Southern Copper Corp. (LSE: SCCO)

Equity’s Fair Value (US$ million) 29,383
Share’s Fair Value (US$) 34.58
Recommendation  Neutral
Market Capitalization (US$ million) 27,275
Share’s Market Price (US$) 32.10
Shares Outstanding (million) 849.70
Potential Appraisal 7.7%
ADTV - LTM (US$ million) 76.50
Range 52 weeks 22.34 - 36.87
YTD Change 6.76%
Dividend Yield - LTM 5.00%
Trading LSE - NYSE

Financial Ratios 2011 2012e 2013e
P / E 11.63 11.11 10.92
P / BV 6.76 5.21 4.25
P / EBITDA 6.97 6.88 6.69
Debt / EBITDA 0.70 0.69 0.67
EBITDA/Fin. Expenses 22.14 28.75 29.61
EPS 2.79 2.89 2.94
ROE 59% 53% 43%
ROA 29% 28% 25%

Kalpa Securities SAB reinitiates Southern Copper Corp.’s (Southern) coverage recommending to maintain its shares within a benchmark portfolio for the Peruvian market. Our US$ 34.58 fair value per share exceeds by 7.7% the US$ 32.10 market price as of closing of July 3rd 2012.

We valuate Southern using the Discounted Cash Flow to the Firm methodology. For the valuation, we take into account each of the following operative units:

A. Mining units currently in operations (98.63% of the company’s fair value)

   i) Peruvian operations (43.14% of the company’s fair value).
      We include Toquepala & Cuajone open – pit mines and Ilo Smelting & Refinery.

   ii) Mexican operations (55.49% of the company’s fair value).
      We include Buenavista and La Caridad open pit – mines as well as IMMSA underground mine.

B. Projects (1.37% of the company’s fair value)

   i) Tantahuatay (JV 44.2% with Buenaventura), Pilares and Angangueo.

   ii) Tia Maria, which is not included in our valuation; however, considering the project’s operations initiation in 2015, Southern’s fair value would increase by US$ 2.41 to US$ 36.99.

Investment Thesis: Neutral

i) Exposure to copper.- Southern is a bet on the red metal since more than 75% of its revenues are is represented by copper. In addition, the size of its operations makes it the seventh copper producer worldwide and the third copper producer in Peru. The price of copper has fallen due to fears caused by the decrease in the global demand of the metal, nevertheless, Kalpa SAB estimates a deficit in the supply with regards to the demand that will allow the copper price to stay above US$/Lb 3.4 throughout the analysis period.
ii) Geographical diversification & Vertical integration.- The geographical diversification of mining assets constitutes one of its major advantages over Peru’s main copper mines such as Cerro Verde and El Brocal, among others. Southern has managed to construct world – class mining complexes in Peru as well as in Mexico, allowing the shareholders to diversify operational, political and social risks, among others. Currently, the contribution of Mexican operations represents 52.7% of its income; however, this could change as long as the extension projects are consolidated in Buenavista, allowing the contribution of Mexican operations to reach 59.8% by 2015.

The vertical integration throughout the production line (mining, concentration, smelting and refinery) allows the company to obtain high quality products with better selling prices. Unlike other copper producers, Southern produces fine cathodes, copper anodes and copper wire rods, which generate margins that are higher than those from concentrates. As an example, in June 2012, the cathode price exceeded 5.8% of the concentrate average price.

iii) Low-operating costs mines.- Southern is the low – cost production leader in the mining industry, thanks to the efficiency of its productive processes and the participation of sub – products such as molybdenum, zinc, sulphuric acid and silver. These allowed the company to reduce its cash cost from US$ 1.82 to US$ 0.52 per copper pound in Q1 2012, lower figures than the ones from other world – class mining companies such as Freeport McMoran and BHP Billiton that registered US$ 1.03 and US$ 1.27 cash costs per copper pound, including sub-products, respectively.

iv) Buenavista, a transition to a world class mining deposit.- Buenavista’s start-up represents an important milestone for Southern. Currently, Buenavista represents 26.6% of the income and it promises to become a Southern’s flagship project after completing the construction of the new molybdenum plant for the current concentrator plant, the SX/EW III plant and the new concentrator plant, which will allow the company to increase its production in 2KT Mo, 120KT Cu and 188KT Cu + 2.6KT Mo, respectively. Another important point is that Buenavista’s total reserves (23.6MT Cu) are almost equivalent to Cuaconde and Toquepala’s total reserves, representing 40.23% of Southern’s total reserves.

