

Copper (Q2, 2014 and Q3, 2014)

Insight: Price pressure likely to remain

This year has seen miners intensify their efforts to ramp up production while adopting aggressive cost minimization and efficiency initiatives. This has been and remains critical as they seek to manage the impacts of falling copper prices.

Copper prices have dropped on average by 6 percent during 2014, dipping below the psychological US\$3/lb in October for only the second time since March's near 4 year low. Slowing demand from China and the EU coupled with an expectation that supply will exceed demand in the medium term has placed downward pressure on prices. This is despite the fact that current prices are enticing some opportunistic buyers to stockpile as they take advantage of lower prices.

Price pressure is likely to remain, at least for the medium term, as the market shifts to excess supply. A raft of new mines are expected to come online, with Peru leading the way. The Latin American country has communicated its intention to become the second largest producer of copper behind Chile and expects production to double to 2.8 million tonnes by 2016.¹ Indonesian exports have also resumed after

“Price pressure is likely to remain, at least for the medium term as the market shifts to excess supply.”

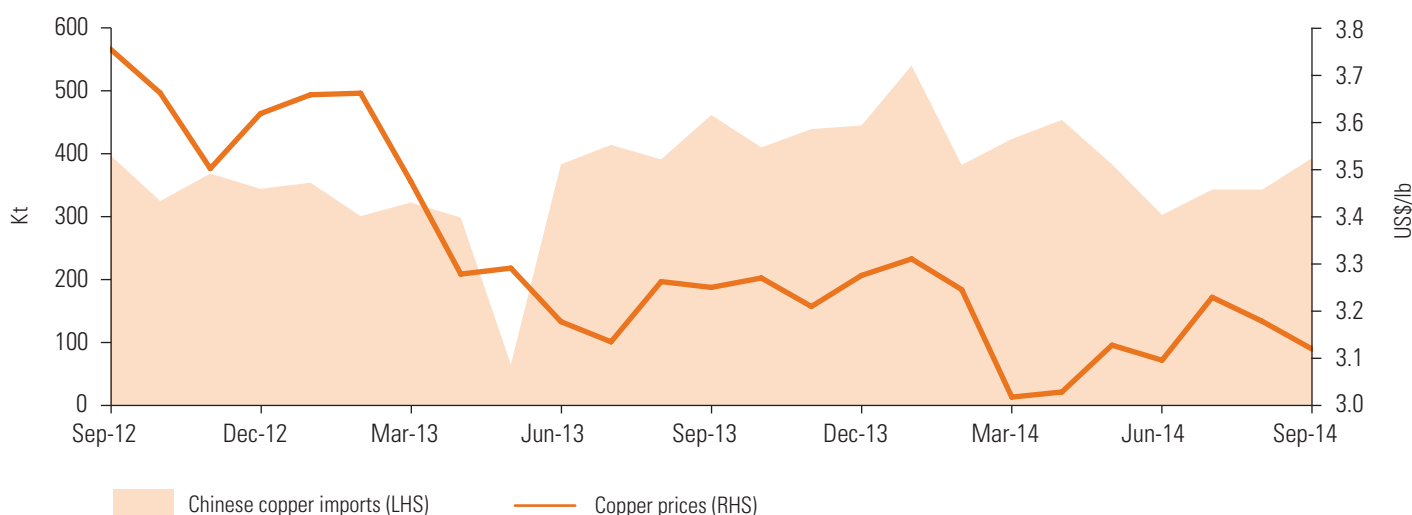
Maritza Araneda
KPMG in Chile

the export of concentrates were stopped earlier this year as the government sought to encourage domestic processing.

Another government seeking to spur on production is the Chilean government who approved a \$4 billion capital contribution to state owned Codelco. This is aimed at increasing Codelco's output to 2 million tonnes per annum.²

Notwithstanding the effects of the likely surplus in the medium term, it is expected to be temporary as long-term optimism in the copper market remains.

