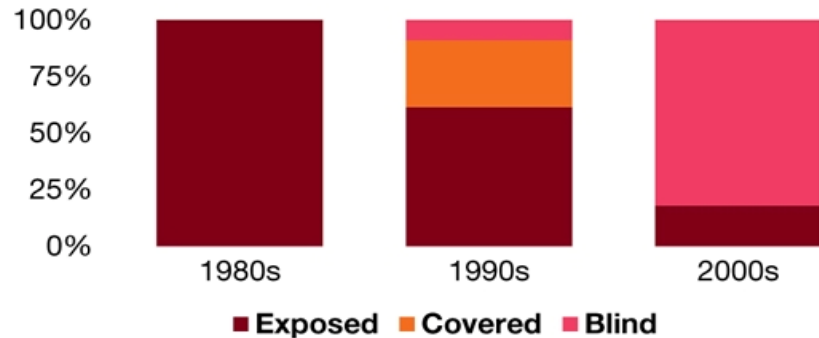
**Disruption rates will continue**  
(% of planned production)



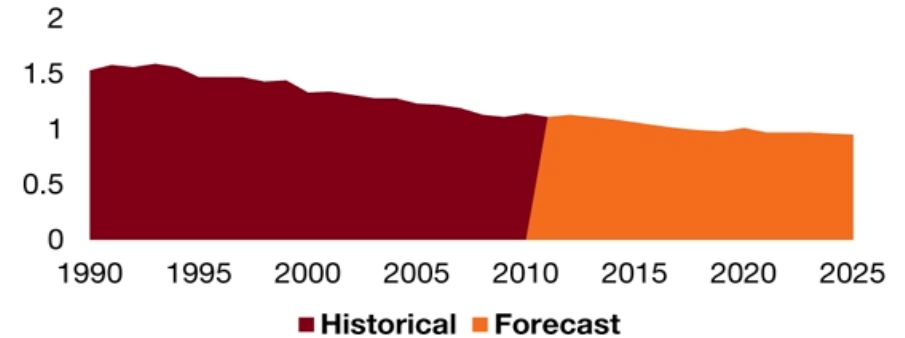
**Sovereign risk**  
Copper supply location (%)



**Increasing depths**  
Indicative depth of discoveries



**Declining grades**  
Average head grade treated (% Copper)



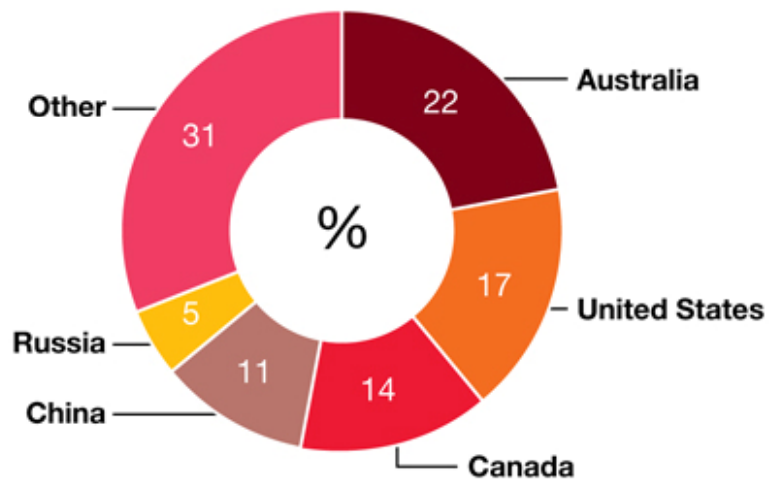
Sources: Brook Hunt – A Wood Mackenzie company

*...and extended geographic reach into frontier regions.*



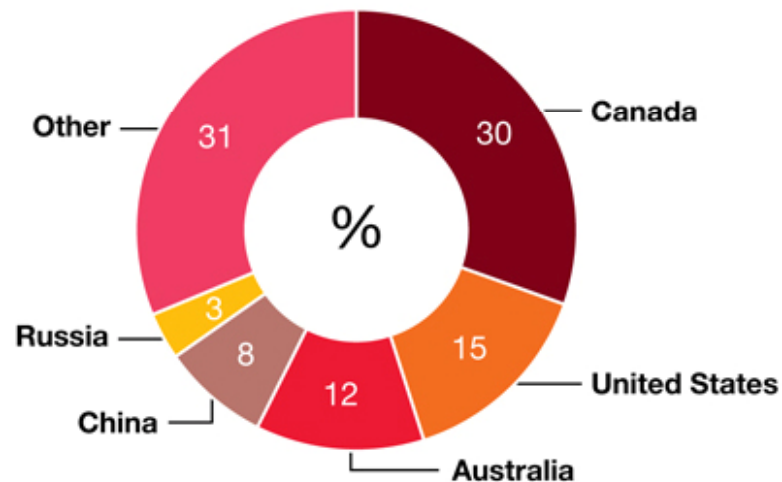
## *While 2011 saw the traditional “mining geographies” dominate...*

Global M&A activity market share of mining deal buy-side values by geography (2011)



Source: S&P Capital IQ, PwC Analysis

Global M&A activity market share of mining deal buy-side volumes by geography (2011)

