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CREDIT OPINION
13 December 2017

Update

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RATINGS

Volcan Compania Minera S.A.A. y Subsidiarias

Domicile	Peru
Long Term Rating	Ba3
Type	LT Corporate Family Ratings
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Volcan Compania Minera S.A.A. y Subsidiarias

Update to credit analysis

Summary

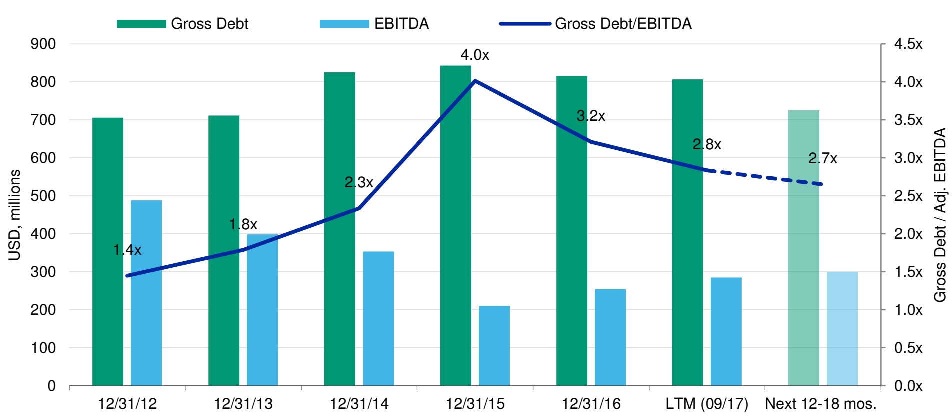
Volcan's Ba3 ratings reflect the company's competitive cost position (first-quartile C1 zinc and silver cash costs), its operational diversity in terms of metals produced and number of mines (12 mines distributed in five operating units), and the company's position as a leading producer of zinc, silver and lead globally. We expect that metals prices sustained close to 2017 averages, with material further upward price moves not anticipated other than in response to disruption events, which, combined with ongoing cost reductions, will continue to support gradual deleveraging and a strengthening credit profile.

Following the positioning of Glencore International AG (Baa2 stable) as a controlling shareholder in November 2017, we expect credit positive developments through 2018 as Volcan will benefit from its strong credit profile, industry expertise and financial strength. The company's rating is constrained by its reliance on short-term debt and earnings volatility given exposure to commodity prices. Volcan's low geographic diversity and its relatively modest revenue size, as compared to global peers, are further constraints.

Exhibit 1

A combination of steady EBITDA generation and debt reduction will drive a gradual decline in leverage

Evolution of gross debt to EBITDA (as adjusted)



All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Moody's forecast for the next 12-18 months is Moody's opinion and does not represent the views of the issuer. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.
Source: Moody's Financial Metrics™ (historical); Moody's Investors Service (forecast)

Credit strengths

» Leading producer of zinc, lead and silver globally, with good diversity of metals and mines

» Competitive cost position within the first quartile of the cash cost curve (for zinc and silver)

» Cost reduction efforts and more favorable market fundamentals support deleveraging

Credit challenges

» Relatively modest revenue size as compared to global peers and low geographic diversity

» Exposure to commodity prices creates earnings volatility

» Reliance on short-term debt leads to tight liquidity

Rating outlook

The stable outlook reflects our view that Volcan will be able to improve its liquidity and sustain adequate credit metrics. As well, it incorporates the expectation that zinc market fundamentals will remain solid, which will allow Volcan to generate positive free cash flows and reduce short term debt overtime. The stable outlook also considers that Volcan will target its pipeline of exploration projects, maintaining its discipline regarding costs, capex and dividend distribution. The outlook assumes that should prices retreat, the company will make the necessary adjustments in its operations and capital spending to maintain its financial profile.

Factors that could lead to an upgrade

An upward rating movement would require Volcan to improve its liquidity cushion by reducing short-term debt levels, maintain its competitive cost position and continue to invest for growth without jeopardizing its liquidity and leverage metrics. To the extent that Volcan is able to maintain a sound liquidity profile, to reduce its reliance on short-term debt and to achieve cash flow metrics such as (CFO-Dividends)/debt above 20% on a sustained basis, the ratings could be positively impacted.