Figure 1: China Copper imports and LME copper prices, September 2012–2014

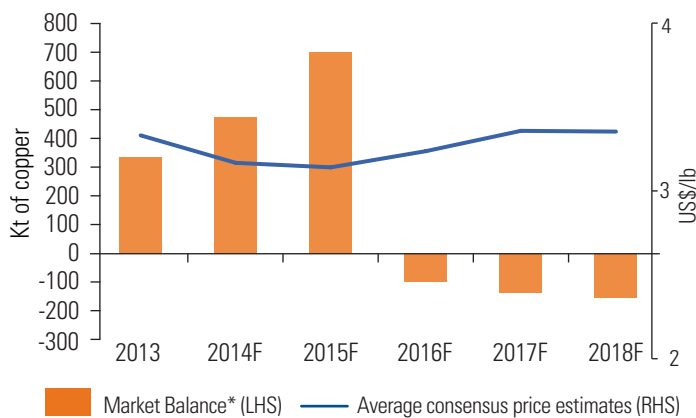


Sources: “Import & Export commodities by industry”, China Custom Statistics, HKTDC Research, <http://china-trade-research.hktdc.com/business-news/article/Fast-Facts/China-Customs-Statistics/ff/en/1/1X000000/1X09N9NM.htm>, accessed 16 October 2014; IMF Primary Commodity Prices, International Monetary Fund, <http://www.imf.org/external/np/res/commmod/index.aspx>, accessed 16 October 2014; “China Imports and Exports of Copper and Aluminum in September 2014”, Shanghai Metals Market, 13 October 2014, accessed 16 October 2014; KPMG Analysis

¹ “Perú duplicará producción de cobre y sería segundo a nivel mundial en el 2016”, Ministerio de Energía y Minas, July 7, 2014

² “Ministros de Hacienda y Minería anuncian histórica capitalización de Codelco por hasta US\$4.000 millones para periodo 2014-2018”, Ministerio de Hacienda, August 1, 2014

Figure 2: Market balance and prices of refined copper, 2013–18F



Source: BB&T Capital Markets – Diversified mining weekly: A look at the Q3 earnings calendar, 6 October 2014; Frontier securities – Copper market outlook (September 2014), 1 October 2014; Credit Suisse – Copper sector review – Commodities review and sector update, 23 September 2014; Morgan Stanley – Australia copper: Copper one of our preferred commodities; Ozl for leverage; via Thomson Research/Investext accessed October 2014; “World commodity forecasts: industrial raw materials”, EIU, May 2014; “Resources and Energy Quarterly”, Bureau of Resources and Energy Economics, Australian Government, March Quarter 2014; “Resources and Energy Quarterly”, Bureau of Resources and Energy Economics, Australian Government, September Quarter 2014; KPMG Analysis

*Market balance represents the difference between the supply and demand of refined copper. A positive market balance indicates that the supply is more than the demand, whereas a negative market balance indicates demand exceeding supply.

Price outlook^{3,4}

Copper prices, which averaged at about US\$3.33/lb during 2013, are expected to decrease to US\$3.15/lb in 2014. This is mainly due to significant rise in supply as compared to demand. With increased production from new and expanded mines in regions such as Peru, the market balance is expected to further increase in 2015. This will bring down the prices of copper to about US\$3.12/lb in 2015.³

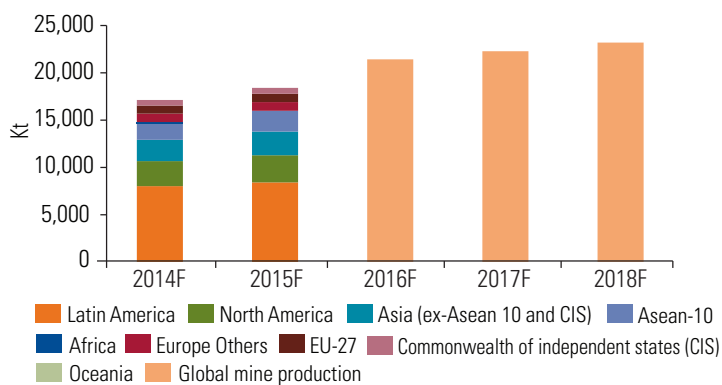
However, post 2015, the market balance is expected to become negative with demand overtaking supply. Demand growth is expected to be driven by an economic recovery in EU and higher demand from the US markets. This could also be supported by increased demand from Japan as the government’s fiscal initiatives take shape. Thus, copper prices are expected to recover starting 2016, from US\$3.23/lb in 2016 to US\$3.36/lb in 2018.^{3,4}

Supply and demand^{5,6}

Supply

Mined copper production

Figure 3: Global production of mined copper, 2014F–2018F*



Source: BB&T Capital Markets – Diversified mining weekly: A look at the Q3 earnings calendar, 6 October 2014, via Thomson Research/Investext accessed October 2014; “Resources and Energy Quarterly”, Bureau of Resources and Energy Economics, Australian Government, September Quarter 2014; KPMG analysis

*Break up for world mine production in 2016, 2017 and 2018 is not available

- Global mined copper production in 2014 is being led by the Latin American region. A number of projects, especially in Peru, are expected to drive the global production surge in 2014. According to its central bank, the country is targeting to increase its production by