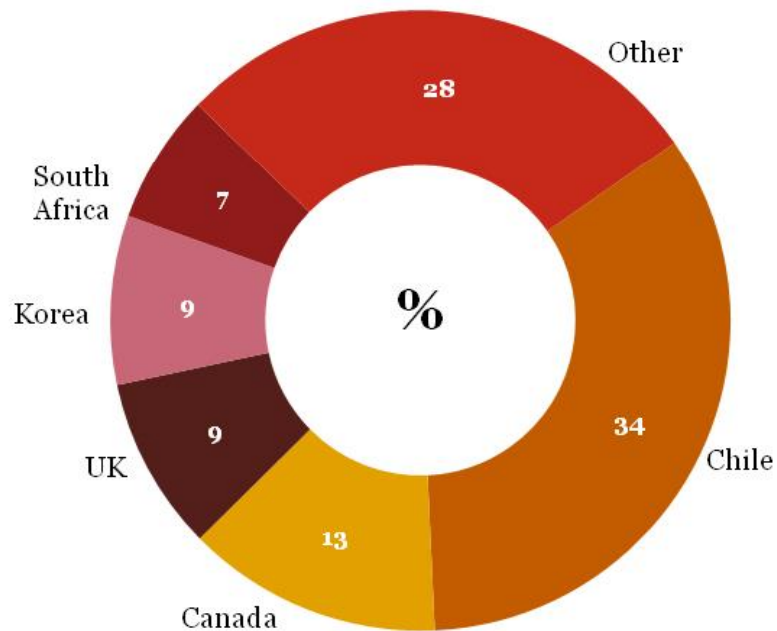


Source: S&P Capital IQ, PwC Analysis

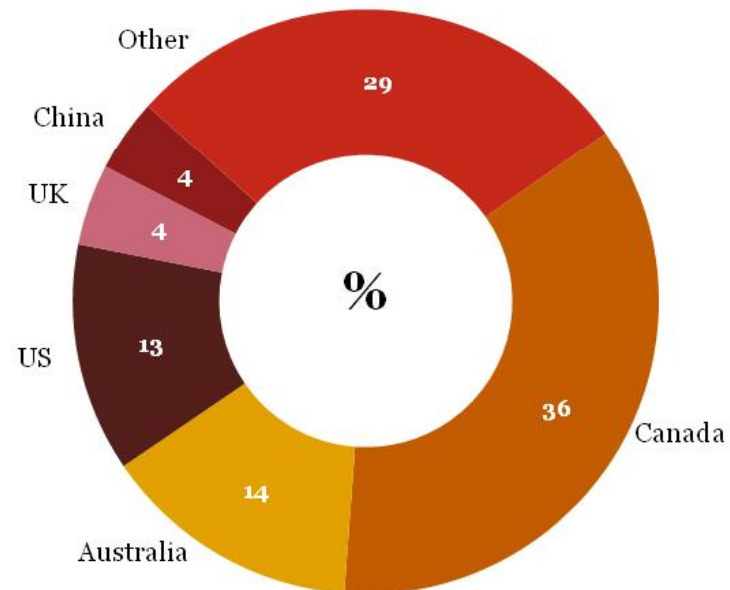


***...buy-side values in 2012 have provided us with some surprises.***

**Global M&A activity market share of mining deal buy-side values by geography (Q1 2012)**



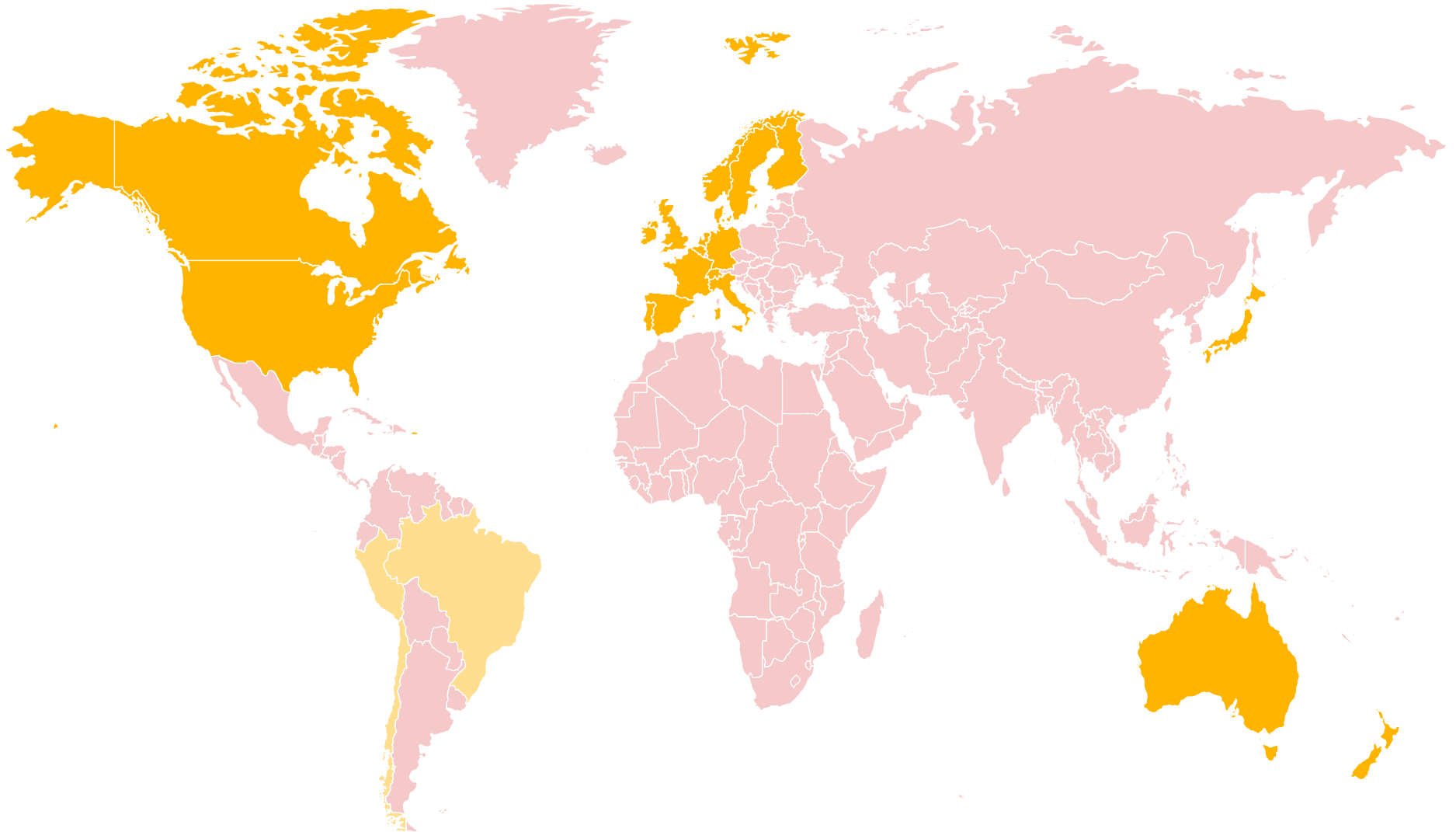
**Global M&A activity market share of mining deal buy-side volumes by geography (Q1 2012)**



