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Stock Price analysis of Kaz Minerals

Thesis submitted for the

degree of Bachelor in

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Abstract

In 2019, only 24 million tons of copper were supplied to the world markets for a total of about $ 140 billion. Wood Mackenzie is forecasting a supply deficit of 4.4 million tonnes by 2029 unless new mining projects come on stream. Kaz Minerals is a large honey-producing, low-cost company in the CIS. The company invests in short and long term projects.

ACTOGAY EXPANSION PROJECT. Currently, KAZ Minerals is investing $ 1.2 billion in the Aktogay expansion project. By 2021, the site's sulphide ore processing capacity will have doubled, and annual copper production will have increased by around 80 kt at a low cash cost of US $ 100-120 per pound from 2022 to 2027 (KAZ Minerals PLC Annual Report 2019, 2020). The project will provide growth in the short term.

COPPER PROJECT BAIMSKAYA. The Group paid $900 million for the Baimskayacopper project in the Chukotka Autonomous Region of the Russian Federation in January 2019. Baimskaya is one of the largest undeveloped copper areas in the world, with the potential to build a large-scale, low-cost copper mining and processing complex based on an open pit mine. Copper production is expected to begin in 2026. The project has a significantnet present value (NPV) and an attractive internal rate of return (IRR). The Baimskayacopper project will provide growth in the long term.

Recommendations. We used DCF to evaluate KAZ Minerals PLC. According to our calculations, the share price of KAZ Minerals using the DCF method (period 2020-2025) was about $ 12, which is more than the closing price of $ 6.02 on April 20, 2021. The recommendation for the shares is **“BUY”**.

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Ticker : KZMYY (Bloomberg) Current Price:$6.03 as of 20/04/21

Date: 01/05/21
Recommendation : BUY (50% upside)
Target Price : $12

MARKET SNAPSHOT	
Ticker	KZMYY
Shares Outstanding	5.679B
Market Cap	946.58M

Introduction

We issue a BUY recommendation on KAZ Minerals PLC. with a DCF-based target price of $12, presenting 50% upside. KAZ Minerals is a low cost copper producer. The company has great growth potential, which allows the company to remain the largest copper producer in the CIS.

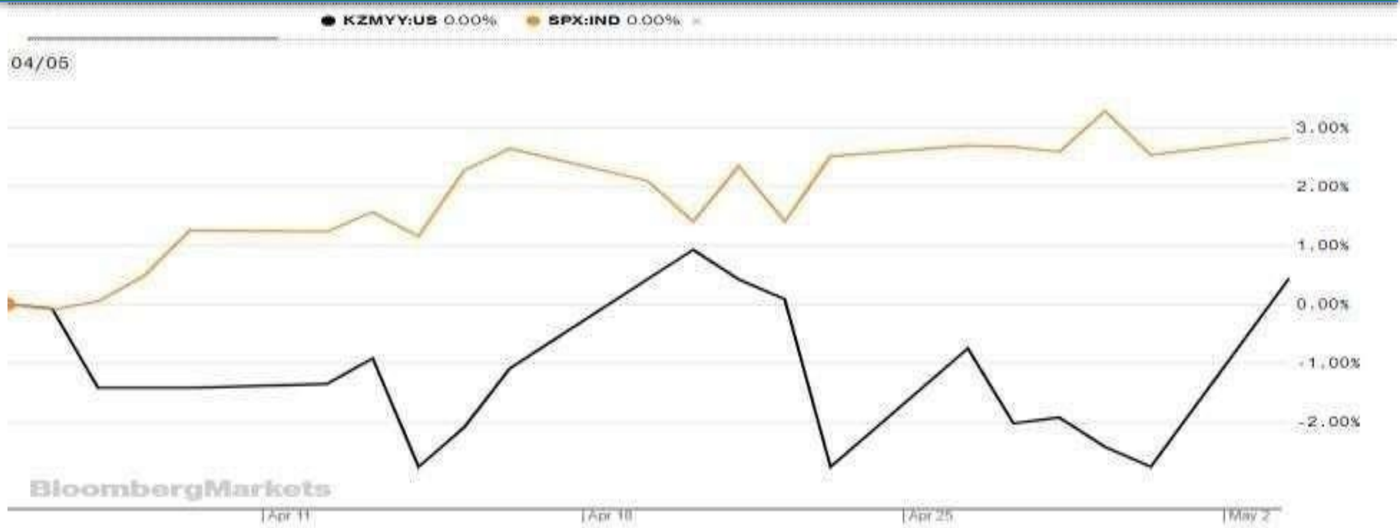
According to Company's annual report The Group's production increased from 85 kt in 2015 to 311 kt in 2019, representing a compound annual growth rate (CAGR) of 40%. The Group seeks to invest in production growth projects that provide value additions with low capital intensity and high investment returns (KAZ Minerals PLC Annual Report 2019, 2020).

According to Wood Mackenzie, copper demand will increase by 21% by 2029 and by 43% by 2040 (KAZ Minerals PLC Annual Report 2019, 2020). One ton of copper powers 40 cars, powers 60,000 mobile phones, powers 400 computers and distributes electricity to 30 homes (International Copper Association, n.d.). This suggests that the copper industryplays a large role in the global economy.

Forecastsummary	2018	2019	2020F	2021F	2022F	2023F	2024F	2025F
Revenue ($mln)	2 162	2 266	2 379	2 498	2 623	2 754	2 892	3 037
EBIT	643	726	766	804	845	887	931	978
Net Income	510	571	613	643	676	709	745	782
EPS	1.14	1.21	0.11	0.11	0.12	0.12	0.13	0.14

Source:CompanyData,TeamEstimates

Share price performance

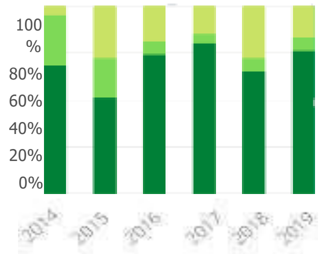


Source:Bloomberg

Business Description

KAZ Minerals is a copper mining company with a high growth potential focusing on large-scale, low-cost career-type production in Kazakhstan, Russia, and Kyrgyzstan. The Group is operating in open-pit Aktogay mines in eastern Kazakhstan and Bozshakol in Pavlodar oblast, three mines, and related processing plants in eastern Kazakhstan, and the Buzymchak copper and gold mine in Kyrgyzstan. In 2020, the total production of copper amounted to 306 thousand tons. As a companion product, 196 thousand ounces of gold, 3,374 million ounces of silver, and 50 thousand tons of zinc in concentrate were produced. The total production of copper was 306 thousand tons. In January 2019, the Group acquired the Baimskaya copper project in the Chukotka Autonomous Okrug of the Russian Federation (KAZ Minerals PLC Annual Report 2019, 2020). Initially, in October 2005 our company was registered on the London Exchange as Kazakhmys PLC. In 2014, the Group sold several assets and completed a major reorganization that transformed it into a copper mining company focused on the development of modern low-cost mining in Kazakhstan (Kaz Minerals, n.d.) Following the completion of the reorganization on October 31, 2014, The Company was renamed KAZ Minerals PLC. KAZ Minerals employs about 16,000 people, mostly Kazakh citizens.

FIGURE 1: REVENUE BY GEOGRAPHY (2014-2019)

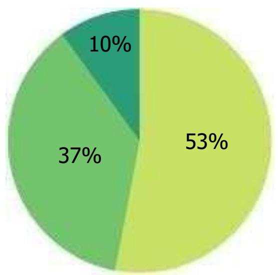


Source:Bloomberg

Geographic and business segment

The outlook for China's economy is particularly important, as the country is the world's largest copper user and KAZ Minerals' primary physical market. More than 75% of revenue comes from China, revenue from Europe is approximately 15-20%, the rest of the revenue comes from the CIS countries and from Kazakhstan(Figure 1). About 53 percent of sales proceeds come from the sale of copper concentrate and the next 37% of sales proceeds are generated from the sale of cathodic copper. The remaining proceeds from the sale come from gold, silver, and zinc-related goods (Figure 2).