17–20 percent y-o-y (year-on-year) in 2014. A number of projects, such as Glencore’s Antapaccay mine, are ramping up production. The Antapaccay mine is expected to produce about 160Kt of copper in 2014. Other projects ramping up production in the country include Chinalco’s Toromocho, Freeport McMoRan’s Cerro Verde expansion, Anglo American’s Quellaveco and Michiquillay projects, Southern Copper’s Toquepala and Cuajone mine expansions. Peru is currently the third-largest copper mining country in the world. Post 2014, however, it is expected to become the second-largest, after Chile.⁵

- Regulatory changes in Indonesia have caused concerns for the global copper industry. The country introduced a new export policy to encourage domestic processing of the mined ore in January 2014. This resulted in a complete stop of concentrate exports during January to August 2014. Freeport McMoRan, which operates the Grasberg mine, was allowed to export from August 2014, as it had agreed to pay higher royalties and taxes on copper-concentrate exports. The company also agreed to support the building of a smelter in the country. However, Newmont, which operates the Batu Hijau mine, was not granted an export license. Newmont declared force majeure in June 2014 due to lack of space for storing the concentrate produced at the mine. This resulted in a significant decline in copper exports from Indonesia even post July 2014.⁵

³ BB&T Capital Markets – Diversified mining weekly: A look at the Q3 earnings calendar, 6 October 2014; Frontier securities – Copper market outlook (September 2014), 1 October 2014; Credit Suisse – Copper sector review – Commodities review and sector update, 23 September 2014; Morgan Stanley – Australia copper: Copper one of our preferred commodities; Ozl for leverage; via Thomson Research/Investext accessed October 2014; “Resources and Energy Quarterly”, Bureau of Resources and Energy Economics, Australian Government, September Quarter 2014; IMF Primary Commodity Prices, International Monetary Fund, <http://www.imf.org/external/np/res/commod/index.aspx>, accessed 16 October 2014

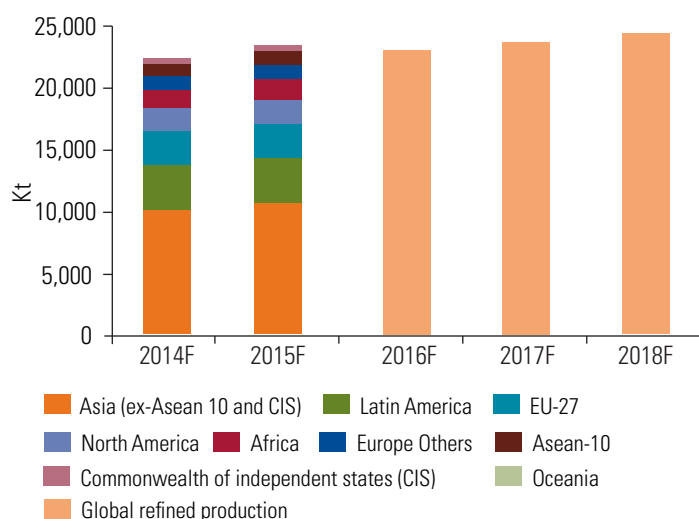
⁴ “World commodity forecasts: industrial raw materials”, The Economist Intelligence Unit, October 2014

⁵ “World commodity forecasts: industrial raw materials”, The Economist Intelligence Unit, October 2014

- Another region that has seen significant investment and production growth in recent years is Central Africa. Vedanta has made one of the largest investments in the Konkola Deep project in Zambia. This, along with other projects, should help increase Zambia's output and achieve the country's target of 900Ktpa mine production in 2014. The country subsequently plans to increase production to 1,100Ktpa in 2015 and 1,500Ktpa in 2016.⁵

Refined copper production

Figure 4: Global production of refined copper, 2014F–2018F**



Source: BB&T Capital Markets – Diversified mining weekly: A look at the Q3 earnings calendar, 6 October 2014, via Thomson Research/Investext accessed October 2014; “Resources and Energy Quarterly”, Bureau of Resources and Energy Economics, Australian Government, September Quarter 2014; KPMG analysis