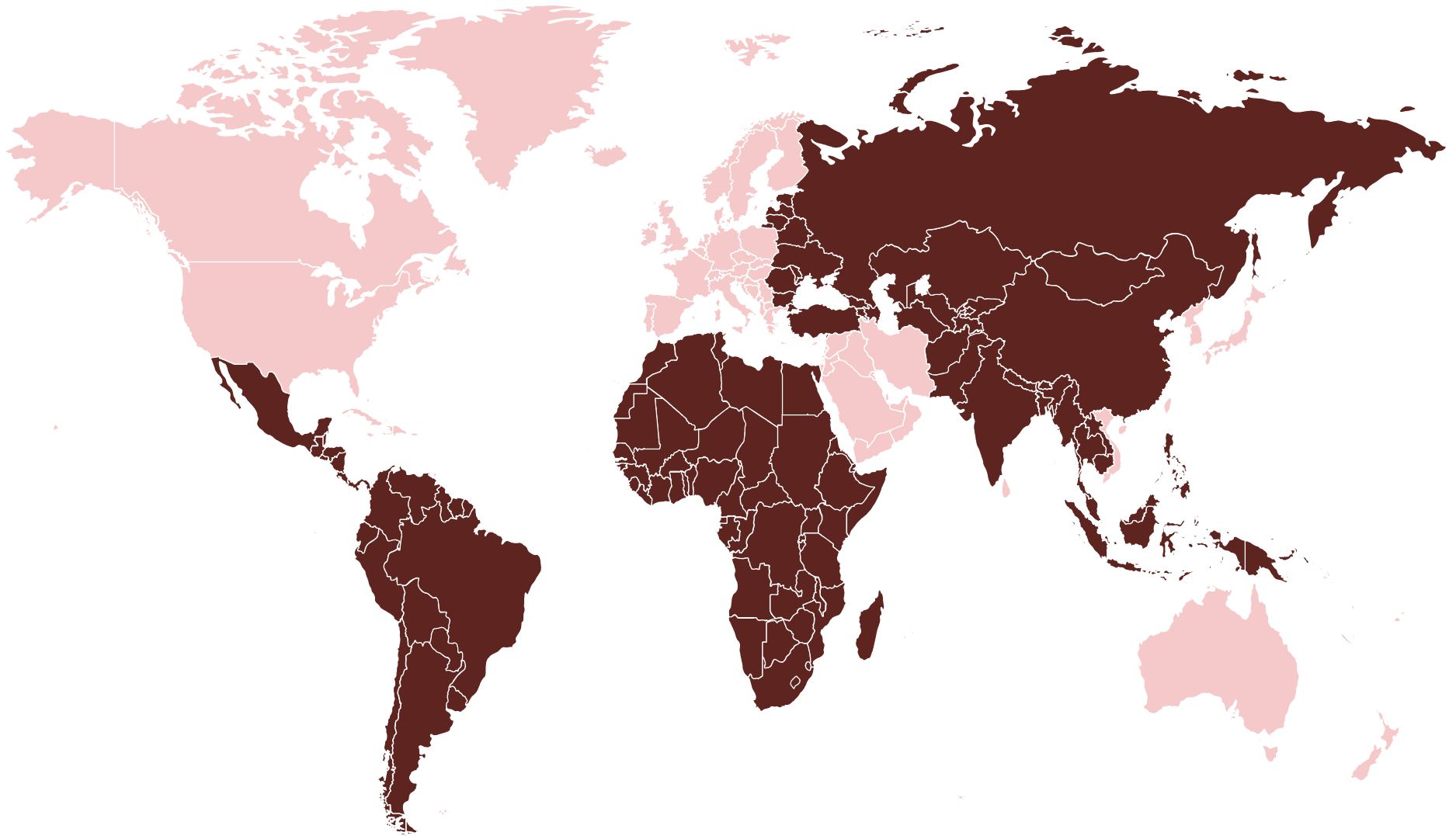
Note: Values exclude the announced Glencore / Xstrata merger

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***But it was a case of “the West vs. the rest”:  
Developed market buyers were most active in the developed  
world...***