Factors that could lead to a downgrade

Ratings could be negatively impacted if profitability and cash flow from operations materially weaken. A marked deterioration in the company's liquidity position could also precipitate a downgrade. Specifically, if EBIT margin falls below 6%, with negative free cash flow, ratings could be downgraded. Negative pressure could also result from increase in debt levels leading to total debt to EBITDA above 4x on a sustained basis.

Key indicators

Exhibit 2
Volcan Compania Minera S.A.A. y Subsidiarias

US Millions	Dec-12	Dec-13	Dec-14	Dec-15	Dec-16	LTM (Sep-17)	Next 12-18 months
Revenue	$ 1,178	$ 1,163	$ 1,042	$ 795	$ 822	$ 866	$800-$870
EBIT Margin (3 Year Avg)	36%	32%	25%	17%	14%	17%	19%-21%
EBIT/Avg Tang Assets (3 Year Avg)	32%	24%	14%	8%	5%	6%	7%-8%
EBIT / Interest Expense (3 Year Avg)	23.7x	20.0x	9.9x	5.9x	3.5x	3.7x	4.0x-5.0x
Debt / EBITDA (3 Year Avg)	0.7x	1.0x	1.8x	2.5x	3.0x	2.8x	2.5x-2.8x
Debt / Book Capitalization	32%	30%	33%	42%	39%	37%	32%-34%
(CFO - Dividends) / Debt (3-year Average)	66%	48%	24%	23%	22%	25%	22%-25%

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Moody's forecast for the next 12-18 months is Moody's opinion and does not represent the views of the issuer. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.
Source: Moody's Financial Metrics™

Profile

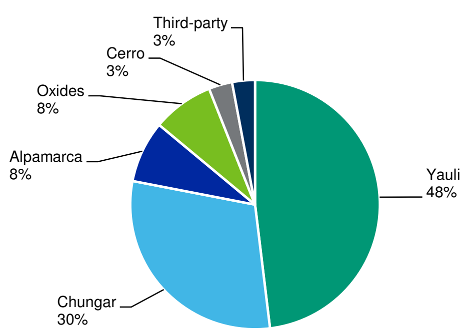
Volcan is a Peruvian mining company with exploration, mining, concentrating and commercial operations. It primarily produces zinc and lead concentrate and some copper concentrate, all with high silver content. The company operates through five operational complexes with a total of 12 mines, 7 concentrate plants and one leaching plant for silver oxides production. All of Volcan´s operations are located in Peru (A3 stable) and, for the LTM ended September 2017, it reported revenues of USD 866 million. Volcan is a holding company listed in the stock exchanges of Lima and Chile and in Madrid's Latibex. As of November 2017, Glencore International AG (Baa2 stable) has a controlling stake of 55% in class A voting shares, equivalent to a 23.3% economic interest in Volcan.

Detailed credit considerations

Diversity of metals and mines and low cost position support business model

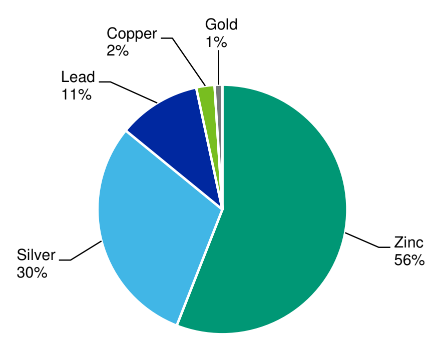
Volcan is the leading producer of zinc, silver and lead in Peru, and a major player for these metals globally. Moreover, Volcan has a favorable mix of metals, which provides good diversification and low price correlations in a normalized environment. Volcan also enjoys good operational diversity, with five main operational units at Yauli, Chungar, Cerro de Pasco, Oxides and Alpamarca-Rio Pallanga, in the central region of Peru. It produces its metals from 12 different mines and also has seven concentrate plants and one leaching plant for silver oxides production.