**Break up for world production in 2016, 2017 and 2018 is not available

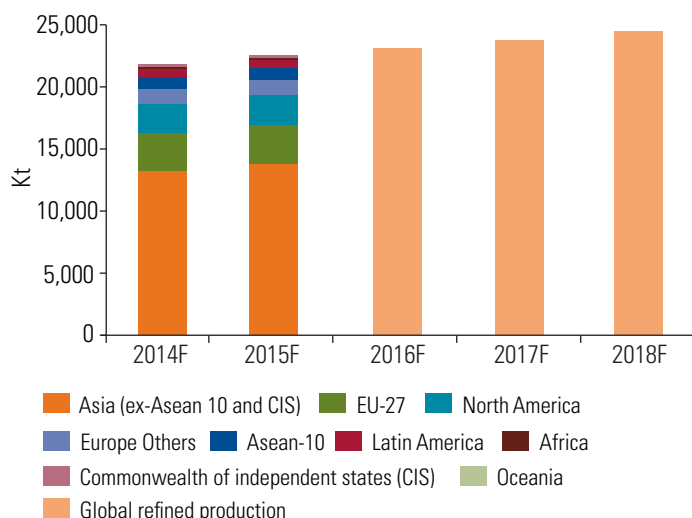
- China is the world's largest importer of raw copper and the largest producer of refined copper cathodes. The country has the largest smelting capacity base in the world. Its refined copper production increased by about 10 percent y-o-y during January to July 2014. However, even these high smelter processing levels are unable to keep pace with the increase in copper concentrate imports and domestic concentrate production of copper, which are mainly used as a feedstock for the country's smelting capacity. This is leading to an increase in copper concentrate stockpiles in the region. However, this also ensures that copper cathode production from China remains high in at least the short term with significant feedstock available to feed the smelters.^{5,6}
- The global smelting industry has been facing disruptions during 2014. The Ventanas smelter in Chile, run by Codelco, was closed for 23 days to upgrade the environmental performance of the facility. Sterlite's Tuticorin smelter in India also undertook maintenance. Smelters such as Jinchuan's Gansu smelter in China have also been reducing throughput since March due

to an equipment failure. Force majeure conditions such as the typhoon in the Philippines in November 2013 affected Glencore's Pasar plant which remained closed due to damage during Q1, 2014. These disruptions have negatively affected global smelting throughput during 2014.⁵

- Globally, sufficient concentrate availability with increasing mine throughput is expected to keep the global copper smelting market well supplied at least in the short term. However, supply disruptions and build-up of stocks in the concentrate supply chain, due to issues such as regulatory constraints, present a downside risk to this scenario.

Refined copper consumption

Figure 5: Global consumption of refined copper, 2014F–2018F***



Source: BB&T Capital Markets – Diversified mining weekly: A look at the Q3 earnings calendar, 6 October 2014, via Thomson Research/Investext accessed October 2014; “Resources and Energy Quarterly”, Bureau of Resources and Energy Economics, Australian Government, September Quarter 2014; KPMG analysis

*** Break up for world consumption in 2016, 2017 and 2018 is not available

- China was the world's largest refined copper consumer and accounted for about 50 percent of the global consumption in 2013. Most of the refined copper brought into the country during the year was consumed physically. However, some portion of this could have also gone into unreported stockpiles, which would be used as collateral for financing purposes. Chinese production of semi-fabricated copper and brass products increased by about 17 percent y-o-y during 1H14. With manufacturing activity increasing and all indicators pointing toward manufacturing growth, the outlook for refined copper consumption from China is positive in 2014. However, factors such as liquidity squeeze in the banking sector and Chinese government's efforts to control excess growth in the property markets poses a downside risk to this scenario.^{5,6}

⁶ “Resources and Energy Quarterly”, Bureau of Resources and Energy Economics, Australian Government, September Quarter 2014

- Demand from the remaining Asian economies is expected to improve in 2014. Growth in refined copper demand has been weak in the recent years. This could be due to incidents of destocking inventory in these economies. Also, weakness in demand for products such as semiconductor and electronic parts affected refined copper consumption from economies such as Japan. Now, with government initiatives such as loose monetary policy and stimulus expenditure, the situation is expected to improve in Japan. There could also be restocking in the Asian economies with the stronger growth witnessed in the region.^{5,6}
- Refined copper consumption from the US has been relatively flat during 2011 and 2012. However, starting 2013, the refined copper demand has grown a bit as consumer confidence and manufacturing activities are improving. Refined copper demand in the US increased by about 4 percent y-o-y in 2013. Demand in 2013 came

mostly from the automotive and residential construction sectors. With unemployment decreasing, the 2014 outlook for copper remains positive for the US. As per Economist Intelligence Unit (EIU), copper consumption is expected to increase about 2.6 percent for 2014 as a whole in the US.⁵