v) Social Risk.- Southern has been affected by recent social conflicts and protests against mining activities in Peru, threatening the company’s future cash flows.
The projects experiencing social conflicts are the following:

a) **Tia Maria** – US$ 934 million. Currently, Southern is developing a new Environmental Impact Assessment (EIA), in order to initiate the mine construction after its approval.

b) **Toquepala’s extension** – US$ 850 million. To date, the EIA for its construction is pending on approval.

c) **Infrastructure.**- It has 60 years of outstanding experience in the construction industry.

d) **Mining.**- It represents most of the company’s income and it is integrated by Southern and Asarco.

e) **Transport.**- It operates railways reaching an 80% coverage of industrial areas and 71% of the Mexican territory.

vi) **Support from Grupo Mexico.**- Grupo Mexico is Southern’s main shareholder and one of the most important business groups in Mexico, Peru and USA. In addition, it is the world’s third copper producer and leader of its three business divisions:

a) **Mining.**- It represents most of the company’s income and is integrated by Southern and Asarco.

b) **Transport.**- It operates railways reaching an 80% coverage of industrial areas and 71% of the Mexican territory.

c) **Infrastructure.**- It has 60 years of outstanding experience in the construction industry.
Company's description

Southern is an American company based in Delaware – USA, and whose shares list in the New York Stock Exchange (NYSE: SCCO) and in the Lima Stock Exchange (LSE: SCCO).

Southern is an integrated mining company that is focused in the production of metals such as copper, molybdenum, silver, zinc and sulphuric acid, from the exploration & exploitation of mining deposits, to the leaching, concentrating, smelting and refining of metals for its future commercialization.

Since 1999, the company belongs to Grupo Mexico (GMEXICO), through its subsidiary Americas Mining Corporation (AMC, which owns 80.9% of Southern). GMEXICO was created in 1978 and it is focused in three industries: mining, railway transport and infrastructure. It is one of the most important business groups in Mexico, Peru and USA, and it is the world’s third copper producer, the second molybdenum producer and the fourth silver producer.

Operative units

A. Mining Units

i) Peruvian operations: Cuajone, Toquepala and Ilo Smelting & Refinery
ii) Mexican operations: Buenavista, La Caridad and IMMSA.

B. Projects

i) Tantahuatay (JV 44.2% with Buenaventura)
ii) Pilares
iii) Angangueo
iv) Tia Maria

A. Southern's mining units

Chart N° 7: Southern’s mining units

* Operations in San Martin are in stand by due to an indefinite strike.
** Taxco Mexican unit is about to shut down its operations.

Source: Southern

www.kallpasab.com
i) Operations in Peru – 43.14% of the company’s fair value

Peruvian operations are located in southern Peru in a well known copper mining district that is home to the Cerro Verde mine (Freeport McMoran) and Quellaveco project (Anglo American). The Peruvian operations started with Cuajone & Toquepala open – pit mines for its subsequent smelter and refining at Ilo.

a) Cuajone

Cuajone is located in southern Peru, 30 kilometers from the city of Moquegua and 840 kilometers from the city of Lima.

As of December 2011, the mine’s reserves totaled 9.6MT Cu (Proved reserves: 939.5MT @ 0.58% Cu + Probable reserves: 969.5MT @ 0.41% Cu + Leachable material reserves: 13.3MT @ 0.51% Cu)

Cuajone uses an open – pit traditional mining method. In addition, it has a concentrator plant for its production process, from which copper and molybdenum concentrates are obtained. Cuajone’s concentrator plant has an 87K tons per day (TPD) grinding capacity.

Cuajone mine produced 140KT Cu + 2.8KT Mo and 165KT Cu + 5.3KT Mo in 2011 and 2010, respectively. It should be noted that the concentrator plant’s capacity extension (a US$ 300 million investment) necessary to increase the annual production in 22KT Cu + 0.7KT Mo is on track. The project’s conclusion is estimated in Q3 2013.

b) Toquepala

Toquepala deposit is located in the southern Andes Mountains, 28 kilometers from the Cuajone mine, and 870 kilometers from the city of Lima. The mine produces copper and molybdenum.

As of December 2011, the mine’s reserves totaled 16.5MT Cu (Proved reserves: 2,150MT @ 0.56% Cu + Probable reserves: 242MT @ 0.36% Cu + Leachable material reserves: 2,211MT @ 0.16% Cu).

As well as Cuajone mine, it is an open – pit mine. The mining complex is integrated by: (i) Toquepala concentrator plant, with a 60K TPD grinding capacity; and (ii) SX/EW (Solvent extraction and electrowinning), which allows the processing of leaching material from Cuajone & Toquepala and the production of copper cathodes of low grade minerals (<0.4%). The SX/EW plant has a 56KT annual production capacity of copper cathodes.