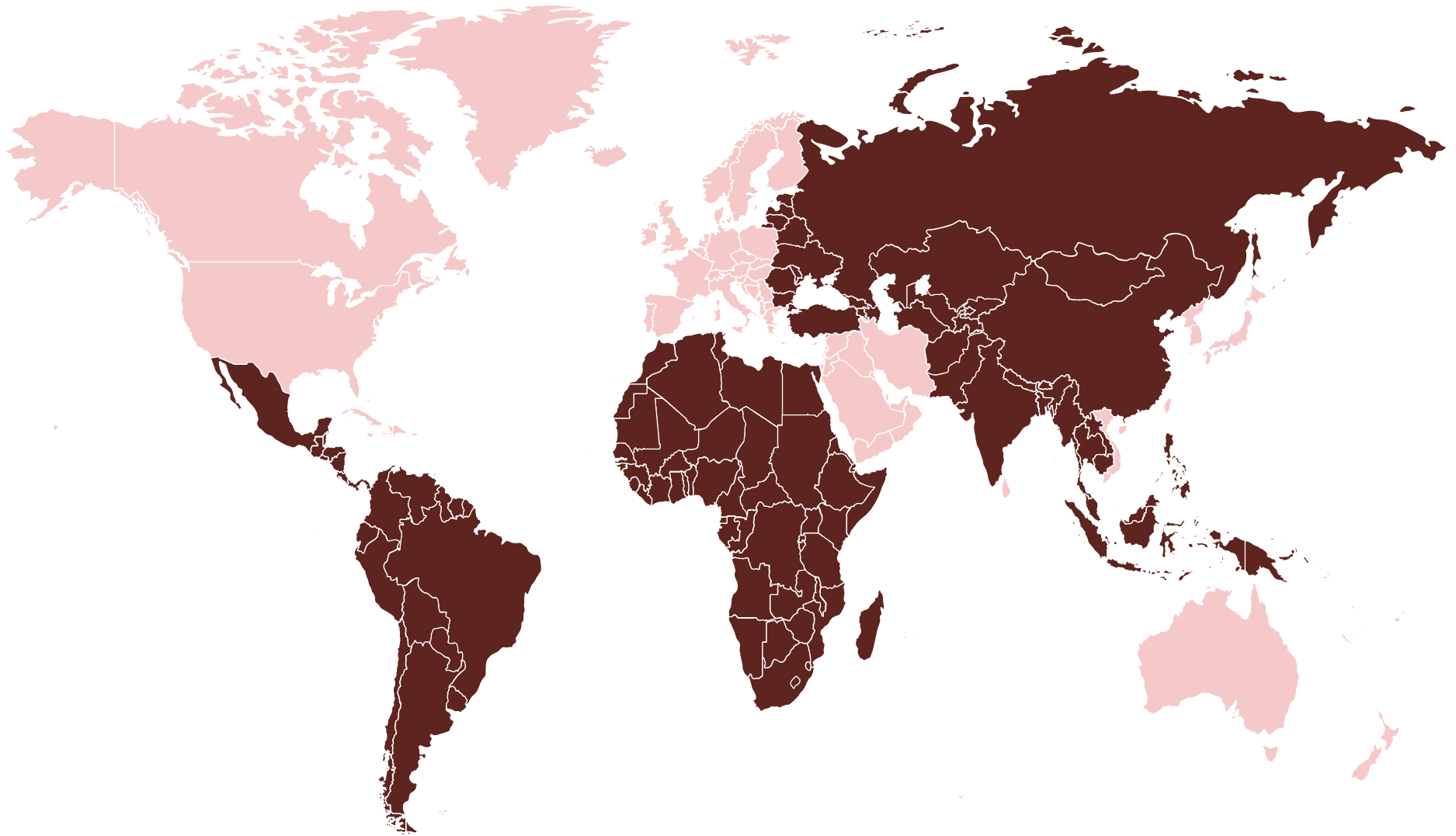


*...Growth markets buyers were most active in growth markets...*



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*...where three quarters of the world's known reserves are believed to be found.*



*“This is not a world in which the major global diversified miners will necessarily find it easy to operate. They are, after all, very much products of the process of economic globalisation and the free flow of global capital.”*

~ Dr. David Humphreys, former chief economist for Rio Tinto and Norilsk Nickel

## *Top ten transactions in 2011*

Announced Date	Target	Target Headquarters	Target Resource	Value (millions)	Acquirer	Acquirer Headquarters
July 14, 2011	Petrohawk Energy Corp.	US	Oil and Natural Gas	US\$15,100	BHP Billiton Ltd.	Australia
Jan 28, 2011	Massey Energy Co.	US	Coal	US\$6,000	Alpha Natural Resources, Inc.	US
Apr 24, 2011	Equinox Minerals Ltd.	Australia	Copper	C\$7,300	Barrick Gold Corp.	Canada
Nov 9, 2011	Anglo American Sur SA	Chile	Copper	US\$5,390	Mitsubishi Corp	Japan
July 11, 2011	MacArthur Coal Ltd.	Australia	Coal	A\$4,800	PEAMCoal Pty Ltd	Australia
Nov 4, 2011	The De Beers Group	Luxembourg	Precious Metals & Minerals	US\$5,100	Anglo American plc	UK
Jan 11, 2011	Consolidated Thompson Iron Mines Ltd	Canada	Steel	C\$4,900	Cliffs Natural Resources Inc.	US
May 2, 2011	International Coal Group Inc.	US	Coal	US\$3,400	Arch Coal Inc.	US
Dec 6, 2011	Quadra FNX Mining Ltd	Canada	Copper	C\$3,500	KGHM Polska Miedz SA	Poland
Apr 14, 2011	KazzInc JSC	Kazakhstan	Zinc	US\$3,200	Glencore International plc	Switzerland