Exhibit 3
Sales by Origin for the 9M 2017



Source: Volcan quarterly MD&A

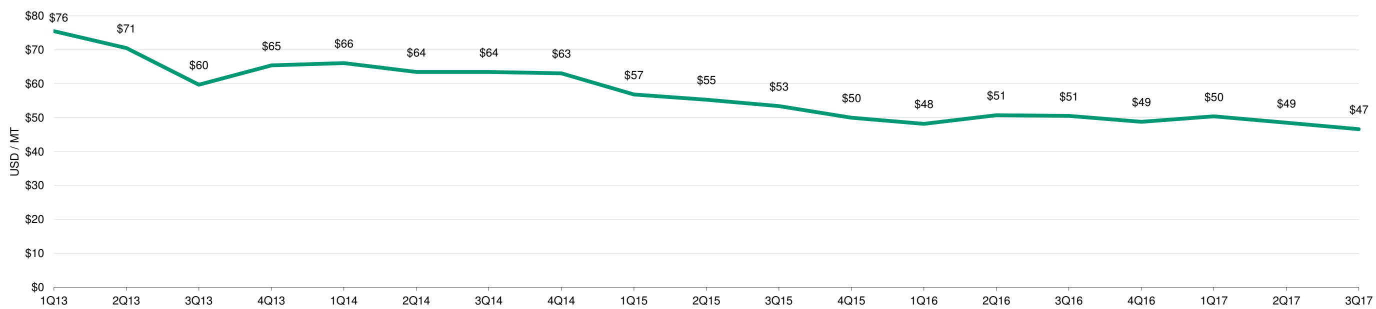
Exhibit 4
Sales by Product for the 9M 2017



Source: Volcan quarterly MD&A

Volcan's credit metrics posted a significant recovery throughout 2016 and the last twelve months as of September 2017, reflecting a combination of higher zinc prices and important reduction in costs over time. Efficiencies have been gained through multiple channels, including: mine optimization, review of scope and number of contractors, rationalization of inputs/raw materials (including energy) and the ramp-up of low-cost units, such as the oxide plant and Alpamarca. Volcan will continue to invest in ongoing cost reduction through logistics/transportation and by targeting exploration and mine development following subdued investments in 2015-16 during the market downturn. Adjusted EBITDA margins increased to 32.8% during the last twelve months ended September 2017 from 30.9% in 2016 and 26.4% in 2015. At the same time, the unit cost of production has demonstrated a steady decline, falling by 26% since year end 2014.

Exhibit 5
Unit cost of production demonstrates sustained downward trend in line with greater operational efficiencies
Evolution of the unit cost of production



Source: Volcan quarterly MD&A

Steady EBITDA generation in combination with a focus on debt reduction will support deleveraging

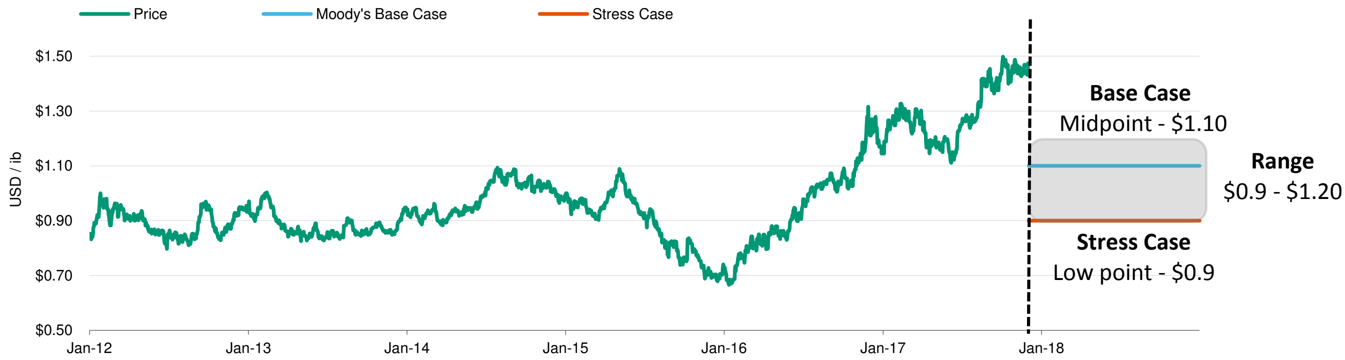
As cost reduction efforts and more favorable market fundamentals support stable EBITDA generation, we believe Volcan will focus excess cash toward debt reduction and resumption of investments. In the low price environment observed in 2015/early 2016, Volcan suspended expansion/exploration investments to preserve liquidity, and after reaching a low of close to USD 120 million in capex in 2016, investments will gradually increase in coming years as the company resumes exploration projects essential to its long-term operational viability. As a result, we do not anticipate robust positive free cash flow through 2019; however, we do expect the company to focus on some debt reduction, in particular short-term instruments, which will keep leverage in the range of 2.5x-2.8x over the next 12-18 months.