In 2011 and 2010, Toquepala produced 120.4MT Cu + 5.4MT Mo and 131.5MT Cu + 4.8MT Mo, respectively. In addition, Toquepala is developing its grinding capacity expansion (US$ 850 million investment) from 60K TPD to 120K TPD, which will increase its annual production in 100KT Cu + 3.1KT Mo for Q1 2014.
c) Ilo Smelter & Refinery

The complex is located 17 kilometers from the city of Ilo, 121 kilometers from Toquepala, 147 kilometers from Cuajone and 1,240 kilometers from the city of Lima.

Ilo smelter & refinery produces copper anodes, copper cathodes, precious metals (gold and silver) and sulphuric acid from Toquepala and Cuajone’s concentrates.

ii) Operations in Mexico – 55.49% of the company’s fair value

Mexican operations are located throughout the country, as shown in Chart 9. The Mexican mining units are detailed as it follows:

a) Buenavista
b) La Caridad
c) IMMSA
- Charcas
- Santa Bárbara
- Santa Eulalia
- San Martín
- Taxco
- San Luis Potosí Complex

a) Buenavista (Ex Cananea)

The mining deposit is located 40 kilometers south of the Mexican and American border, in the outskirts of the Cananea city. Buenavista deposit is considered one of the world’s greatest copper porphyries and it is North America’s oldest copper mine currently in operations (it has operations since 1989). In 1990, Grupo Mexico purchased the property through a public auction for US$ 475 million.

Buenavista has reserves for 23.7MT Cu (Proved reserves: 2,227MT @ 0.56% Cu + Probable reserves: 826.5MT @ 0.50% Cu + Leachable material reserves: 3,237MT @ 0.22% Cu).

Buenavista mining unit is integrated by: (i) an open – pit copper mine; (ii) a concentrator plant with a 76K TPD grinding capacity; and, (iii) two SX/EW plants, with a 54.8K TPY combined capacity.

Between July 2007 and June 2010, the operations at Buenavista were in standby due to labor strikes (except for short term periods). The mine restoration was initiated in Q3 2010 and subsequently, the SX/EW plants and the concentrator plant reached full capacity in Q4 2010 and Q2 2011, respectively.

Subsequent to the mine recovery, Southern restarted investment projects in this property. Most notable are:

- **New concentrator and molybdenum plant II** (US$ 1,400 million investment) that will increase the annual production in 188KT Cu + 2.6KT Mo. Expected to be in production by 2015.

- **New molybdenum plant I** (US$ 38.2 million investment) that will produce 2KT Mo per year at full capacity. Its culmination is expected by Q1 2013.

- **New SX/EW plant** (US$ 444 million investment) with a 120K TPY estimated capacity. Expected to be in production by Q3 2013.
b) La Caridad

La Caridad mining complex is located 23 kilometers southeast the city of Nacozari, in the state of Sonora, Mexico. La Caridad is a copper and molybdenum porphyry deposit. The mine’s exploitation is carried out through an open – pit method. It is important to highlight that the mine is located in the top of a mountain which grants advantages such as a low strip ratio, a natural drainage for the pit and short distances for mineral and overburden transport.

The mine’s reserves total 8.8MT Cu (Proved reserves: 2,508 MT @ 0.26% Cu + Probable reserves: 508.3MT @ 0.23% Cu + Leachable material reserves: 747.1 MT @ 0.16% Cu).

The mining complex consists of an open – pit mine, a concentrator plant, a smelting plant, a copper refinery, a precious metal refinery, a wire rod plant, an SX/EW plant, a quicklime plant (calcium oxide), and two sulphuric acid plants.

Currently, the concentrator plant and the SX/EW plant operate at a 90K TPD and 21.9K TPY, respectively. It should be noted that in 2012 a 10K meters exploration program is being developed in order to define the best Cu – Mo mineralization continuity.

c) IMMSA Mexican unit (Underground extraction poly – metallic division)

- Charcas

Charcas mining complex is located 111 kilometers north of the city of San Luis Potosi, Mexico. The mining complex is integrated by: (i) three underground mines: San Bartolo, Rey – Reyna and La Aurora and (ii) a flotation plant that produces zinc, lead and copper concentrates. It is important to highlight that Charcas is Mexico’s largest zinc mine and it is characterized by its low operation costs and its good mineral grades. The complex’s mines are poly – metallic (Zn – Pb – Cu) and they have a flotation plant with a 4.1K TPD processing capacity.

- Santa Barbara

Santa Barbara mining complex is located 26 kilometers southeast of the city of Hidalgo del Parral, Chihuahua – Mexico. Santa Barbara is a poly – metallic complex (Zn – Pb – Cu) whose mineral is extracted and processed in a flotation plant that has a 5.7K TPD capacity.