## *Top five transactions in Q1 2012*

Announced Date	Target	Target Headquarters	Target Resource	Value (millions)	Acquirer	Acquirer Headquarters
Feb 7, 2012	Xstrata plc	Switzerland	Diversified Metal Ores	US\$90,000	Glencore International plc	Switzerland
Jan 2, 2012	Anglo American Sur SA	Chile	Copper	US\$6,000	Corporación Nacional del Cobre (Codelco)	Chile
Jan 17, 2012	Roy Hill Holdings Pty Ltd.	Australia	Iron Ore	US\$1,555	POSCO	Korea
Jan 23, 2012	Minefinders Corp. Ltd.	Canada	Gold	US\$1,250	Pan American Silver Corp	Canada
Jan 5, 2012	Kolwezi Investments Limited, Frontier Sprl, La Compagnie minière de Sakania Sprl, and Roan Prospecting	South Africa, Democratic Republic of Congo	Copper	US\$1,035	Eurasian Natural Resources Corp Plc	UK

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## ***II. 2012 Outlook***

*The times they are a changin'*



*“Mining companies are like sharks: if they don’t keep moving forward, they’ll eventually die.”*

~ David Fickling and David Winning, Wall Street Journal,  
Feb. 22, 2011

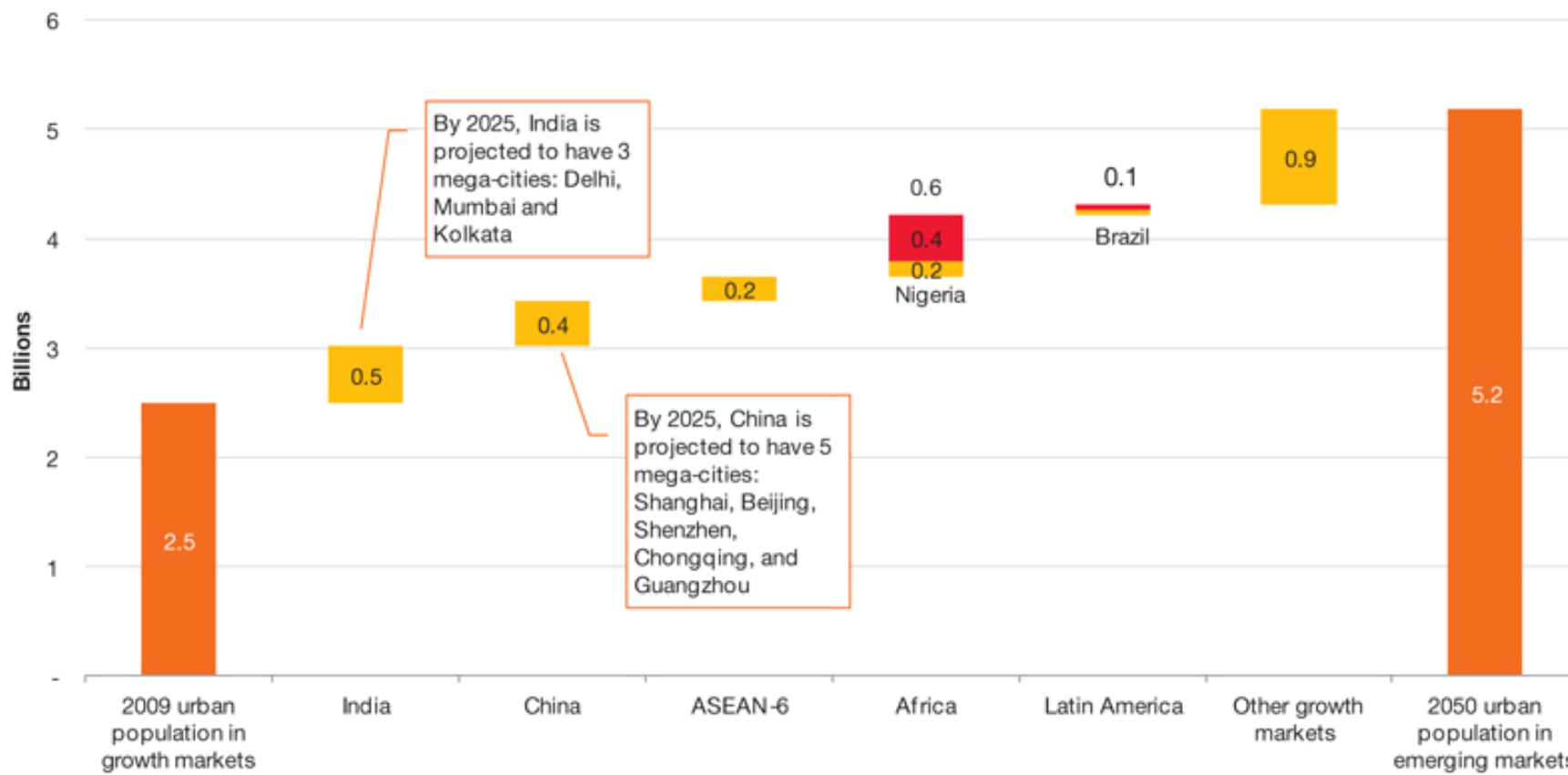
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## *Our expectation for 2012?*

*We expect that growth world demand will underpin record M&A in major mining resource sectors in 2012.*