Although exposure to commodity prices creates earnings volatility, current market fundamentals are supportive of zinc prices

Higher sustained zinc prices through 2017 reflect positive market fundamentals following the closure of mines leading to a decline in production. At the same time growth in zinc consumption remains supported by infrastructure spending, particularly in China (which accounts for nearly half of global demand for zinc) as well as automotive industry growth. Mined zinc's deficit position also follows the end of mining at MMG's (unrated) Century mine and other curtailments and refined zinc inventories continue to decline on the LME as consumption has exceeded metal production, according to the International Lead and Zinc Study Group. The mine closures at MMG's Century mine in Australia and Vedanta's Lisheen mine in Ireland, took a combined output of around 600 kt out of the market as well as supply curtailments from major players such as Glencore, which removed about 500kt of zinc concentrate. Since 2013, more than 1 million tonnes of zinc production has gone offline. In addition, we could see further mine closures in China (about 40% of global zinc supply) for environmental reasons. However, higher zinc prices can accelerate expansions and new capacity, including MMG's Dugald River project in Australia, and potential restarts of closed mines in China and elsewhere could limit further upward price potential in 2018.

As of early December 2017, zinc prices had reached levels close to 26% above year-end 2015 (USD 1.47/lb versus USD 1.17/lb) and more than double the price reached at year end 2015 (USD 0.73/lb). On average, zinc prices were 40% higher in 2017 than in 2016 year to date as of early December.

Exhibit 6
Zinc price evolution with Moody's forecast price sensitivities (USD/lb)



Source: Moody's Investors Service and LME

Reserve position aided by valuable exploration properties and expansion projects

Volcan has a reserve position of approximately 8 years at 2016 production levels - and close to 20 years considering reserves and inferred resources. However, the company holds significant exploration properties in mineral rich locations and there is a high potential to improve over time as long as the company continues its exploration activities and strategic investments.

Exploration projects comprise brownfield and greenfield explorations distributed along the existing mining units (Yauli, Chungar, Oxides, Cerro de Pasco and Alpamarca), focusing on Yauli and Chungar, which currently account for 78% of Volcan's revenues. Volcan is also targeting copper projects, which would allow for further diversification. However, expansions will be analyzed in a selective manner and dependent upon market conditions. The company completed its large expansion projects, which include the Alpamarca-Río Pallanga mining unit, and an oxide-treatment plant at Cerro de Pasco, in 2014, and has more recently concluded the investment in the Rucuy hydroelectric plant, which allows Volcan to sell energy in the grid and at the same time maintain self-sufficiency for close to half of its energy needs, at a much lower cost.

Glencore's increased participation in Volcan is credit positive

In November 2017 Glencore raised its participation in Volcan to a controlling 55% stake in class A voting shares, from 18% previously. Taking into consideration the non-voting class B shares, Glencore now has a 23.3% economic interest in Volcan. As the controlling shareholder, Glencore's strong credit profile, industry expertise, and financial strength will likely result in synergies and other operational benefits, the credit implications of which will become more evident in 2018 once there is more visibility on potential business and strategical plans associated with Glencore's influence.