FIGURE2:REVENUE BY SEGMENT (2019)



Source:Company Data

KAZ Minerals' products

Copper plays a major role in all modern infrastructure, power generation and transmission, transportation, communications, industrial equipment and electrical appliances.

KAZ Minerals - a copper-producing company with a portfolio of low-cost and long-term assets and a successful experience in building and launching world-class projects - is in a favorable position to realize its advantages against the background of the continued growth in demand for copper.

Industry Analysis and Competitive Positioning

Porter's Five Forces

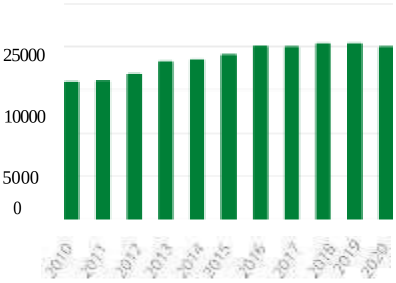
Threats of New Entrants

Today, copper is one of the main raw materials in the manufacture of automobiles, building materials and renewable energy. Due to the growing demand for the consumption of this product, the industry is expected to be profitable in the future. Thus, it can facilitate the emergence of new players in the market. New entrants can exert significant pressure through innovation and pricing strategies. However, KAZ Minerals can cope with the threats of new entrants. There are several barriers for new players: first, the copper industry is capital intensive, requires large capital expenditures for the development of copper deposits and the production of non-ferrous metals. Second, KAZ Minerals can create barriers to maintaining its market share in the industry. Since the company has low production costs, it can afford to increase capital expenditures for new field development and R&D. It will be difficult for potential new entrants to enter such a dynamic industry as high costs reduce margins.

Bargaining Power of Suppliers

The Group is dependent on the supply of materials and services from external suppliers and contractors. In 2019, 182 contractors operated at the Group's underground mines in the Eastern Region, and another 270 companies worked at the Aktogay and Bozshakol open pit mines. In total, about 11,000 contractors were employed at the production sites (KAZ Minerals PLC Annual Report 2019, 2020). Since these suppliers are not under KAZ Minerals' jurisdiction, there can be no guarantee that these or other external services will be delivered to the Group's specifications on a timely, uninterrupted basis, or without times when services will be unavailable. In conditions of increased demand, the availability and delivery on demand of the necessary raw materials, materials, mining and processing equipment cannot always be ensured, which can lead to an increase in delivery times and price inflation for them. The group relies on specialized contractors to design and commission large development projects. Transportation and logistics providers are also required by KAZ Minerals to transport production materials and finished goods. Any interruptions in the supply of mining machinery, supplies, metallurgical processing facilities, power supply and transmission, mine shafts, building works, transportation, and maintenance can have a negative impact on the financial situation, operating metrics, and potential results of operations. Inflationary increases in service costs, the cost of mining equipment and materials may raise operating and capital costs, affecting the Group's financial output, and the combination of these factors may affect the economic viability of individual mines and projects. If key contractors are unable to deliver services, there can be operational delays or increased costs. Failure to properly regulate transactions with related parties could lead to lawsuits, regulatory violations, and reputational harm to the Group. The Group's integrity may be harmed as a result of the activities of suppliers and contractors, and the Group may incur additional responsibilities as a result of their actions.

FIGURE 3: Copper mine production (2010-2020)

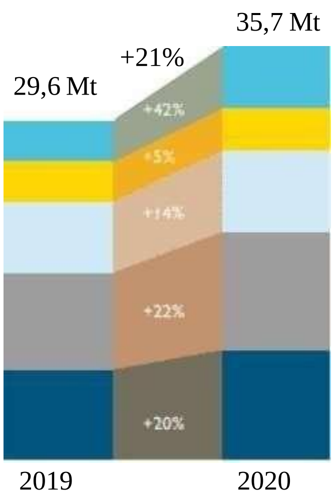


Source:Statista

Bargaining Power of Buyers

China's economic outlook is particularly important because it is the world's largest copper user and KAZ Minerals' primary physical market. The selling to China accounts for more than 70% of total sales revenue. The selling of goods to European customers accounts for the remaining 16 percent of sales revenue. Processing and refining costs are determined by China's copper smelting capacity and the availability of copper concentrate in the area. The Group's results are heavily influenced by commodity prices, especially copper, and to a lesser degree by gold, silver, and zinc prices. Commodity prices are highly volatile and are driven by a variety of factors such as global supply and demand, as well as investor sentiment. Copper prices have been negatively impacted by escalating trade tensions between the United States and China in 2019, and this trend may continue depending on developments. The outbreak of the Covid-19 coronavirus in China in December 2019 and the subsequent increase in confirmed cases have raised questions about the country's economic prospects. Since China is the world's largest copper user, a slowdown in China's economic growth could have a major negative effect on copper prices.

FIGURE 4:Copper demand by end use market



Source:Company's Annual report

Threats of Substitute Products or Services

Replacing copper with other metals is highly unlikely because the demand for copper and copper production is increasing every day (Figure3). Wood Mackenzie estimates that copper demand will grow by 21% by 2029 (Figure 4). In 2019, only 24 million tons of copper were supplied to world markets for a total of about $ 140 billion. By 2029, Wood Mackenzie also predicts a supply deficit of 4.4 million tons if new mining projects are not commissioned. In order for the copper market to remain balanced and to cope with the projected deficit, over the next seven years, new mining projects will need to be approved, financed and built, the aggregate size of which is 16 times the size of the Baimskaya copper project in Russia (KAZ Minerals PLC Annual Report 2019, 2020).

Rivalry among the Existing Competitors

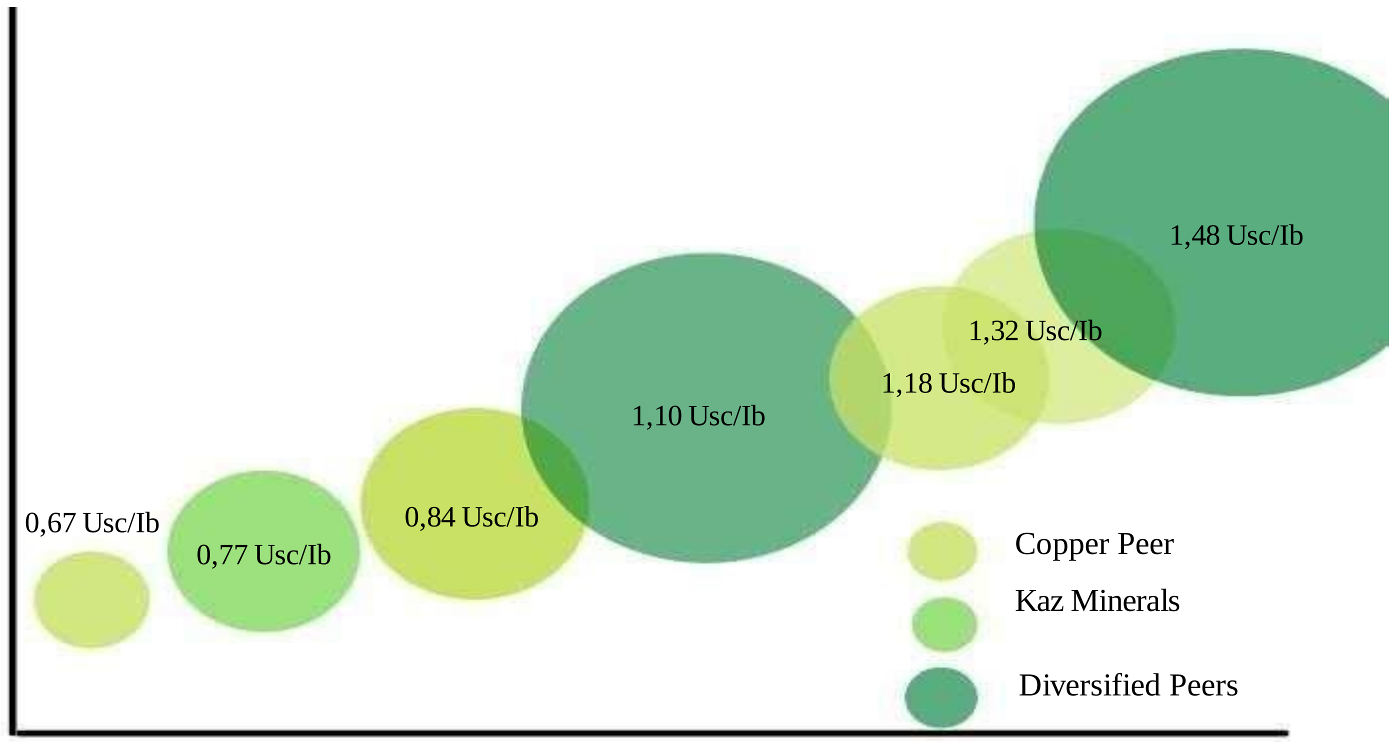
KAZ Minerals is a low cost producer (Figure 5). Producing at a low cost Low electricity tariffs, a low stripping ratio, automation, efficient large-scale processing technology, access to rail networks, and proximity to end-user markets all contribute to KAZ Minerals' location. Gold, silver, and zinc by-products are also found in the Group's mines. By- product revenues contribute to the Group's leading position in theindustry with a net cash cost. Kaz Minerals' 2019 net cash cost of 77 USc / lbwas among the lowest among listed copper specialties (KAZ Minerals PLC Annual Report 2019, 2020).