# *Deceleration fears are overblown. The rate of urbanization in growth markets is extremely high...*

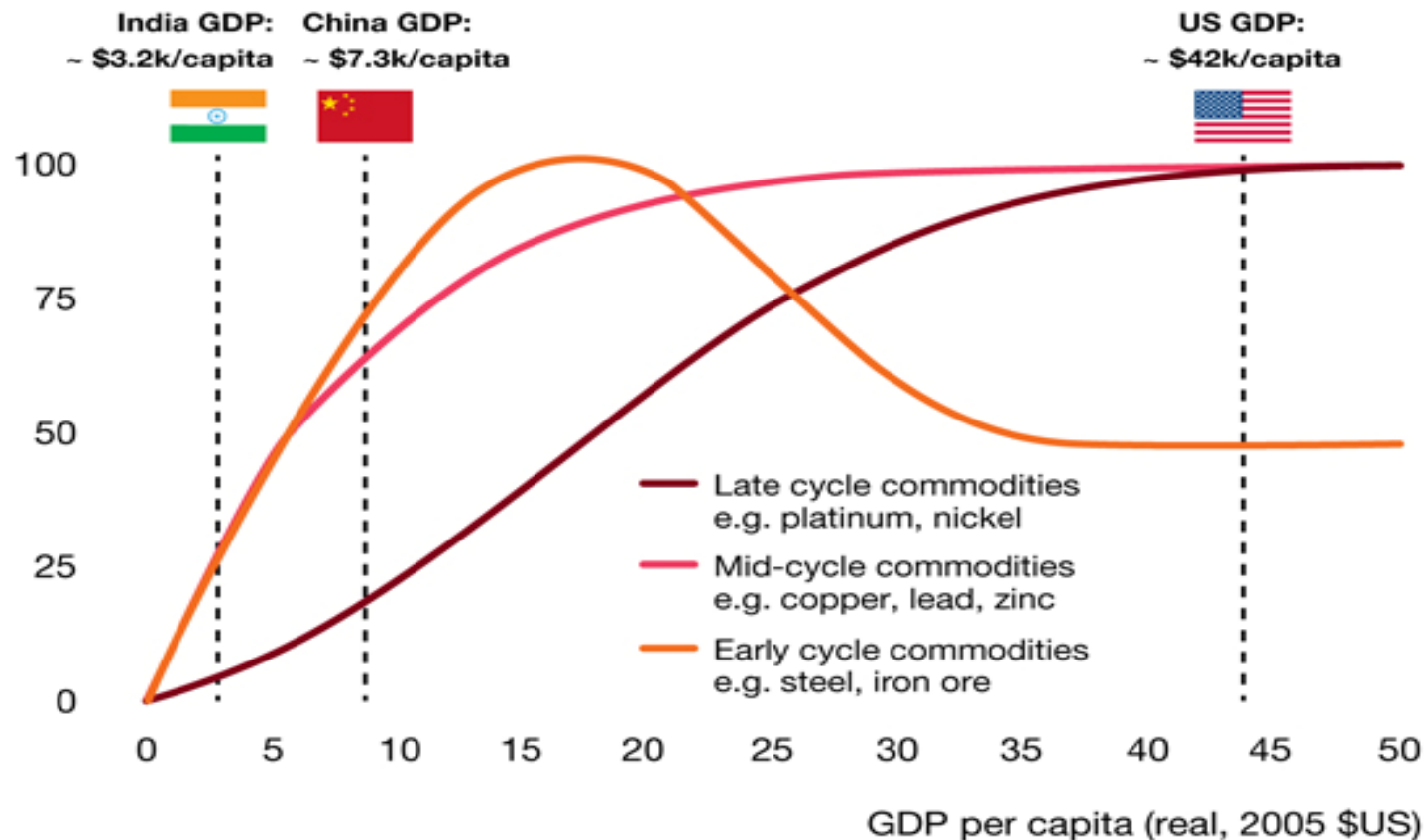
Urban population in emerging markets, 2009 – 2050 (Megacities = urban aggregation containing more than 10 million inhabitants)