- Santa Eulalia

Santa Eulalia mining district is located in the central part of the state of Chihuahua, Mexico. Santa Eulalia is a poly – metallic deposit (Zn – Pb – Cu), and it is operated through underground exploitation. The flotation plant has a 1.5K TPD processing capacity.

As of May 2010, the mine suspended its operations due to a flood caused by water pressure excess which broke the area’s rehabilitation dam. Currently, the rehabilitation works are on track totaling more than US$ 21.5 million as of December 2011. Its operation’s start up is expected for Q3 2012.

- San Martin – Currently in stand by

San Martin mining complex is located in the state of Zacatecas, Mexico. The complex includes: (i) an underground mine, (ii) a flotation plant (4.4K TPD capacity); and, (iii) a concentrator plant (4.4K TPD capacity). As of July 2007, the mine is on indefinite strike.

- Taxco – Currently shutting down its operations

Taxco mining complex is located in the state of Guerrero, Mexico. Taxco consists of: (i) three Zn – Pb underground mines: San Antonio, Guerrero and Remedios; (ii) a flotation plant (2K TPD capacity); and, (iii) a concentrator plant (2K TPD milling capacity). Since July 2007, the mine has been on strike and it is currently shutting down its operations.
- **San Luis Potosi Complex**

  The complex is located 113 kilometers from Charcas, in the city and the state of San Luis Potosi, Mexico. It has an electrolytic zinc refinery that produces special high grade zinc (99.995% of zinc), high grade zinc (more than 99.9% of zinc) and zinc alloys with aluminum, lead, copper and magnesium. The production of silver and gold refined is done through an outsourcing service by Industrias Peñoles.

**B. Projects**

Southern has projects to improve the efficiency and the productivity of its plants, as well as projects for new mines that will increase the production and life of mine (LOM) of its mining units. For the analysis, we have classified the projects in: (i) Extension & expansion projects; and, (ii) New projects in development.

**i) Extension & expansion projects (included in the mining units)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Mine</th>
<th>Description</th>
<th>Investment US$ MM</th>
<th>∆ Annual Production</th>
<th>Start of operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERU</td>
<td>Cuajone Toquepala</td>
<td>Concentrator expansion</td>
<td>300</td>
<td>22KT Cu + 0.7KT Mo</td>
<td>Q3 2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concentrator expansion</td>
<td>850</td>
<td>100KT Cu + 3.1KT Mo</td>
<td>Q1 2014</td>
</tr>
<tr>
<td>MEXICO</td>
<td>Buenavista</td>
<td>New Molybdenum plant</td>
<td>38</td>
<td>2KT Mo</td>
<td>Q1 2013</td>
</tr>
<tr>
<td></td>
<td>Buenavista</td>
<td>New SX/EW III plant</td>
<td>444</td>
<td>120KT Cu</td>
<td>Q3 2013</td>
</tr>
<tr>
<td></td>
<td>Buenavista</td>
<td>New concentrator &amp; Molybdenum II plant</td>
<td>1400</td>
<td>188KT Cu + 2.6KT Mo</td>
<td>Q2 2015</td>
</tr>
</tbody>
</table>

Source: Kallpa SAB

**ii) New projects in development**

We include the following projects within our valuation.

- **a) Tantahuatay** (JV with Buenaventura).- Southern has a 44.2% stake in Tantahuatay, the other percentage belongs to Buenaventura. Located in the department of Cajamarca, the project initiated operations in August 2011 and produced 46.2K Oz Au + 260K Oz Ag in 2011. The project’s annual production is estimated at 90K Oz Au + 425K Oz Ag throughout its 5 years LOM.

- **b) Anguangueo.**- Southern owns 100% of this project which is located in Michoacan, Mexico. It is estimated a US$ 131 million investment for the implementation of a poly –metallic mine and a 2K TPD concentrator plant for an estimated annual production of 11KT Cu + 4.5M Oz Ag + 22KT Zn. We estimate the project’s to be operational by late 2014.

- **c) Pilares.**- Southern owns 100% of this project which is located in Mexico at a close distance from La Caridad mine. Currently, the mine has resources for 43.4MT @ 0.789% Cu and 0.077% in copper sulphides and copper oxides. It is expected to transport the mineral produced in Pilares open – pit mine for its concentration in La Caridad mining unit. The project’s annual production is estimated in 40KT Cu. We estimate that the project should begin operations by 2014.