o **Electricity**. Competitive electricity tariffs and surplus local power supplies, which support the low-cost operation of large production facilities, are beneficial to Kaz Minerals' operations in Kazakhstan.

o **Water resources.** The group has direct access to underground and surface water sources. Kaz Minerals' state-of-the-art recycling plants ensure the reuse of a high proportion of the water consumed. The group's mines recycle 70-80% of industrial water.

o**Transport infrastructure**. Kaz Minerals' manufacturing facilities have direct connections to existing national rail networks, enabling Kaz Minerals to efficiently supply its customers in China and Europe.

FIGURE5:Cost of copper producers



Source:Company Data, TeamAnalysis

Competitive Positioning

The copper industry contributes greatly to the global economy. Copper is used in many industries. One ton of copper powers 40 cars, powers 60,000 mobile phones, powers 400 computers and distributes electricity to 30 homes (International Copper Association, n.d.-a)

Kaz Minerals competitive positioning

Kaz Minerals is the largest honey mining company among the CIS countries. The group has access to key resources (5168 million tonnes) for copper mining. Their recent purchase of Baimskaya in the Russian Federation allows the company to grow in the long term. The company's operations in Kazakhstan benefit from competitive electricity tariffs, which enable the Group to carry out large-scale projects at low costs. The company also has access to underground and aboveground water resources and uses water twice through recycling, which saves money. The proximity of railway tracks to the ores helps to deliver finished products within two days at least.

Investment Summary

We recommend buying KAZ Minerals shares with a target price of 12 per share, using the DCF valuation methodology. According to our calculations, a potential growth of 50% is expected; also, based on the comparative assessment method, a 5-fold increase is expected. We believe that KAZ Mineral is likely to provide a good growth rate for the following three reasons:

1) Good financial performance and growth potential;
2) DCF valuation;
3) Project Baimskaya.

Good financial performance and growth potential.

Financial performance of KAZ Minerals in 2021 may deteriorate due to weak production of copper cathode product, in our opinion, this is due to a decrease in the amount of copper reserves at the Bozshakol mines and Aktogay in Kazakhstan. But a strong recovery in copper market prices and stronger demand in China and the global economic recovery following the COVID-19 pandemic could help improve the growth prospects for copper cathode product sales. Higher revenues from gold as an additional product and any devaluation of the tenge versus the dollar will also reduce net cash costs and increase margins. Since the IPO, revenue has almost tripled from $ 846 million to $ 2.35 billion at the end of 2020. Over the past 3 years, this average is US $ 2.261 billion.

Currently, copper exports to China account for 76% of KAZ Minerals' revenues, and China is expected to continue to generate the bulk of the company's revenues.

We believe that the high price of copper portends great prospects for revenue growth and net profit for our company, especially the implementation of its new project in Russia – the development of the Baimskaya field will help the company reach new highs in copper production. According to analysts of KAZ Minerals, copper production may increase by more than 500,000 tons in 2027-2030, compared to 360,000 tons in 2020. The price of copper has increased by almost 15% since the beginning of 2021, as the market continues to increase interest in the production of electric vehicles and renewable energy, also due to the development of a vaccine against COVID-19 and the potential recovery of the global economy. (Bloomberg Intelligence, KAZ Minerals Company Outlook, 2021)

DCF Valuation

According to our assessment, DCF, we received a target price of 12 US dollars. Our model is based on the WACC, which is 50%. However, according to a comparative assessment, KAZ Mineral has the lowest P / E (6.67) and EV / EBITDA (5.64) multiples, which suggests that there is upside potential per share. The company has a stable EPS-based growth since 2015, this indicator increased from 0.40 in 2015 to 1.36 at the end of 2020, we believe that KAZ Minerals will have profit growth in the coming years. (Bloomberg Intelligence, KAZ Minerals Company Outlook 2020)

Project Baimskaya

KAZ Minerals forecasts that the launch of a Russian mine could produce and supply 250,000 tonnes of copper and 400,000 ounces of gold per year. Therefore, the Baimskaya project, acquired in January 2019, could increase the growth of copper production in the country. The Peschanka deposit in the Baimskaya license area may contain almost 9.5 million tons of copper resources, it is one of the ten largest undeveloped new copper projects. In our opinion, in the long term, KAZ Minerals will increase production and profit.

Valuation

We used DCF to evaluate KAZ Minerals PLC. According to our calculations, the share price of KAZ Minerals using the DCF method (period 2020-2025) was about $ 12, which is more than the closing price of $ 6.02 on April 20, 2021.

INTRINSIC VALUATION: FREE CASH FLOW TO FIRM

We have chosen the FCFF Model because the Group is expected to change its capital structure. Based on our FCFE analysis, the estimated price is $ 12.

WACC

The WACC, based on the calculation results, was 6.96%. The cost of capital was calculated using a Capital Asset Pricing Model that was adjusted for country risk. We took the 10-year US government bond yield as the risk-free rate and the SP 500 index as the market yield. The company's adjusted beta was taken from Bloomberg. According to Domodaran's sources, the country risk was 2%. We obtained a Cost of equity of 8%. The cost of debt was calculated as the arithmetic average of the interest rates on borrowings of Kaz Minerals PLC. Market value of debt was based on book value of debt since company does not have bonds.