Source: UN, World Urbanization Prospects The 2009 Revision

*...which will bode well for industrial resource prices...*

### Commodity Intensity

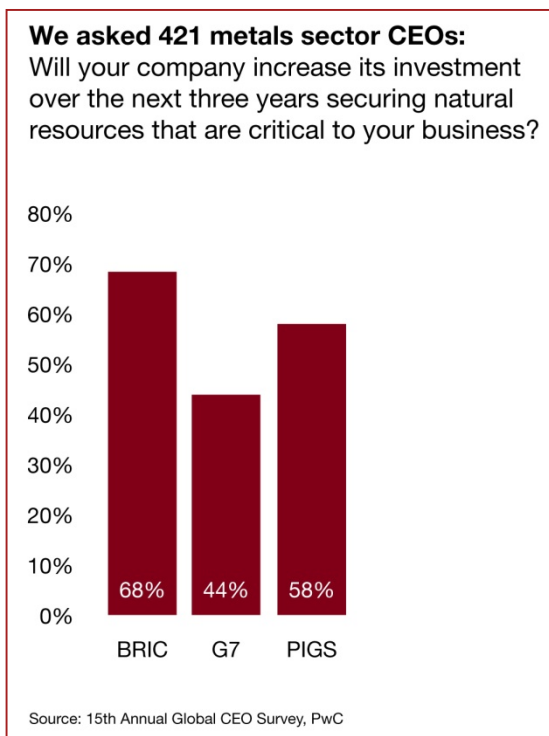


Source: Xstrata, reproduced with permission

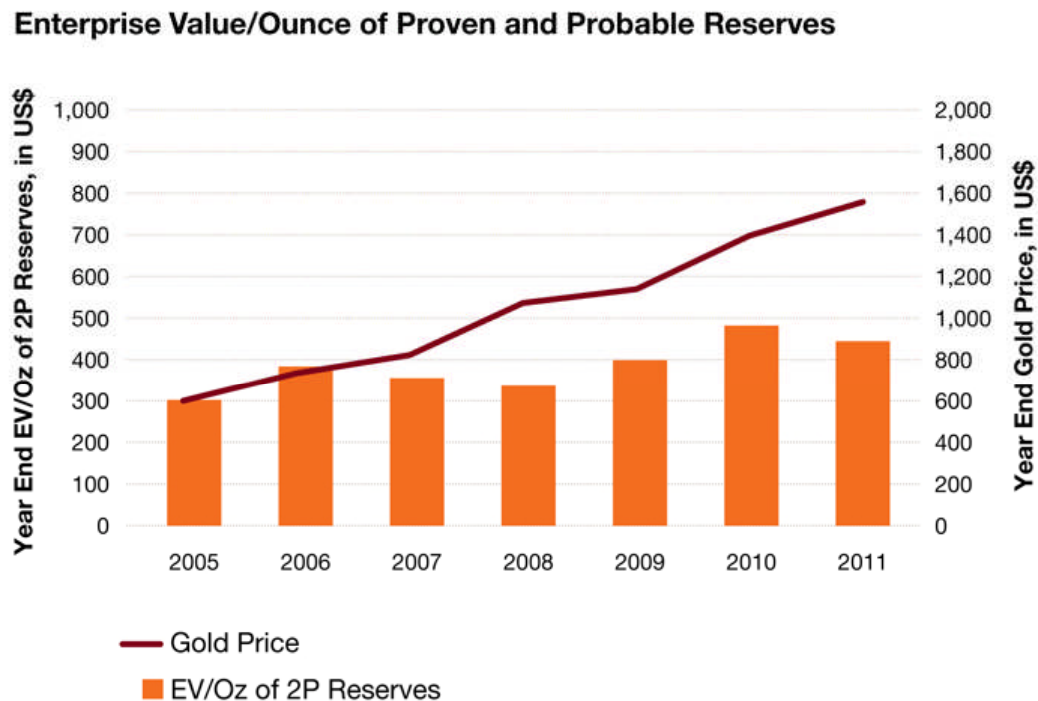
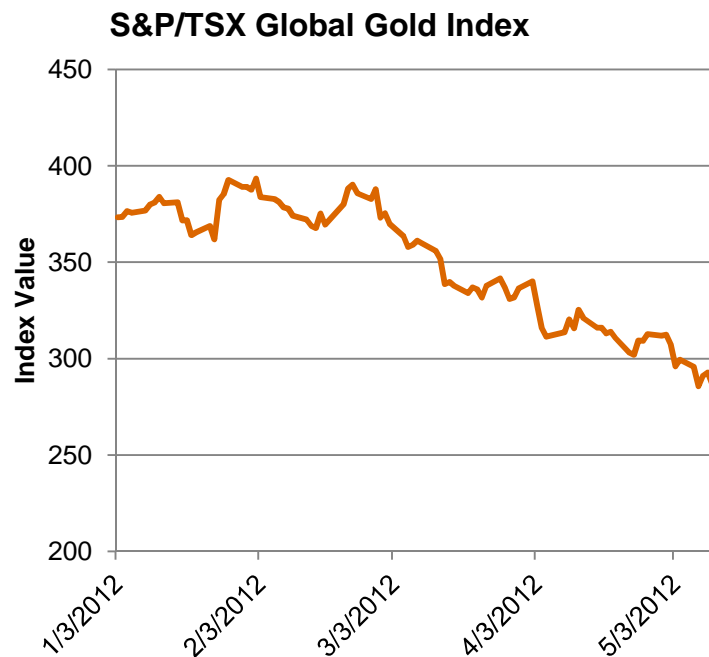
# *...and prompt miners and steelmakers to aggressively seek out acquisition targets ahead of price strengthening.*

Total cash held by worlds top 40 miners (2010 year-end)	\$
2010 fiscal deficit, Canada	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$!
2010 fiscal deficit, Italy	\$!
Quoted market capitalization, TSX-V listed mining companies (at December 31, 2011)	\$\$\$\$\$\$\$\$
Total equity raised by AIM listed companies, since 1995	\$\$\$\$\$\$

\$ = US\$5 billion



# Gold is an interesting exception.



Source: Bloomberg, Capital IQ, company financial statements, PwC Analysis

*Widening gap between gold prices & gold equity.*

## *Financial buyers will gradually enter the fray...*

### *Traditionally, mining hasn't worked for financial buyers:*

- Illiquidity
- High capital expenditure requirements
- Long hold periods
- Regulatory, environmental and sovereign risks
- Concentration risk
- Price risk

### *But views are changing:*

- PEs complete over 50 deals in the Canadian mining sector in 2011
- Resource capital funds takes Molycorp public, the most successful IPO of 2010.
- Qatar Investment Authority, provides a \$600 million, seven year loan plus a \$150 million unsecured loan with equity participation to European Goldfields.

*“...My New Year’s resolution for 2011 was to try to find an appropriate mining investment – and it carries over as a resolution in 2012...”*

~ Jeff Donahue, Senior Principal, Private Investments  
Canadian Pension Plan Investment Board



## *...but will face challenges “getting it right” in mining...*

### *Sovereign Wealth Funds*

- *Non-controlling stakes*
- *Small and mid size producers*
- *Low cost debt an advantage*

### *Pension funds Hedge funds Pure-play private equity*

- *Utilize debt-like instruments*
- *Resources which do not require multi-billion dollar follow on investments in infrastructure*
- *Focus on resources with unique drivers and lower risk profiles*
- *Projects that do not have a “logical strategic buyer”*

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## ***Many miners will venture into the last “untapped” resource bed, Africa...***

- Unparalleled resource potential
- Africa is quickly urbanizing
  - Africa now has as many cities with >one million people as Europe
- “Plan of action” adopted for the implementation of an African Mining Vision.
- The African National Congress has reaffirmed its intention *not* to nationalize the mining industry.