- **d) Tia Maria.**- Southern owns 100% of this project which is located in the department of Arequipa, Peru. Due to recent anti-mining protests carried out against the project’s development, Management is seeking the elaboration of a new Environmental Impact Assessment (EIA) that includes changes regarding to the usage of the communities’ resources (specially water) for the construction of the project (See social risk section). Currently, Tia Maria’s development represents a US$ 934 million investment for the implementation of an open – pit mine that will add annually 122KT Cu to Southern’s production throughout the project’s 18 years life of mine. It should be noted that we do not include this project into Southern’s valuation. However, we highlight that if the project is developed in 2015, it will add US$ 2,500 million to Southern’s equity. In this case, our fair value would increase by US$ 2.41 to US$ 36.99 per share.
Valuation

We valuate Southern using the Discounted Cash Flow to the Firm methodology @ 9.9%. It should be noted that the valuation’s analysis period correspond to 2012 – 2016. From 2017, we assume a perpetual flow with a 2.5% free cash flow’s constant growth.

Southern, like every mining company, has a limited number of reserves (more than 80 years life of mine in proved and probable reserves – one of the greatest deposits among worldwide copper companies); however, we assume a perpetual flow since we believe that Southern has a high exploration potential on its current mining units as well as on its projects in development. In order to justify this potential, we include into the perpetual flow a US$ 50 million exploration investment that will allow the company to carry out new exploration works in order to ensure Southern’s production continuity.

The valuation’s main assumptions are detailed below:

i) Production

Southern has copper as a main production metal. It should be noted that it maintains a good sub – product structure with sub – products such as molybdenum, zinc, sulphuric acid, silver and gold among others. Our copper and molybdenum production estimations for 2012 – 2015, considering the Peruvian and Mexican operations as well as the execution of its project’s extensions are the following:

![Chart N° 10: Copper and Molybdenum production](image1)

Source: Southern, Kallpa SAB

![Chart N° 11: Copper production by mining unit - 2011](image2)

Source: Southern, Kallpa SAB

ii) Price

As it was mentioned before, the main metal within Southern’s portfolio is copper. Although there are good expectations in regard with the recovery of the red metal in the long term, there is still uncertainty in regard to the copper demand. As an example, for copper, it is expected that the demand will grow between 2 and 3% for 2012; while the supply will grow only 0.4%. However, currently the copper price responds to an unfavorable global economic conjuncture, as a consequence of the European crisis, a potential deceleration in China and America’s slow economic recovery. Given this, we estimate that the price of copper will fluctuate between US$ 8,300 and US$ 8,500 per ton for the next two years and reach US$ 7,500 – US$ 7,800 throughout the analysis period. However, we are conservative and we use a US$ 6,740 per ton long term price, assuming a 10% penalty over the last price range previously mentioned.

The main sub – products’ quotations used in this valuation are shown below:

<table>
<thead>
<tr>
<th>Table N° 2: Southern’s main sub-products - Prices</th>
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</thead>
<tbody>
<tr>
<td><strong>Molybdenum (US$/TM)</strong></td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>24,052.43</td>
</tr>
<tr>
<td><strong>Zinc (US$/TM)</strong></td>
</tr>
<tr>
<td><strong>Silver (US$/Oz)</strong></td>
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</table>
In addition, copper is Southern’s main sales component with a 78% stake towards 2015 as shown below:

### iii) Operating costs

Southern is known for its low operative cost mining units due to its efficiency and to the vertical integration of its production processes as well as to the presence of sub – products (molybdenum, silver, zinc etc.) in the copper concentrate production. This is the case of Peruvian operations (Cuajone & Toquepala) and Mexican operations (Buenavista & La Caridad), whose sub – product’s production contributed to decrease the cash cost in US$ 1.34 and US$ 1.24 per pound in 2010 and 2011, respectively. It should be noted that in the last years, the mining industry has registered inflationary pressure in operative costs as a consequence of higher power and energy costs (37% of Southern’s costs), payroll costs (14% of Southern’s costs), environmental costs, currency exchange costs, among others. We assume that the implementation of extension projects (expansions and new concentrator plants) will contribute to counteract partially the inflationary pressure in operative costs. In line with the previously mentioned, we assume a 2% annual growth (cost inflation) in Southern’s operative costs as long as the extensions in Toquepala and Buenavista are on track, which will add economies of scale to the cost structure.

### iii) Operational expenses

Operative expenses have remained stable in regard to Southern’s sales, fluctuating between 1.8 and 2% of the company’s sales. We have maintained that behavior for the operations expenses towards 2016.