ASSUMPTION	RATE	METHODOLOGY	SOURCE
Risk-free rate	1,74%	The United States 10Y Government Bond	bloomberg
Market risk premium	5,77%	S&P 500 market return for 2021	bloomberg
Beta	1,09	Adjusted Beta of Kaz Minerals	bloomberg
Cost of equity	8%	calculated via capm	
Cost of debt	6,1	the arithmetic average of the interest rates on borrowings of Kaz Minerals	company data
Tax rate	20%	Corporate tax rate	

Terminal Growth Rate

Our terminal growth rate assumption of 2.5% is based on Expected GDP growth rate of Kazakhstan

Relative Valuation

Using generally accepted EV / EBITDA and P / E ratios, we can see that KAZ Minerals is undervalued considering the performance of competitors and the average growth rate over the past 5 years. To provide a more comparable and reliable multiple valuation, we have selected EV / EBITDA and P / E ratios as the most appropriate ratio to compare KAZ Minerals with its peers. We use this approach because our company is mature and not experiencing high growth rates. For the composition of the group of peers, we have selected companies from the non-ferrous metals mining sector, in which the Company and its clients operate. Compared to competitors, KAZ Minerals has a small capitalization of $ 5.521 billion. KAZ Mineral looks relatively undervalued on a P / E multiple compared to peers in the industry. The average P / E currently stands at 25.2x, while KAZ Minerals' average P / E is 8.62x, implying a 66% discount. Also, in terms of EV / EBITDA multiple, KAZ Minerals looks a little undervalued. The industry average is 9.73x, while KAZ Minerals has 6.51x. It is also worth noting that the return on equity and assets - ROE, ROA KAZ Minerals is significantly higher than in the industry. The industry average ROA and ROE are 8.25 and 3.52 versus KAZ Mineral's 28.52 and 9.88, respectively. Our peer analysis led us to target price of $26,5 (Figure 5).

FIGURE 6

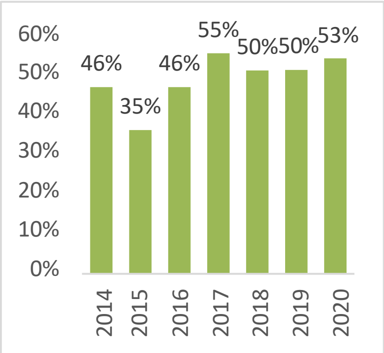
	Valuation	Weight
Comparing by P/E	33,26	0,5
Comparing by EV/Ebitda	19,85	0,5
	26,5	

Source: Team Estimates

Income Statement

We see KAZ Minerals is growing since 2016. There was a 2 key moments since 2014 in revenue section in Income Statement. From horizontal analysis it can be seen that in 2015 there was a decline by 21%. It can be explained by restructuring made in 2014. It included disposal of mature assets in Zhezkazgan and Central Region. It was divested to Cuprum Netherlands Holding B.V. Also included in the restructuring was a cash payment from KAZ Minerals to Cuprum Holding to cover the Disposal Assets' working capital requirements. The Disposal Assets left the KAZ Minerals with $188 million in net funds on October 31, 2014. According to the company's management, lower commodity prices, high sustaining capital expenditure needs, declining grades, cost inflation, and a large social footprint put pressure on the assets' profitability and cash flow generation. They required large investment to extend their lives, return to positive cash flow, and maintain jobs, which was incompatible with the company's current spending commitments. A restructuring plan was formulated in order to achieve long-term positive cash flow, support major growth, and concentrate on copper production. Because of that reason this year also was a sale of 50% stake in Ekibastuz GRES-1.

FIGURE7: GrossProfit Margin (Vertical)

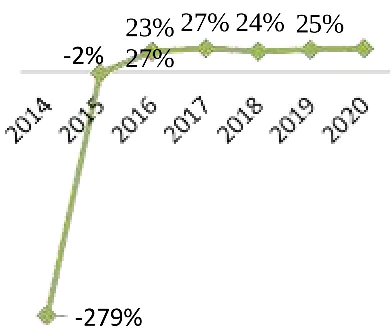


Source: Company Data,Team Estimates

Revenue

After restructuring, KAZ Minerals didn't have an assets which gained stable revenue, and investing to increase production in other mining places didn't started gaining revenue at full capacity. So there was a significant decline in revenue in this year. In 2016, started to sell copper in concentrate, not just cathodes, and there was a significant increase in revenue, but real boom was next year. In 2017, investments started to pay off and mining places worked at full capacity, copper production tripled compared to 2015, from 85 kt to 259 kt, and as a result company had a rise of revenue by 117%. In 2018, there was also significant growth in revenue due to several reasons: increase of copper production by 36 kt, construction of second concentrator in Aktogay at the end of 2017 which doubled sulphide producing capacity, acquisition of Baimskaya in Russia, world's most significant undeveloped copper asset, and copper prices which were higher by 6% than 2017, reaching $6,526/t. In 2019 and 2020, there was a stable increase in revenue at the range of 4-5%. In 2019, Copper production continued to grow as well as gold production, but copper price fallen by 8%, on the contrary gold price increased by 10%. In 2020, copper and gold production decreased by 2 and 3% due to COVID-19 pandemic, but rise of gold price by 27% allowed to company to keep continue growth of revenue, copper price also raised by 3%.

FIGURE8: NetProfit Margin(Vertical)



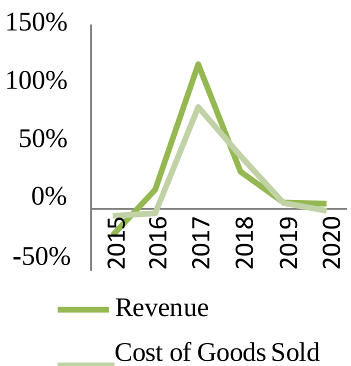
Source: Company Data,Team Estimates

Costs of Production

One of the aims of restructuring in 2014 was to decrease costs in production. As we can see from vertical analysis it decreased from 54% to 47% from 2014 to 2020. In 2015 it was 65%, but it can be explained that this year was "year of restructuring and investments".

At the restructuring, except divesting assets in Zhezkazgan and Central region, also was the policy to revalue all assets to know how much cash flow they can generate in the future and get rid of non-useful assets. Impairment and write-off of assets in 2014 can be explained by this decision.

FIGURE9: Revenue and COGS Growth (Horizontal)



Source: Company Data,Team Estimates

Administrative expenses

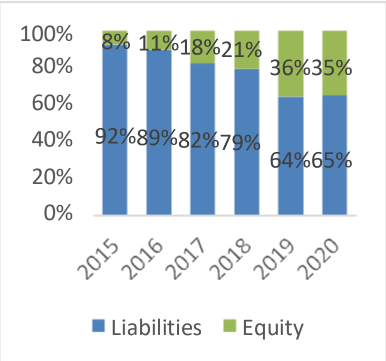
After restructuring, since 2016, Administrative expenses started increasing, but it was less than revenue's increase, so in vertical analysis it was less than in 2014 and 2015 (16% and 19%, respectively), staying in range of 5-6% of total revenue from 2017 to 2020. For comparison, from 2014 to 2020 Revenue increased by 178%, Administrative expenses by 9%.

Foreign exchange gains and losses

Until 2018 foreign exchange gains and losses were in finance income and cost sections, so huge amount of finance income and costs were due to devaluation of tenge in 2014 and 2015. At the end of 2013, USD/KZT was 153.61, at 2014 – 182.35,
at 2015 – 339.47.

As it can be seen until 2017 finance costs were comparably low, it is because most of these interest expenses were capitalized. Interest costs relating to the Bozshakol sulphide and Aktogay oxide plants being expensed since 2017, because these plants achieved commercial production.

FIGURE10:Debt-Equity Ratio(Vertical)



Source: Company Data,Team Estimates

As was written before in 2014 KAZ Minerals decided to divest Zhezkazgan and Central Region to Cuprum Netherlands Holding B.V. With effect from August 15, 2014, Disposal Assets were listed as assets held for sale and are classified as a discontinued operation in these financial statements. Reclassification resulted in a $1.6 billion loss due to the remeasurement of these assets to market value. Following completion, a $690 million charge was reported because of the recycling to the income statement of the net foreign exchange losses previously recorded in equity, as well as the recycling of $42 million in other reserves. For the year ended December 31, 2014, the company reported a net loss on disposal of $2.3 billion. (Appendix – C).

Balance Sheet

Current Assets

In 2015, Current Assets decreased by 42%. In particular, cash decreased by 41%, mainly because of purchase of Property, Plant and Equipment for more than $1 billion and negative net income for the year. In 2017, Net Income increased by 153% and was less cash outflow of investing activities, so cash raised by 64%. Next 2 years, although Net Income was increasing, cash was decreasing because of investing in fixed assets and repayment of debt. Last year, company continued their investing activities, but increased Net Income and loan taken from bank sharply increased cash by 140%.