***“African governments increasingly adopted policies to energize markets. They privatized state-owned enterprises, increased the openness of trade, lowered corporate taxes, strengthened regulatory and legal systems, and provided critical physical and social infrastructure.”***

McKinsey Quarterly, June 2010

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## ***Challenges abound for developed world buyers in Africa as well most other growth markets...***

- Tough to access deal opportunities; “privileged access” a reality
- State capitalism changes the playing field
- “Speculation-out” (aggressive timetable to develop or rights lost)
- Post-deal “costs” high
- High failure rate, expensive to fail
  - 50-60% of deals that enter due diligence in growth markets fail to complete
  - The cost of problems on these “bad” deals averaged around 50% of the total investment (excluding share price impact, negative investor relations, etc.)

***“...Indeed, there is quantitative evidence that FDI and economic cooperation often go hand in hand [in Sub Saharan Africa], and higher FDI from China is associated with greater concentration of exports to China.”***

IMF Working Paper “FDI from BRICs to LICs: Emerging Growth Driver?” Mlachila Montford, Takebe, Misa, July 2011

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***...they will need to adopt strategies to “make deals work” in growth markets...***

- Shield of stakeholders
- Re-tool risk evaluation strategies
- Consider spinning off projects in higher risk geographies into separate entities
- Appreciate the value parameters of state capitalists
- Ensure you have the “right team” in place
- Revise negotiating approach
- Assess and reassess political risk, run numerous scenarios

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## *...as developed world miners face an unfamiliar world...*

*“The traditional corporate toolkit to respond to the risks of resource nationalism is outdated and inadequate.”*

Amsterdam & Peroff

*“...regardless of geology, many publicly listed juniors are still hesitant to explore in countries that historically have not protected their long-term interests.”*

Metals Economics Group

*“The emerging market miners have become formidable competitors for the large miners based out of developed countries. They frequently benefit from preferential access to resources on their home territories, and they are well adapted to managing the risks of operating in other emerging market countries, while the participation of the state in some of these companies gives them a level of political support that the traditional miners cannot expect.”*

Dr. David Humphreys, former chief economist of Rio Tinto and Norilsk Nickel

## *Political risk*

Type of Political Risk	Growth market examples
Taxation and royalties	Peru, Zambia, Tanzania
Mining reform/contract revisions	Brazil, Zimbabwe, Mongolia, Guinea
Expropriation/nationalization	Venezuela, South Africa
National champions	Russia, Brazil, South Africa
Domestic market obligations/value-added production	Brazil, Kazakhstan
Local environment/social opposition	Panama, Guatemala, Colombia, Philippines
Security	Mexico, Cote d'Ivoire, Papua New Guinea, Niger
Government stability and transparency	Kazakhstan, Guinea, Zimbabwe, Indonesia, Cote d'Ivoire

Source: Eurasia Group

*“It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.”*

*~ Charles Darwin*

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## *III. A closer look...*

Century Iron Mines Corporation – Case Study

Alderon Iron Ore – Strategic Partnership



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## ***Case Study: Century Iron Mines Corporation***

### **About Century Iron Mines**

- Century Iron Mines Corporation is Canada's largest holder of iron ore land claims

### **About WISCO**

- Wuhan Iron and Steel Corporation (WISCO) is China's third largest steel producer

### **The deal**

In November 2011, Century Iron Mines announced the execution of joint venture agreements with WISCO. In addition to WISCO's initial investment, Century Iron received an additional \$120 million from WISCO on executing the JV agreements. Following these investments, WISCO:

- held an approximate 25% equity stake in Century Iron (corporate level);
- will participate in a 40/60 joint venture in three projects (Duncan Lake, Attikamagen and Sunny Lake), which entitles them to 40% of production;
- has the rights to an additional 20% of production (at market prices) via an off-take agreement; and
- will support debt financing of development.

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## ***Case Study: Century Iron Mines Corporation***

PwC had a discussion with Sandy Chim, president and CEO of Century Iron Mines Corporation. Some of the highlights of that discussion are outlined below.

### **Benefits of working with a China-based steel mill**

- **Scale:** To build a world-class iron ore business requires access to capital outside of the realm of comfort for most traditional capital providers
- **Protection against market volatility:** Nearly impossible to find the “best time” to finance iron ore projects. Best to find a *strategic partner* to avoid scrambling for financing
- **The right end product:** Helps to foster a longer term sales relationship and create a competitive advantage
- **Access to technical competencies:** Experienced strategic partners provide an intangible value in the form of constructive guidance
- **Pre-production sale guarantees:** The off-take portion of a strategic partnership can be one of the most attractive aspects of that partnership
- **Access to Chinese markets:** New iron ore mines cannot ignore 45% of the steel market

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## ***Strategic Partnership: Alderon Iron Ore Corp***

### **About Alderon Iron Ore Corp**

- Alderon is a leading Canadian iron ore development company with majority ownership of the Kami Project located in Canada's premier iron ore district

### **About Hebei Iron and Steel Group**

- Hebei Iron and Steel Group is the largest steel producer in China and the second largest in the world

### **The deal**

In April 2012, Alderon Iron Ore announced the signing of a subscription agreement with Hebei Iron and Steel Group. Details surround the agreement are as follows:

- Hebei Iron and Steel will invest C\$194 million for 19.9% of the outstanding common shares of Alderon and a 25% interest in a newly formed limited partnership established to own the Kami Project;
- Hebei agrees to use its best efforts to assist in obtaining project debt financing for the Kami Project from financial institutions, including Chinese banks; and
- Hebei has agreed to an off-take agreement of 60% of the annual production upon commencement of commercial production.

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# *Thank you!*

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