### iv) CAPEX

For our valuation, we consider two kinds of CAPEX: a) Maintenance CAPEX and b) Expansion CAPEX

**a) Maintenance CAPEX.** - Under an organic growth and during our analysis period, we have considered a maintenance CAPEX that is equivalent to 3.5% of Southern’s sales. This way, the maintenance CAPEX fluctuates between US$ 238 and US$ 350 million for the analysis period.

**b) Expansion CAPEX.** - We consider the execution of expansion projects and new mining units (See the Projects section). Southern maintains high investments in capital in order to improve the efficiency of its productive processes and to extend its mining units’ life of mine.
The total CAPEX expected towards 2015 totals US$ 4.2 billion, as shown below.

### v) Project’s funding

As it was previously mentioned, Southern has important investments in order to improve its operation's efficiency and to increase its future production. Southern will fund its projects (expansions + new projects) with current cash and cash flows that are expected in the analysis period. However, the high investments will decrease the dividends for the shareholders. It should be noted that we do not consider in the model that Southern will fund its projects with debt; nevertheless, this is possible as the company wants to maintain its investments without strongly reducing the dividend policy towards its shareholders.

### vi) Discount rate

We value Southern using the Discounted Cash Flow to the Firm methodology @ 9.9%. It should be noted that the analysis period correspond to 2012 – 2016. From 2017 we assume a perpetual flow with a 2.5% free cash flow’s constant growth. The structure for the discount rate’s calculation is described below.
Scenario analysis

In the following analysis, we evaluate our fair value with changes in the assumptions using the following scenarios:

i) **Base scenario – FV: US$ 34.58**

In this base scenario, we estimate the execution of expansion projects and the development of new projects in accordance with the guidance prepared by Southern, without taking into account Tia Maria’s implementation. In addition, the long term copper price is US$ 3.06 per Lb. Therefore, we obtain a US$ 34.58 fair value per share.

ii) **Pessimistic Scenario – FV: US$ 21.11**

Under this pessimistic scenario, we estimate a fall in the long term copper price to US$ 2.50 per Lb before a possible global deceleration and contraction in the demand for the red metal. Moreover, social conflicts in Peru suspend Toquepala’s expansion. Thus, we obtain a US$ 21.11 fair value per share.

iii) **Optimistic Scenario – FV: US$ 46.84**

In this optimistic scenario, the expansion projects are fully executed and it takes into account Tia Maria’s implementation. In addition, the long term copper price reaches US$ 3.50 per Lb. Thus, we obtain a US$ 46.84 fair value per share.

Chart N° 17: Scenario Analysis

Source: Kallpa SAB
Social risk-

**Tía Maria**

The project is located in the district of Cocachacra, province of Islay, Arequipa. It is an exploitation and an oxide copper processing project whose exploitation will be carried out through an open-pit mine. The project has a 260M Lb estimated annual production of SX/EW copper cathodes and it has a US$ 1,000 million estimated investment.

In 1994, Teck Cominco started up exploration programs in the project, followed by Phelps Dodge and RTZ in 1995 and 1999, respectively.

In 2003, Southern initiated a more detailed exploration program in the project, whose main result was the discovery of La Tapada in 2006, the first hidden porphyry deposit discovered in Peru.

In 2007, Southern confirmed its interest on investing in the project for future copper exploitation. Subsequently, in 2008, it initiated the Environmental Impact Assessment’s (EIA) development and it committed a US$ 400 million investment in machinery and equipment.

In 2009, the EIA’s approval was affected due to most of Cocachacra community’s inhabitants were against the project. Subsequently, in 2010, several protests were carried out in the community preventing dialogue committees and public hearings with the fear that the mining project might affect the community’s water supply. One of Southern’s alternatives was using underground water from the Tambo river, which would supply the mine with enough water without affecting neither the river nor the agriculture. Another alternative was using water from underground rivers through the construction of a dam. However, the inhabitants rejected both alternatives.

In 2011, Southern submitted a review procedure to the Resolución Directoral 169 -2011 (Directorial Resolution 169 – 2011) in order to insist with the EIA’s approval; however, new protests arose and the dialogue for Tía Maria got stuck.

Currently, Southern is developing the new EIA necessary to generate a positive impact in the communities, in order to obtain the approval of the Ministry of Energy and Mines (MINEM) to starts Tía Maria’s project. In this EIA, Southern proposes the usage of sea water as a solution for the water supply problem. It is important to highlight the equipments acquired for Tía María have been assigned to Cuajone and Toquepala mines. In addition, the SX/EW plant has been assigned to Buenavista. Southern expects that the project will start its operations in 2015.

**Toquepala**

The project consists in extending the concentrator plant through increasing the 60K TPD grinding capacity to 120K TPD, which will increase the annual production by 100KT Cu + 3.1KT Mo.