Non-Current Assets

Since 2015, changes in Non-Current Assets were non-significant, except 2016 and 2019. In 2016, there was 30% increase mainly because of Bozshakol sulphide and Aktogay oxide plants launching.

KAZ Minerals announced the Initial Completion of the acquisition of the Baimskaya copper project in Russia's Chukotka region on 22 January 2019. The total consideration due at Initial Completion was $675 million, consisting of $436 million in cash and $239 million in new KAZ Minerals shares allocated to the Vendor. The
22.3 million shares are subject to a three-year lock-up period. Deferred Consideration of $225 million for the remaining interest would be paid in 21.0 million shares if certain Project Delivery Conditions were met, such as a pre- determined amount of throughput and infrastructure construction by the Russian government. If the corporation fails to meet or waive these conditions, and the Deferred Consideration is not settled in shares, the Deferred Consideration will be payable in cash on March 31, 2029.

The deal is defined by IFRS 2 'Share-based Payment' since part of the consideration is settled in shares. The $239 million Initial Consideration of 22.3 million KAZ Minerals PLC shares has been recognized as a $6 million increase in share capital and a $233 million share premium. The $225 million Deferred Consideration has also been included in equity, indicating the company's willingness to settle this sum by issuing 21.0 million shares.

The company obtained a 75% equity stake in the project on Initial Completion, however no non-controlling interest is recognised as the remaining 25% will be purchased through Deferred Consideration.

The total consideration for the acquisition was $900 million, of which around $880 million has been reflected as a mining licence within mining assets, $13 million in net deferred tax assets and $7 million relating to other non-current assets, income taxes prepaid and cash and cash equivalents ($1 million). Other long-term advances of $15 million, relating to amounts transferred to the Baimskaya copper project for study costs, ahead of Initial Completion, were also reclassified to mining assets. So, in 2019 Non-Current Assets increased by 59%.

Current Liabilities

Since 2015, changes in Current Liabilities were non significant, unless in 2017, when it increased by 54%. In particular, it happened because of sharp increase in other short term liabilities from $15 to $311 million. In November 2015, KAZ Minerals reached an agreement with its principal construction contractor at Aktogay, NFC, to defer payment of $300 million. Under these terms, $300 million scheduled for payment in 2016 and 2017, was deferred for settlement in the first half of 2018, with $250 million becoming payable shortly after 31 December 2017 and $50 million shortly after 30 June 2018. The extended credit terms arising from the agreement were discounted using a rate of US$ LIBOR plus 4.2% on the estimated cost of services. The discount rate applied is in line with the CBD Aktogay facility.

Non-Current Liabilities

In 2020, Non Current Liabilities increased by 22%, main reasons were PXF and Aktogay expansion facilities.

The PXF facility had drawn $1.0 billion (2019: $300 million) at the end of December 2020, with a $17 million repayment in January 2020 and subsequent drawings of $702 million (net of arrangement fees) in the first quarter of 2020. The contract payments relating to the amendment have been netted off against these borrowings in compliance with IFRS 9 with an amortized expense of $11 million (2019:$0) at 31 December 2020 (2019:$0) since the present value of the cash flows under the previous facility was not calculated to be significantly different. Within 12 months of the balance sheet date, $163 million was expected to be repaid.

The $600 million credit line was established in June 2019 and will be used to fund capital expenditures on certain contracts for the Aktogay expansion project. At the end of 2020, $549 million had been drawn under the facility (2019: $320 million), with $229 million drawn during the year. In compliance with IFRS 9, arrangement payments with an amortized expense of $4 million (2019: $5 million) have been deducted from these borrowings. The facility has a 15-year term and bears debt at the rate of US$ LIBOR plus 3.90 percent. The loan is repayable in instalments, with the first payment due in June 2022 and subsequent semi-annual payments due in May and November of each year from November 2022 to 2034.

Equity

Until 2019, Share Capital of the company was stable, but as was written before in Non Current Assets changes section about acquisition of Baimskaya copper project part of the consideration was $6 million share capital and $233 million share premium. In 2020, there were no changes in this section.

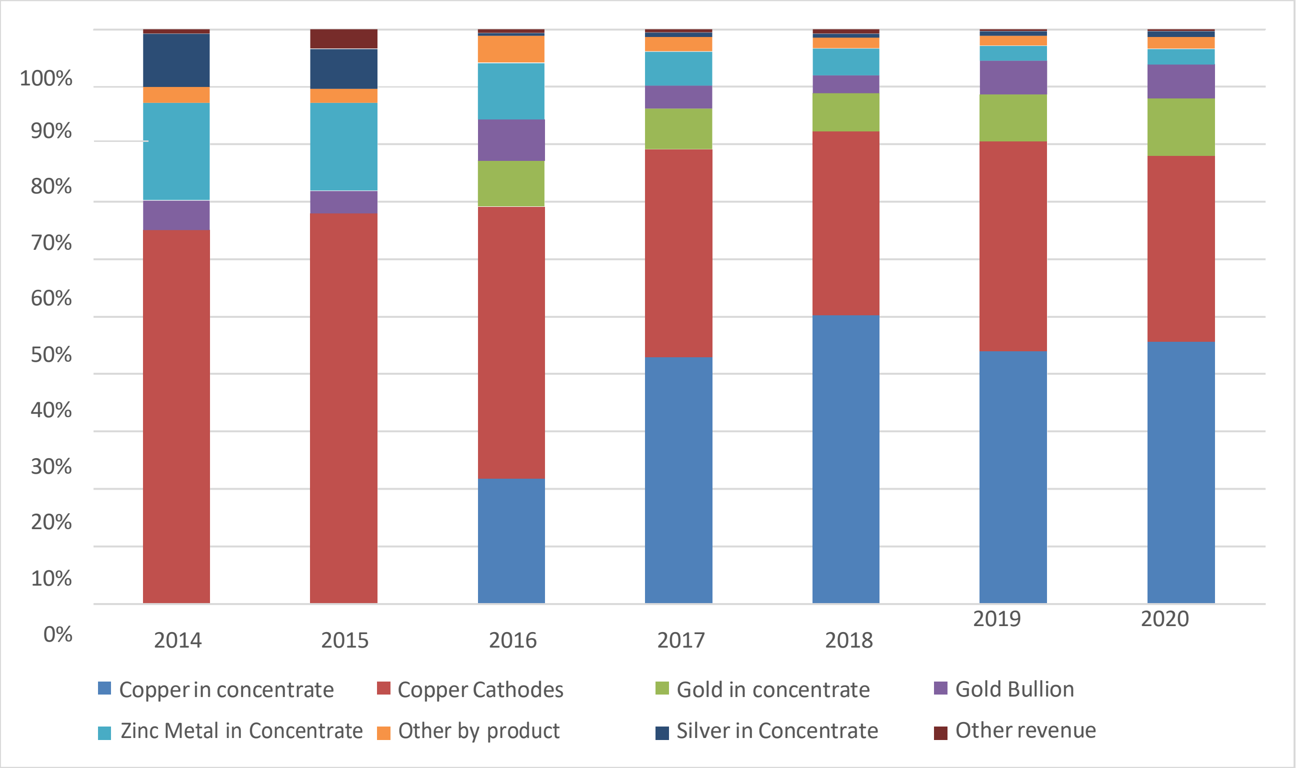
Capital reserve of the company includes transfers from retained earnings to reserve funds and exchange differences on retranslation of foreign operations. Changes were non significant, except 2015, when was a devaluation of tenge and Capital resrve decreased by 593%.