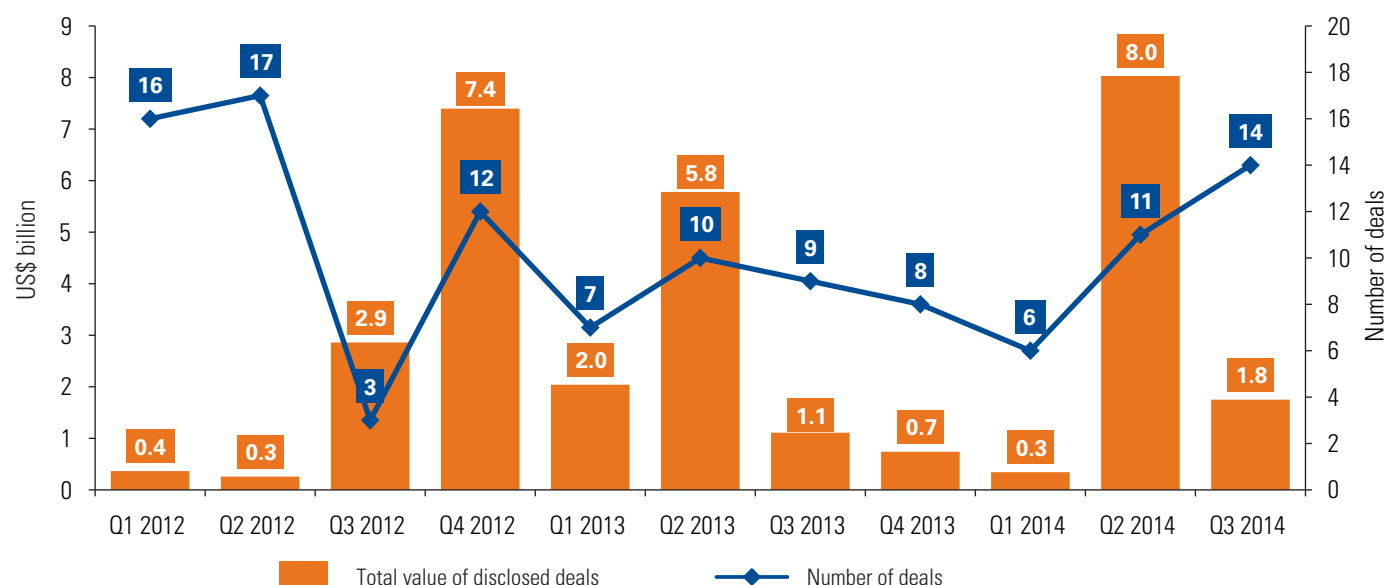
- European consumption of refined copper has been affected due to the weakness in the economic situation in the region. Refined copper consumption declined by 0.9 percent y-o-y in 2013. However, with the economic situation now improving and ongoing tightness in the regional scrap market the situation is expected to change in 2014. Tightness in the scrap markets has led semi-fabricators to increase their usage of primary refined metal in the absence of secondary scrap feed. However, the fiscal austerity measures being adopted by the region could remain a constraint to growth in 2014. As per EIU, copper consumption is expected to increase about 2.8 percent in Europe for 2014 as a whole.⁵

Key developments

Ownership changes⁷

The total value of announced deals in the copper industry increased by about 39 and 58 percent y-o-y to reach US\$8.0 billion and US\$1.8 billion during Q2, 2014 and Q3, 2014, respectively. The number of deals in Q2, 2014 increased to 11 as compared to 10 in Q2, 2013. It further increased to 14 during Q3, 2014.

Figure 1: Value of announced deals in the copper industry



Source: Mergermarket database accessed October 2014; KPMG analysis

⁷ Mergermarket database, accessed October 2014

Table 1: Copper deals in 2Q & 3Q14

Date announced	Target	Target nation	Acquirer	Acquirer nation	Status	Value of transaction (US\$ million)	Stake (%)
29-Sep-14	Cachoeiras do Binga copper exploration project	Angola	VDM Group Limited	Australia	Announced	10	65
23-Sep-14	Indophil Resources NL	Australia	Alsons Consolidated Resources Inc.	The Philippines	Announced	321 ⁸	80
11-Sep-14	Quaterra Resources Inc.	Canada	Freeport-McMoRan Mineral Properties Inc.	US	Completed ⁹	5	N/A
08-Sep-14	Curis Resources Ltd.	Canada	Taseko Mines Limited	Canada	Announced (expected to close in October 2014)	79	83
03-Sep-14	Harbin Songjiang Copper (Group) Company Limited	China	Harbin Jinyu Mining Co., Ltd.	China	Announced	15	75
28-Aug-14	Societe d'Exploitation de Kipoi SA	Democratic Republic of Congo	Tiger Resources Limited	Australia	Announced (expected to be complete in November 2014) ¹⁰	111	40
27-Aug-14	Tintina Resources Inc.	Canada	Sandfire Resources NL	Australia	Announced	10	36
19-Aug-14	Zhairesky GOK JSC	Kazakhstan	Kazzinc Limited	Kazakhstan	Completed	N/A	N/A
18-Aug-14	Azure Minerals Limited (Promontorio Project in Mexico)	Mexico	Kennecott Explorations (Australia) Ltd	Australia	Announced	49	51
18-Aug-14	Canteras del Hallazgo S.A.C	Peru	Compania de Minas Buenaventura	Peru	Completed	81	51
05-Aug-14	Yunnan Hualian Zinc & Indium Stock Co., Ltd.	China	Yunnan Tin Company Limited	China	Announced	607	76
23-Jul-14	Kazakhmys Plc	Kazakhstan	Cuprum Holding	Kazakhstan	Announced	150	100
13-Jul-14	Jabal Sayid Copper Project	Saudi Arabia	Saudi Arabian Mining Company (Ma'aden)	Saudi Arabia	Announced	210	50
07-Jul-14	Altona Mining Limited (Kylälahti Copper Mine)	Finland	Boliden AB	Sweden	Announced	100	N/A
30-Jun-14	Medinah Minerals Inc	Chile, USA	Medinah Minerals' Peruvian JV partners	Peru	Announced	100	85