Currently, the EIA for its implementation is pending approval. Southern submitted the EIA in June 2011, which requires a public hearing as part of the approval process. The first hearing was carried out in September 2011; however, it was voided due to protests and riots. Consequently, MINEM will have to convoke a new public hearing as long as the conditions are favorable for its execution. To date, there is planned a meeting between Tacna’s regional Government and Southern’s Management with a date yet to be defined.
Analysis of multiples

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</tr>
</thead>
<tbody>
<tr>
<td>Southern Copper Corp.</td>
<td>EE. UU.</td>
<td>27,275</td>
<td>11.63</td>
<td>11.11</td>
<td>7.46</td>
<td>7.37</td>
<td>6.76</td>
<td>59.1%</td>
<td>28.9%</td>
</tr>
<tr>
<td>Freeport-McMoRan Copper &amp; Gold</td>
<td>EE. UU.</td>
<td>33,418</td>
<td>8.19</td>
<td>8.97</td>
<td>4.26</td>
<td>3.96</td>
<td>2.07</td>
<td>32.4%</td>
<td>14.8%</td>
</tr>
<tr>
<td>BHP Billiton Ltd</td>
<td>Australia</td>
<td>167,407</td>
<td>7.66</td>
<td>9.75</td>
<td>5.37</td>
<td>4.83</td>
<td>2.75</td>
<td>44.9%</td>
<td>24.7%</td>
</tr>
<tr>
<td>Anglo American PLC</td>
<td>UK</td>
<td>46,991</td>
<td>6.63</td>
<td>8.23</td>
<td>4.55</td>
<td>4.39</td>
<td>1.14</td>
<td>16.8%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Xstrata PLC</td>
<td>UK</td>
<td>37,990</td>
<td>6.42</td>
<td>8.22</td>
<td>4.76</td>
<td>4.16</td>
<td>0.86</td>
<td>13.6%</td>
<td>7.9%</td>
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<tr>
<td>Rio Tinto PLC</td>
<td>UK</td>
<td>95,618</td>
<td>16.43</td>
<td>7.26</td>
<td>4.09</td>
<td>4.27</td>
<td>1.77</td>
<td>10.5%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Vale SA</td>
<td>Brazil</td>
<td>108,025</td>
<td>6.23</td>
<td>5.71</td>
<td>4.90</td>
<td>4.88</td>
<td>1.36</td>
<td>29.6%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Glencore International PLC</td>
<td>UK</td>
<td>32,991</td>
<td>6.66</td>
<td>7.17</td>
<td>16.24</td>
<td>14.19</td>
<td>1.13</td>
<td>16.6%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Antofagasta PLC</td>
<td>UK</td>
<td>17,618</td>
<td>14.25</td>
<td>11.61</td>
<td>5.41</td>
<td>5.14</td>
<td>2.84</td>
<td>20.0%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td>9.34</td>
<td>8.67</td>
<td>6.34</td>
<td>5.91</td>
<td>2.30</td>
<td>27.1%</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

Source: Bloomberg, Kallpa SAB

Chart N°18: P/E vs. EV/EBITDA - Peers companies

Chart N°19: P/BV vs. EV/EBITDA - Peers companies

Source: Bloomberg, Kallpa SAB
## Financial Summary

### Estimated production

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012e</th>
<th>2013e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper - KT</td>
<td>478.9</td>
<td>590.6</td>
<td>601.3</td>
<td>601.3</td>
</tr>
<tr>
<td>Molybdenum - KT</td>
<td>20.7</td>
<td>18.6</td>
<td>17.0</td>
<td>19.0</td>
</tr>
<tr>
<td>Zinc - KT</td>
<td>99.2</td>
<td>85.2</td>
<td>92.4</td>
<td>98.0</td>
</tr>
<tr>
<td>Silver - M Oz</td>
<td>14,088</td>
<td>15,877</td>
<td>14,200</td>
<td>14,200</td>
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</table>

### Prices

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012e</th>
<th>2013e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper - US$/TM</td>
<td>7,543.0</td>
<td>8,813.2</td>
<td>8,357.0</td>
<td>8,458.0</td>
</tr>
<tr>
<td>Molybdenum - US$/TM</td>
<td>33,341.3</td>
<td>33,708.0</td>
<td>30,049.0</td>
<td>36,927.4</td>
</tr>
<tr>
<td>Zinc - US$/TM</td>
<td>2,158.5</td>
<td>2,192.7</td>
<td>2,121.0</td>
<td>2,324.0</td>
</tr>
<tr>
<td>Silver - US$/Oz</td>
<td>20.2</td>
<td>35.3</td>
<td>31.6</td>
<td>35.4</td>
</tr>
</tbody>
</table>