On June 8, 2018, KAZ Minerals revealed that NFC had agreed to invest $70 million in the Group's Koksay project in exchange for a 19.4 percent equity stake. Following the completion of the deal in July 2019, the Group transferred a 19.4 percent equity stake in KAZ Minerals Koksay B.V., the parent company of the firm that owns the Koksay mining license in Kazakhstan, to NFC. The cash consideration of $70 million (including $25 million received in December 2018) was reported as a current liability pending the transaction's completion. Following the completion of the deal, NFC's interest in KAZ Minerals Koksay B.V. was recorded as a $59 million Non-Controlling Interest, representing its share of Koksay's net assets, with the remaining amount being recorded directly within equity and attributed to the company's shareholders. NFC's $70 million investment will go entirely into the construction of Koksay, including a feasibility report that will decide the comprehensive design for mining and processing operations, as well as the capital budget.

In addition, at the end of 2018, the company had $4 million in non-controlling interests that were not material to the business.

Revenue by products

In 2014, main product of KAZ Minerals, which generates most of the revenue, 65%, was Copper cathodes. But now their sales brings only 32%, while leader by products is copper in concentrate, 45% from total revenue. It is necessary to admit that until 2016, they weren't even produced. Company also didn't sell gold in concentrate until 2016, but last year it increased its portion in revenue by 2% and now generates 10%. It is related not with the growth of production, but growth of price for gold. In 2020, due to the COVID-19 pandemic situation price of the gold raised by 35%. Zinc in concentrate which generated 17% of the revenue in 2014, was decreasing all over the period and in 2020, its portion was only 2.7%. Same situation with the silver in concentrate, which have fallen from 9% to 1% from total revenue. Changes in gold bullion and other products was non significant.



Source:Company Data,Team Estimates

Investment Risks

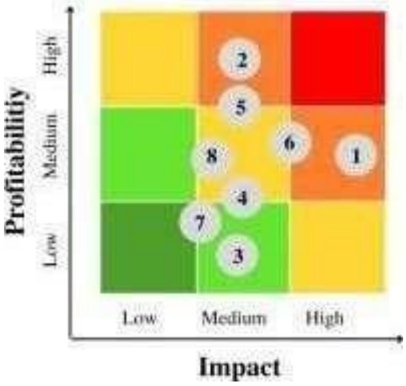
Production disruptions (Operational risks)

Unfavorable weather conditions, interruptions in the supply of electricity or water, technical problems can cause disruptions in production and subsequently lead to unplanned expenses and affect the cash flows.

Mitigation

Infrastructure and equipment are checked on a regular basis. The management of the company says that the selling of copper concentrate to customers would be possible even if the copper smelter is shut down for a significant period of time (KAZ Minerals PLC Annual Report 2019, 2020).

FIGURE 11: INVESTMENTRISK MATRIX



1. *Production disruption*
2. *Economic returns and new projects*
3. *Health and safety risk*
4. *Employees*
5. *Commodity price risk*
6. *Customer concentration risk*
7. *Currency exchange risk*
8. *Liquidity risk*

Source: Company Data,Team Estimates

Economic returns and new projects (Operational risks)

Due to excess capital and operating costs, failure to recover mineral reserves or design errors, there is a risk that the desired economic returns on investment may not be achieved.

Mitigation

New projects undergo rigorous assessment and analysis prior to their acceptance. A Project Assurance Committee has been established to manage the project, plan all capital costs.

Health and safety risk

The mining industry is always accompanied by hazards and risks of harm to health. Fatalities and other incidents in the fields can subsequently lead to financial losses and disruptions in production.

Mitigation

In 2019, the “Goal Zero” initiative was launched to ensure safe working environment for personnel. The goal of “Goal Zero” is to achieve zero accidents. Also, the HSS Committee is responsible for monitoring and analyzing safety risks.

Employees

In order to implement growth projects for a company, it is important to be able to retain and attract highly skilled workers. The risk of an outflow of personnel is equally important, as it directly affects the Group's production activities.

Mitigation

To attract and retain specialists, KAZ Minerals monitors the labor market in order to maintain its competitiveness. Creating a talent pool by implementing a leadership development program, creating development opportunities, and designing training plans and succession programs (KAZ Minerals PLC Annual Report 2019, 2020).

Commodity price risk

The primary risk of investing in KAZ Minerals stock is commodity price risk. The company sells its products in accordance with contracts at prices accepted on world metal exchanges. The financial performance of the Company is greatly influenced by the prices of raw materials especially for copper. These metals' prices are determined by market supply and demand and investors’ mood. In particular, the Company's performance is influenced by demand from China, which is the main consumer of metals produced by KAZ Minerals. Commodity prices can experience significant volatility as a result of these factors, both positively and negatively impacting thefinancial performance of KAZ Minerals.

Mitigation

Generally, the Group avoids hedging commodity prices, but may use a specific commodity hedge program where the Board of Directors determines that it becomes necessary to provide assurance about future cash flows (KAZ Minerals, n.d.)

Customer concentration risk

The company's financial performance is directly affected by the demand from China, which is the main consumer of copper. The loss of one of the key clients of the company will greatly affect the company's activities. But we believe that customer loss is unlikely given the long and strong customer relationship and projected growth in copper consumption from China.

Currency exchange risk

KAZ Minerals are exposed to exchange rate risk. This risk arises from sales and purchases denominated in currencies other than the functional currency of the company, with the US dollar and the Chinese Yuan being the main currencies giving rise to exchange rate risk. Foreign exchange gains and losses arise primarily from settlements for intra-group financing, account receivables or payables.

Whenever possible, the Group uses the US dollar to minimize the impact of other currencies, for example dollars for capital costs, acquisitions or debt payments they keeps all of its excess cash in US.

Mitigation

Generally, the Group avoids hedging their foreign exchange risk. However, if acquisitions and capital expenditures expose a company to foreign exchange risk, then the entity hedges the risks as they arise.

Liquidity risk

KAZ Minerals is exposed to liquidity risk if the company is unable to repay its financial obligations in full and on time. Baimskaya project requires additional funding for its development, which, as a result, may increase the level of KAZ Minerals' debt (KAZ Minerals PLC Annual Report 2019, 2020).

Mitigation

The board of directors carefully monitors the cash flow forecasts. In 31 December 2020 the Group had $874 milion cash and cash equivalents, $1.3 billion available liquidity (KAZ Minerals PLC Annual Report 2019, 2020). In addition, KAZ Minerals has extensive experience in raising borrowed funds to finance large projects.

Sensitivity Analysis

We did a sensitivity analysis to see the effect of changes to our WACC and terminal growth assumptions.

		WACC				
	12	6,61%	6,81%	**7,01%**	7,21%	7,41%
Growth Rate	1,50%	10	10	9	9	8
	2,00%	12	11	10	10	9
	2,50%	14	13	**12**	11	10
	3,00%	16	15	14	13	12
	3,50%	20	18	17	15	14

Source: Team Estimates

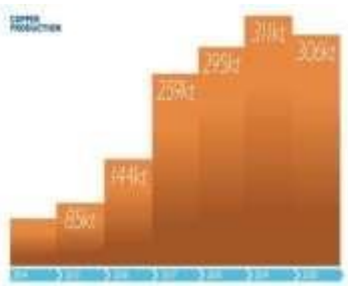
S

- **Good financial performance:**
  - ➢ Strong free cash flow and low operating costs. Free cash flow increased by 63% to \$ 807 million (2019: \$ 512 million) (KAZ Minerals PLC Annual Report 2019, 2020).
  - ➢ Net cash cost decreased by 17% to 64 USc / lb (2019: 77 USc / lb)
  - ➢ Sales revenue increased by 4% to \$ 2,355 million 2020 (2019: \$ 2,266 million).
  - ➢ EBITDA increased by 6% to \$ 1,431 million (2019: \$ 1,355 million)
  - ➢ Current liquidity ratio = 1.52 (standard > 1.5); quick liquidity ratio = 0.8 (standard = 0.6-1); absolute liquidity ratio = 0.58 (standard > 0.2)
- Domestic market leadership across the industry
- Improved level of safety and labor protection (Figure 11)
- Steady growth in copper production (Figure 12)

FIGURE 12

Source: Company Data

FIGURE 13: Copper Production



Source: Company Data

W

- Dependence on China. China is one of the main consumers of copper and the main physical market for KAZ Minerals. (70% of sales revenue)
- KAZ Minerals is dependent on external suppliers and contractors for supplies of materials and services.