⁸ "Alsons buying Indophil for P14b", Manila Standard Today website, 23 September 2014, accessed October 2014

⁹ "Quaterra Closes Sale Of Three Non-Core Assets To Freeport-McMoran Mineral Properties Inc. For US\$5 Million" Quaterra Resource Ltd., 3 October 2014, accessed October 2014

¹⁰ "Tiger to acquire remaining Kipoi project interest", Mining Hive website, 28 August 2014, accessed October 2014

Date announced	Target	Target nation	Acquirer	Acquirer nation	Status	Value of transaction (US\$ million)	Stake (%)
18-Jun-14	Robust Resources (Kyrgyzstan operations)	Kyrgyzstan	Mentum Inc	United Kingdom	Completed	46	60
17-Jun-14	Lumina Copper Corp.	Argentina, Canada	First Quantum Minerals Limited	Canada, United Kingdom, Zambia	Completed	470 ¹¹	N/A
21-May-14	Norilsk Nickel Cawse Pty Ltd	Australia	Wingstar Investments Pty. Ltd.	Australia	Announced	N/A	N/A
16-May-14	Perkoa Project	Burkina Faso	Merope Holdings Ltd	Australia, Bermuda	Announced	10	27
18-Apr-14	Sichuan Western Resources Holding Co Ltd	China	Que Wenbin (Private Investor)	China	Announced	457	35
15-Apr-14	CCC Mining Construction B.V.	Kazakhstan	Kazakhmys Plc	United Kingdom, Kazakhstan	Completed ¹²	260	N/A
13-Apr-14	Xstrata Las Bambas S.A	Peru	MMG South America Management Company Limited	Hong Kong	Completed	5,850 ¹³	100
03-Apr-14	BHP Billiton Ltd (West Musgrave project)	Australia	Cassini Resources Ltd	Australia	Announced	9	100
03-Apr-14	Aston Metals (Qld) Limited	Australia	Aeon Metals Limited	Australia	Completed ¹⁴	34	N/A
01-Apr-14	China Minerals Energy Limited	British Virgin Islands, China	China Mining International Limited (formerly Sunshine Holdings Limited)	China, Singapore	Announced	796 ¹⁵	N/A

Source: Mergermarket database accessed October 2014; KPMG analysis

¹¹ "Lumina Copper Corp. to Be Acquired by First Quantum Minerals, Cash and Share Transaction Valued at Approximately \$470 Million," First Quantum Press Release, 17 June 2014, accessed October 2014

¹² "Kazakhmys confirms acquisition of third major growth project," Kazakhmys website, 15 April 2014, accessed October 2014

¹³ "Acquisition of Las Bambas," MMG report, 13 April 2014, accessed October 2014

¹⁴ "Aeon acquires Tinkler's Aston Metals," Mining News Premium, 3 April 2014, accessed October 2014

¹⁵ China Mining International Ltd. Deals report," Listedcompany.com, 1 April 2014, accessed October 2014