### Profit & Loss - US$ million

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012e</th>
<th>2013e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Revenues</td>
<td>5,150</td>
<td>6,819</td>
<td>6,802</td>
<td>7,147</td>
</tr>
<tr>
<td>Cost of Sales</td>
<td>-2,129</td>
<td>-2,763</td>
<td>-2,676</td>
<td>-2,901</td>
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<tr>
<td>Gross Income</td>
<td>3,021</td>
<td>4,056</td>
<td>4,126</td>
<td>4,246</td>
</tr>
<tr>
<td>Sales and Adm. Expenses</td>
<td>-382</td>
<td>-393</td>
<td>-448</td>
<td>-507</td>
</tr>
<tr>
<td>Exploration Expenses</td>
<td>-34</td>
<td>-38</td>
<td>-33</td>
<td>-33</td>
</tr>
<tr>
<td>Operative Income</td>
<td>2,604</td>
<td>3,625</td>
<td>3,645</td>
<td>3,706</td>
</tr>
<tr>
<td>Net Interest Expenses</td>
<td>-173</td>
<td>-177</td>
<td>-138</td>
<td>-138</td>
</tr>
<tr>
<td>Income before Taxes</td>
<td>2,431</td>
<td>3,449</td>
<td>3,507</td>
<td>3,568</td>
</tr>
<tr>
<td>Taxes</td>
<td>-466</td>
<td>-1,104</td>
<td>-1,052</td>
<td>-1,070</td>
</tr>
<tr>
<td>Net Income</td>
<td>1,771</td>
<td>2,344</td>
<td>2,455</td>
<td>2,498</td>
</tr>
<tr>
<td>Shares Outstanding (million)</td>
<td>850</td>
<td>841</td>
<td>850</td>
<td>850</td>
</tr>
<tr>
<td>Earnings per Share</td>
<td>1.84</td>
<td>2.79</td>
<td>2.89</td>
<td>2.94</td>
</tr>
<tr>
<td>Dep. &amp; Amort.</td>
<td>282</td>
<td>288</td>
<td>317</td>
<td>369</td>
</tr>
<tr>
<td>EBITDA</td>
<td>2,886</td>
<td>3,914</td>
<td>3,962</td>
<td>4,075</td>
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</table>

### Margins

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012e</th>
<th>2013e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Margin</td>
<td>59%</td>
<td>59%</td>
<td>61%</td>
<td>59%</td>
</tr>
<tr>
<td>Operative Margin</td>
<td>51%</td>
<td>53%</td>
<td>54%</td>
<td>52%</td>
</tr>
<tr>
<td>Net Margin</td>
<td>30%</td>
<td>34%</td>
<td>36%</td>
<td>35%</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>56%</td>
<td>57%</td>
<td>58%</td>
<td>57%</td>
</tr>
</tbody>
</table>

### Ratios

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012e</th>
<th>2013e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt/EBITDA</td>
<td>96%</td>
<td>70%</td>
<td>69%</td>
<td>67%</td>
</tr>
<tr>
<td>EBITDA/Interest Expenses</td>
<td>17</td>
<td>22</td>
<td>29</td>
<td>30</td>
</tr>
</tbody>
</table>
Appendix - Disclaimer

Analyst's certification

The analyst that prepared this report hereby certifies that: i) the opinions and views expressed in this valuation report, in regard with the issuer and with the company's overview, reflected his/her personal opinion and ii) No part of his/her salary compensation was, is or will be related directly or indirectly to the recommendations expressed in this report.

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Definition of qualification ranges

Kallpa Securities SAB has 5 qualification ranges: Overweight +, Overweight, Hold, Underweight and Underweight -. The analyst will assign the coverage one of these ranges.

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Range</th>
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</thead>
<tbody>
<tr>
<td>Underweight -</td>
<td>&lt; -30%</td>
</tr>
<tr>
<td>Underweight</td>
<td>-30% to -15%</td>
</tr>
<tr>
<td>Neutral</td>
<td>-15% to 0%</td>
</tr>
<tr>
<td></td>
<td>+0% to 15%</td>
</tr>
<tr>
<td></td>
<td>+15% to +30%</td>
</tr>
<tr>
<td></td>
<td>+30%</td>
</tr>
<tr>
<td></td>
<td>+30%</td>
</tr>
</tbody>
</table>

The range assigned to each company covered by the analyst in these reports is based on the analysis/monitoring Kallpa Securities SAB has been developing for the company. In some cases, the analyst can express his/her short-term points of view to traders, vendors and some Kallpa Securities SAB's clients but this point of view may differ in time by market volatility and other factors.

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