O

- Increasing demand for copper and a wide range of copper applications enable KAZ Minerals to enter new markets. Copper can be used in power supply, construction, refrigerators and etc. (Kaz Minerals, n.d.).

T

- The copper sector is expected to have a supply shortage in the medium and long term. Due to lower grades of metal in ore and lack of new large copper deposits
- New technologies or innovations introduced by a competitors

List of Abbreviations

ABBREVIATION	FULL TERM
KZMYY	Kaz Minerals PLC
TP	Target Price
DCF	Discounted Cash Flow
CAGR	Compounded Annual GrowthRate
EPS	Earnings Per Share
P/E	Price-to-Earnings Ratio
GPM	Gross Profit Margin
ROE	Returnon Equity
D/E	Debt-to-Equity Ratio
PEG	Price/Earnings-to-GrowthRatio
FCFF	Free Cash Flow to the Firm
GDP	Gross Domestic Product
CFO	Operating Cash Flow
WACC	Weighted Average Cost of Capital
OM	Operating Margin
ROA	Return on Assets

Appendix A: Financials

APPENDIX A-1: INCOME STATEMENT

$ million	2018	2019	2020F	2021F	2022F	2023F	2024F	2025F
Revenue	**2 162**	**2 266**	**2379**	**2498**	**2623**	**2754**	**2892**	**3037**
Costof Revenue	(1 077)	(1 124)	(1 190)	(1 249)	(1 312)	(1 377)	(1 446)	(1 518)
GrossProfit	**1 085**	**1 142**	**1 190**	**1 249**	**1 312**	**1 377**	**1 446**	**1 518**
Sellinganddistributionexpenses	(94)	(91)	(95)	(100)	(105)	(110)	(116)	(121)
Generalandadministrative expenses	(115)	(132)	(143)	(150)	(157)	(165)	(174)	(182)
Otherincome, net	4	9	7	7	8	8	9	9
Impairment losses	(29)	(5)	(5)	(6)	(6)	(6)	(6)	(7)
OperatingProfit	**851**	**923**	**954**	**1 001**	**1 051**	**1 104**	**1 159**	**1 217**
Finance income	33	18	48	50	52	55	58	61
Finance costs	(245)	(195)	(214)	(225)	(236)	(248)	(260)	(273)
Foreign exchange gain(loss)	3	(20)	(21)	(22)	(23)	(24)	(26)	(27)
Profit/(loss) before tax	**642**	**726**	**766**	**804**	**845**	**887**	**931**	**978**
Income tax expense	(132)	(155)	(153)	(161)	(169)	(177)	(186)	(196)
Profit/(loss) for the year	**510**	**571**	**613**	**643**	**676**	**709**	**745**	**782**

Source: Company Data, Team Estimates

APPENDIX A-2: BALANCE SHEET

$ million	2018	2019	2020F	2021F	2022F	2023F	2024F	2025F
ASSETS								
Current Assets								
Cash and cash equivalents	1 219	541	542	657	875	1095	1278	1492
Receivables, net	127	176	185	194	204	214	225	236
Inventories, net	439	553	581	610	640	672	706	741
Income taxes prepaid	18	7	7	7	7	7	7	7
Prepayments and other current assets	90	193	214	225	236	248	260	273
Total Current Assets	2 143	1 470	1 529	1 693	1 962	2 236	2 476	2 750
Non-Current Assets								
Intangible assets	6	5	5	5	5	5	5	5
Property, plant and equipment, net	2 130	2 756	2 599	2 442	2 285	2 128	1 972	1 815
Mining assets	432	1 457	1 644	1 855	2 093	2 362	2 665	3 007
Deferred tax asset	28	40	40	40	40	40	40	40
Other non-current assets	301	338	338	338	338	338	338	338
Total Non-Current Assets	2 897	4 596	4 626	4 680	4 761	4 873	5 019	5 205
Total Assets	**5 040**	**6 066**	**6 155**	**6 373**	**6 723**	**7 109**	**7 495**	**7 954**
LIABILITIES AND EQUITY								
Current Liabilities								
Trade payables and other liabilities	320	360	381	400	420	441	464	487
Borrowings	539	545	445	345	345	381	347	252
Employee benefits	2	2	2	2	2	2	2	2
Income Tax Payable	11	16	16	16	16	16	16	16
Other current liabilities	46	3	3	3	3	3	3	3
Total Current Liabilities								
Non-Current Liabilities	919	926	847	766	786	843	831	759
Borrowings	2 914	2 755	2310	1965	1620	1239	893	641
Deferred tax liability	76	110	110	110	110	110	110	110
Employee benefits	12	15	15	15	15	15	15	15
Provisions for closure and site restoration	58	74	74	74	74	74	74	74
Other non-current liabilities	7	12	12	12	12	12	12	12
Total Non-Current Liabilities	1,017	1,018	1,018	1,518	2,018	2,518	3,018	
Total Liabilities	**3 986**	**3 892**	**3 368**	**2 942**	**2 617**	**2 293**	**1 935**	**1 612**
Equity								
Share capital	171	177	177	177	177	177	177	177
Share premium	3,255	3,255	3,255	3,255	3,255	3,255	3,255	3,255
Reserves	(2 457)	(2 158)	(2 158)	(2158)	(2 158)	(2 158)	(2 158)	(2 158)
Retained earnings	686	1 213	1 826	2469	3 145	3 854	4 599	5 382
Non-controlling interest	4	59	59	59	59	59	59	59
Total Equity	**1 054**	**2 174**	**2 787**	**3 430**	**4 106**	**4 815**	**5 560**	**6 343**
Total Liabilities and Equity	**5 040**	**6 066**	**6 155**	**6 373**	**6 723**	**7 109**	**7 495**	**7 954**

Source: Company Data, Team Estimates

APPENDIX A-3: FORECASTED CASH FLOW STATEMENT

$ million			2020F	2021F	2022F	2023F	2024F	2025F
CASH FLOWS FROM OPERATING ACTIVITIES								
Profit before income tax expense				613	643	676	709	745
Adjustments for:								
Depreciation and amortization				979	979	979	979	979
Changes in current operating assets and liabilities:				-	-	-	-	
(Increase) decrease in:								
Receivables	(9)	(9)	(10)	(10)	(11)	(11)	(9)	(9)
Inventories	(28)	(29)	(30)	(32)	(34)	(35)	(28)	(29)
Trade and other payables	21	19	20	21	22	23	21	19
Prepayments and other current assets	(21)	(11)	(11)	(12)	(12)	(13)	(21)	(11)
Borrowings	(100)	(100)	-	36	(34)	(95)	(100)	(100)
Net cash flows from/(used in) operating activities	**1456**	**1493**	**1624**	**1691**	**1656**	**1630**	**1456**	**1493**

CASHFLOWSFROMINVESTINGACTIVITIES						
Dividendsreceived	0	0	0	-	-	-
Capex	(823)	(823)	(823)	(823)	(823)	(823)
Investments in mining assets, including licences	(187)	(211)	(238)	(269)	(303)	(342)
Otherinvestingactivities	0	0	0	-	-	-
Net cash flows from/(used in) investingactivities	**(1 009)**	**(1 033)**	**(1 061)**	**(1 091)**	**(1 126)**	**(1 165)**
CASHFLOWSFROMFINANCING ACTIVITIES						
Repayment of borrowings	(445)	(345)	(345)	(381)	(347)	(252)
Dividendspaid	-	-	-	-	-	-
Net cash flows (used in)/from financing activities	**(445)**	**(345)**	**(345)**	**(381)**	**(347)**	**(252)**
Net Change/(Change) in cash and cash equivalents	1	114	218	220	184	214
Cash and cash equivalents at the beginning of the year	541	542	657	875	1 095	1 278
Cashand cashequivalents, End	**542**	**657**	**875**	**1 095**	**1 278**	**1 492**