Regulatory updates

Table 2: List of recent regulations in copper industry

Country	Regulation	Description
Zambia ¹⁶	Removal of tax restriction	<ul style="list-style-type: none"> Zambia waived a controversial tax restriction on copper exports on 8 September 2014, scrapping the rule requiring mining companies to present import documents from the country of destination to get tax refunds. The step was taken after the warning by the chamber of mines that copper mining companies are facing a financial squeeze due to the delayed refund, threatening output and jobs in Zambia, the leading copper producer.
Zambia ¹⁷	Repayment of value-added tax	<ul style="list-style-type: none"> Zambia's finance ministry plans to discuss a staggered repayment of the US\$600 million in value-added tax withheld from copper mining companies for failing to meet a regulation, which the government plans to waive. Affected companies include First Quantum Minerals Ltd, Vedanta Resources Plc, Barrick Gold Corp and Glencore Plc.
Chile ¹⁸	Protection of glaciers	<ul style="list-style-type: none"> The newly elected government in Chile aims to strengthen the protection of glaciers in the Andes, where copper miners, such as Codelco and Anglo American Plc., are looking to expand their mining projects.
China ¹⁹	New standards for copper smelting industry	<ul style="list-style-type: none"> China's Ministry of Industry and Information Technology (MIIT) released standards for copper smelting industry to contain low-level repeated construction and improve energy saving. As per the new standards, new copper smelting projects and projects for renovation are required to have a capacity of more than 100Ktpa, while capacity of the existing secondary copper companies must not be less than 50Ktpa.

Cross-section of global copper projects

Table 3: Cross-section of key copper projects as per 2013 production*

Project	Country/ region	Operators/owners	Commodities	Start year	Stage	2013 copper production (Ktpa)
Antamina Copper/zinc mine	Ancash, Peru	Compania Minera Antamina S.A.	Copper, zinc, silver, molybdenum	2001	Operating	427
Chuquicamata Copper/Molybdenum Mine	Antofagasta, Chile	Codelco	Copper, molybdenum, gold, silver	1910	Operating	339
Collahuasi Copper/Molybdenum Mine	Antofagasta, Chile	Compania Minera Dona Ines de Collahuasi SCMM	Copper, molybdenum, silver	1999	Operating	445
El Teniente Copper operation	Libertador Bernardo Ohiggins, Chile	Codelco	Copper, molybdenum, gold, silver	1904	Operating	417
Escondida Copper operation	Antofagasta, Chile	BHP Billiton Ltd	Copper, gold, silver	1990	Operating	1,126
Grasberg Gold/Copper Operation	Papua, Indonesia	Freeport-McMoRan Copper & Gold Inc.	Copper, gold, silver	1990	Operating	421
KGHM refined Copper/gold/silver production group	Poland	KGHM Polska Miedz S.A.	Copper, gold, lead, silver	1961	Operating	565
Los Bronces Copper/Molybdenum Mine	Santiago, Chile	Anglo American plc	Copper, molybdenum	2002	Operating	416
Los Pelambres Copper/Molybdenum Mine	Coquimbo, Chile	Antofagasta plc	Copper, molybdenum, gold, silver	2000	Operating	405
Radomiro Tomic Copper Mine	Antofagasta, Chile	Codelco	Copper, molybdenum	1998	Operating	380

The above table includes the key Copper projects by 2013 annual production.

The list is not exhaustive and contains only a limited number of projects.

Source: Company data; Intierra

*All the sources have been hyperlinked to the project names.

¹⁶ "Zambia Waives Tax Restriction on Copper Exports – Update," 3 September 2014, via Factiva, accessed October 2014

¹⁷ "Zambia to repay US\$600M in VAT withheld from copper miners," 29 August 2014, accessed October 2014

¹⁸ "Report: Chile to increase glacier protection in Andes, where copper miners hope to expand," 26 May 2014, via Factiva, accessed October 2014

¹⁹ "China MIIT issues copper smelting industry standards Mon.," 28 April 2014, via Factiva, accessed October 2014

Table 4: Cross-section of other copper projects*

Project	Country/Region	Operators/ Owners	Commodities	Start year	Stage	Initial capex excluding sustaining capex (US\$ million)
Aktogay Copper deposit	Shyghys, Kazakhstan	Kazakhmys PLC	Copper, gold, silver	First oxide copper cathode production in 4Q15; first sulphide copper in 2017	Construction	2,300
Andina Copper operation	Valparaiso, Chile	Codelco	Copper, molybdenum concentrates	1970	Operating	6,800 ²⁰
Andina phase 2	Valparaiso, Chile	Codelco	Copper, molybdenum concentrates	2018	Feasibility Study	6,270
Antapaccay Copper/gold mine	Cuzco, Peru	Glencore plc	Copper, gold, silver	2012	Operating	1,500
Bozshakol Copper/silver mine	Pavlodar, Kazakhstan	Kazakhmys PLC	Copper, molybdenum, gold	2015, with copper in concentrate production ramp up during 2016	Pre production mining	2,200
Caspiche Gold/Copper Project	Atacama, Chile	Exeter Resource Corporation	Copper, gold, silver	N/A	Preliminary Economic Assessment completed	387 ²¹
Cobre Panama Copper/Gold/Molybdenum	Penonome, Panama	First Quantum Minerals Ltd.	Copper, molybdenum, gold, silver	2017	Construction	6,425
El Teniente New Mine Level	Libertador Bernardo Ohiggins, Chile	Codelco	Copper, molybdenum, gold, silver	2018	Implementation	3,424
Frieda River Copper/Gold Project	Sanduan, Papua New Guinea	Glencore plc	Copper, gold, silver	N/A	Feasibility Study	1,500–1,800 ²²
Golpu Copper/Gold Deposit	Morobe, Papua New Guinea	Harmony Gold Mining Company Limited	Copper, molybdenum, gold, silver	2019	Feasibility study	4,845
KSM Gold/Copper Project	British Columbia, Canada	Seabridge Gold Inc.	Copper, molybdenum, gold, silver	2015	Pre-feasibility/Scoping	5,256