Glencore is a leading publicly listed natural resources group, based in Switzerland, that combines a large and well-diversified portfolio of mining assets with an extensive third party marketing business. The industrial activities of the group are organised around three main business groups: Metals & Minerals and Energy Products, which are in turn sub-divided into several commodity departments. These departments are responsible for managing the production, sourcing, hedging, logistics and marketing activities relating to their respective commodities. The company is active in all key base metals (copper, zinc, cobalt, nickel, aluminium), thermal and metallurgical coal, as well as in oil and agricultural commodities (grains, oilseeds, cotton and sugar). Glencore's revenues stood at around USD 184 billion for the last twelve months ended in June 2017.

Liquidity analysis

Volcan has been operating with a tight liquidity position in the recent past but we anticipate a more conservative liquidity management going forward, in line with publically stated objectives. Although Volcan´s short-term lines have a low cost, the concentration of debt on short term maturities increases a company´s liquidity risk.

Accordingly, the company had a cash balance of USD 213 million as of September 2017 and, during the first three quarters of 2017, has maintained its cash coverage of short-term debt slightly above 1.0x.

Aside from short-term maturities, the company has a comfortable debt maturity profile, with the bonds due 2022 representing 67% of total debt. Moreover, we expect Volcan will target cash flow toward its pipeline of exploration projects, maintaining proven discipline regarding costs, capex and dividend distribution while maintaining a minimum cash balance of USD 100 million for operating purposes.

Rating Methodology and Scorecard Factors

Based upon Moody's rating methodology for the global mining industry published in August 2014, Volcan's grid indicated rating maps to a “Ba2” rating category on a three year historical basis through the twelve months ended September 30, 2017. The mapped rating is driven by Volcan's solid EBIT margins and adequate leverage and coverage metrics over this time frame. The forward rating view anticipates that Volcan will sustain adequate credit metrics for a “Ba” rating. The assigned rating of “Ba3” places additional emphasis on the company's small size compared to peers, tight liquidity management and exposure to commodity prices, leading to earnings volatility.

Exhibit 7

Rating Factors

Volcan Compania Minera S.A.A. y Subsidiarias

Mining Industry Grid [1][2]	Current LTM 9/30/2017		Moody's 12-18 Month Forward View As of 12/6/2017 [3]	
Factor 1 : Scale (20%)	**Measure**	**Score**	**Measure**	**Score**
a) Revenues (USD Billion)	$0.9	Caa	$0.8 - $0.9	Caa
Factor 2 : Business Profile (20%)				
a) Business Profile	Ba	Ba	Ba	Ba
Factor 3 : Profitability and Efficiency (15%)				
a) EBIT Margin (3 Year Avg)	17.1%	A	19% - 21%	Aa
b) Return on Average Tangible Assets (3 Year Avg)	6.2%	Ba	7% - 8%	Ba
Factor 4 : Leverage and Coverage (35%)				
a) EBIT / Interest Expense (3 Year Avg)	3.7x	Ba	4x - 5x	Baa
b) Debt / EBITDA (3 Year Avg)	2.8x	Baa	2.5x - 2.8x	Baa
c) Debt / Total Capital	36.7%	A	32% - 34%	A
d) (CFO - Dividends) / Debt (3 Year Avg)	25.4%	Baa	22% - 25%	Ba
Factor 5 : Financial Policy (10%)				
a) Financial Policy	Ba	Ba	Ba	Ba
Rating:				
a) Indicated Rating from Grid		Ba2		Ba1
b) Actual Rating Assigned				Ba3

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures. As of 9/30/2017(L).
Source: Moody's Financial Metrics™

Ratings

Exhibit 8

Category	Moody's Rating
VOLCAN COMPANIA MINERA S.A.A. Y SUBSIDIARIAS	
Outlook	Stable
Corporate Family Rating	Ba3
Senior Unsecured	Ba3

Source: Moody's Investors Service

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