²⁰ Capex for phase II operations scheduled to start in 2021

²¹ Total capex of US\$1,967 for a combined 60,000 tons per day open pit, heap leach oxide gold operation.

²² Development capital estimate as per a new feasibility study for a mid-sized development expected to be complete by mid-2015

Project	Country/Region	Operators/ Owners	Commodities	Start year	Stage	Initial capex excluding sustaining capex (US\$ million)
Las Bambas Copper/ molybdenum/gold mine	Apurimac, Peru	MMG Ltd.	Copper, molybdenum, gold, silver	2015	Construction	5,200 ²³
Los Azules Copper deposit	San Juan, Argentina	McEwen Mining Inc.	Copper, gold, silver	N/A	Preliminary Economic Assessment completed	3,920
Oyu Tolgoi Copper/ Gold Operation	Omnogovi, Mongolia	Turquoise Hill Resources Ltd.	Copper, molybdenum, gold	2013	Operating	6,600
Pebble Copper/Gold/ Molybdenum Deposit	Alaska, US	Northern Dynasty Minerals Ltd.	Copper, molybdenum, gold	2015	Pre-feasibility/ Scoping	4,700
Quebrada Blanca Copper Mine	Tarapaca, Chile	Teck Resources Limited	Copper, silver, molybdenum	1994	Operating	5,709 ²⁴
Resolution Copper/ Molybdenum Deposit	Arizona, US	Rio Tinto Limited	Copper, molybdenum	2021	Pre-feasibility	6,000
Sierra Gorda Copper/ Molybdenum Project ²⁵	Antofagasta, Chile	KGHM Polska Miedz S.A.	Copper, molybdenum, gold	August 2014	Operating	3,900
Tampakan Copper/ Gold deposit	Mindanao, Philippines	Glencore plc	Copper, molybdenum, gold	2019	Feasibility Study	5,900
Toromocho Copper mine	Junin, Peru	Chinalco Mining Corporation International	Copper, molybdenum, silver	2014	Operating	3,500

The capex mentioned in the table above includes only the initial capex for a project and excludes sustaining capex, contingency amount (if any) etc. The list is not exhaustive and contains only a limited number of projects.

Source: Company data; Intierra

*All the sources have been hyperlinked to the project names.

²³ Initial capital cost of US\$4.2 billion as per a feasibility study in 2010. Company raised the estimate to \$5.2 billion because of permitting delays, infrastructure costs and costs associated with relocating communities.

²⁴ Excluding exchange rate adjustment to teck standard rates (-US\$233) and escalation from August 2011 to January 2012 (US\$118)

²⁵ Technical Report for Sierra Gorda project, 8 June 2011. The capex of US\$2,877 million includes only the initial capex and does not include sustaining capex (US\$975 million) and expansion capex (US\$818 million).





Maritza Araneda

KPMG in Chile

T: +56 2 27981342

E: maritzaaraneda@kpmg.com

Maritza has over 14 years of experience servicing clients in the mining industry in areas of financial reporting, audit and accounting matters, acquisitions and divestments, corporate governance and internal systems.



We've got
mining on
our minds.

STRATEGY

GROWTH

PERFORMANCE

COMPLIANCE

SUSTAINABILITY

KPMG GLOBAL MINING INSTITUTE

Helping you navigate the mining asset life cycle.

kpmg.com/mining

kpmg.com/miningcommodities

kpmg.com/socialmedia



kpmg.com/app



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2014 KPMG International Cooperative ("KPMG International"), a Swiss entity. Member firms of the KPMG network of independent member firms affiliated with KPMG International. KPMG International provides no client services. No member firm has any authority to obligate or bind KPMG International or any other member firm vis-à-vis third parties, nor does KPMG International have any such authority to obligate or bind any member firm. All rights reserved.

The KPMG name, logo and "cutting through complexity" are registered trademarks or trademarks of KPMG International.

Publication number: 131915 Publication date: December 2014