Source:CompanyData,TeamEstimates

APPENDIXA-4:KEYFINANCIALRATIOSOFPEERS

Name	Mkt Cap (USD)	P/E	P/B	P/S	ROE LF	ROA LF	EV / EBITDA Adj
Median	*14 253,11*	*25,20*	*2,06*	*2,73*	*8,25*	*3,52*	*9,73*
KAZ MINERALS PLC	5 521,05	8,62	2,37	2,34	28,52	9,86	6,51
ENCORE WIRE CORP	1 440,47	18,97	1,71	1,13	9,41	8,23	10,75
POONGSAN CORP	831,79	12,89	0,64	0,36	5,09	2,81	7,24
FREEPORT-MCMORAN INC	49 194,55	98,93	4,83	3,46	6,15	1,44	16,12
HUDBAY MINERALS INC	1 996,98	#N/A N/A	1,17	1,83	-8,15	-3,17	9,79
CAPSTONE MINING CORP	1 402,41	166,40	1,80	2,97	1,63	0,92	13,94
FIRST QUANTUM MINERALS LTD	14 253,11	#N/A N/A	1,61	2,73	-1,97	-0,73	11,95
JINDUICHENG MOLYBDENUM CO -A	2 948,77	106,59	1,57	2,54	1,43	1,23	#N/A N/A
BHP GROUP LTD	166 823,76	25,69	3,66	3,86	14,35	6,78	7,48
MMC NORILSK NICKEL PJSC	52 046,59	15,38	12,92	3,35	86,33	16,85	7,52
RIO TINTO PLC	130 992,69	13,06	2,71	2,86	22,31	10,55	6,06
ANGLO AMERICAN PLC	53 106,21	25,20	2,06	1,70	8,25	3,52	10,09
SOUTHERN COPPER CORP	54 826,36	32,97	7,59	6,87	22,38	9,42	14,48
ANTOFAGASTA PLC	23 803,80	47,71	3,07	4,64	6,69	3,24	9,67
KGHM POLSKA MIEDZ SA	10 092,61	21,37	1,83	1,63	8,76	4,38	9,11

Source: Bloomberg, Company Data, Team Estimates

Appendix B: Valuation

APPENDIX B-1: DCF VALUATION

$ million	2020F	2021F	2022F	2023F	2024F	2025F
EBIT	766	804	845	887	931	978
Depreciationand	979	979	979	979	979	979
Taxes	(153)	(161)	(169)	(177)	(186)	(196)
NWC	(384)	(403)	(423)	(445)	(467)	(490)
Capex	(823)	(823)	(823)	(823)	(823)	(823)
Unlevered FCFF	386	397	409	422	435	449
Terminal Value						10200
Total FCF	386	397	409	422	435	10649
Discount Period (years)		1	2	3	4	5
Discount Factor		0.93	0.87	0.82	0.76	0.71
PV of Unlevered FCFF		371	357	344	332	7589

Source: Company Data, Team Analysis

TERMINAL VALUE CALCULATION (IN PHP MN)	
WACC	7,01%
Growth to Perpetuity	2.50%
Terminal Value at 2028E	10200
PV of Terminal Value	10649
Enterprise Value	**8993**
Less: Net Debt	3300
Equity Value	5693
Shares Outstanding (mn)	473
Target Price	**12**

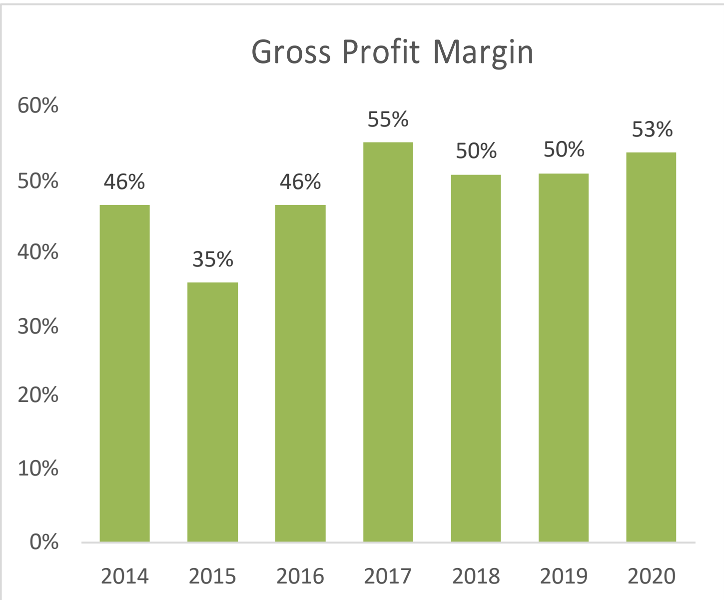
Source: Company Data, Team Analysis

Since Kaz Minerals does not issue bonds nor have credit ratings, we estimated its cost of debt based on arithmetic average interest rate of its borrowings. Also Market value of Debt was based on Book value of Debt.

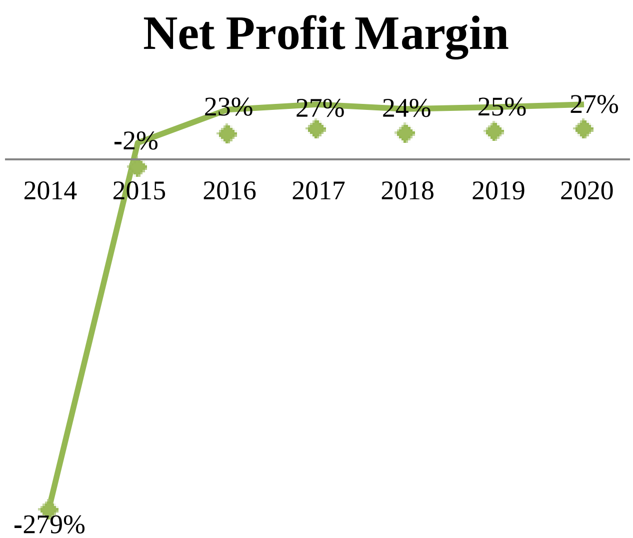
Appendix C: Financial Analysis

APPENDIXC-1:VERTICAL INCOME STATEMENT ANALYSIS

	2014	2015	2016	2017	2018	2019	2020
Revenue	100%	100%	100%	100%	100%	100%	100%
Cost of Goods Sold	54%	65%	54%	45%	50%	50%	47%
Gross Profit	46%	35%	46%	55%	50%	50%	53%
Sales/Marketing/Advertising Expenses	3%	4%	4%	4%	4%	4%	4%
Write-Down/Impairment of Assets	16%	2%	0%	1%	1%	0%	0%
General and Administrative Expenses	16%	19%	14%	6%	5%	6%	6%
Other Operating Income	-1%	-3%	-1%	-0,2%	-0,2%	-0,4%	0%
Operating Income	11%	14%	28%	43%	39%	41%	43%
Foreign Exchange	28%	9%	-5%	0%	-0,1%	1%	3%
Finance income	-1%	-1%	-1%	-2%	-2%	-1%	-1%
Finance costs	4%	4%	6%	10%	11%	9%	6%
Income Before Income Taxes	-20%	2%	29%	35%	30%	32%	34%
Income Tax Expense (Benefit)	8%	4%	6%	8%	6%	7%	7%
Discontinued Operations Loss/(Benefit) - Net	252%	0%	0%	0%	0%	0%	0%
Net Income	-279%	-2%	23%	27%	24%	25%	27%



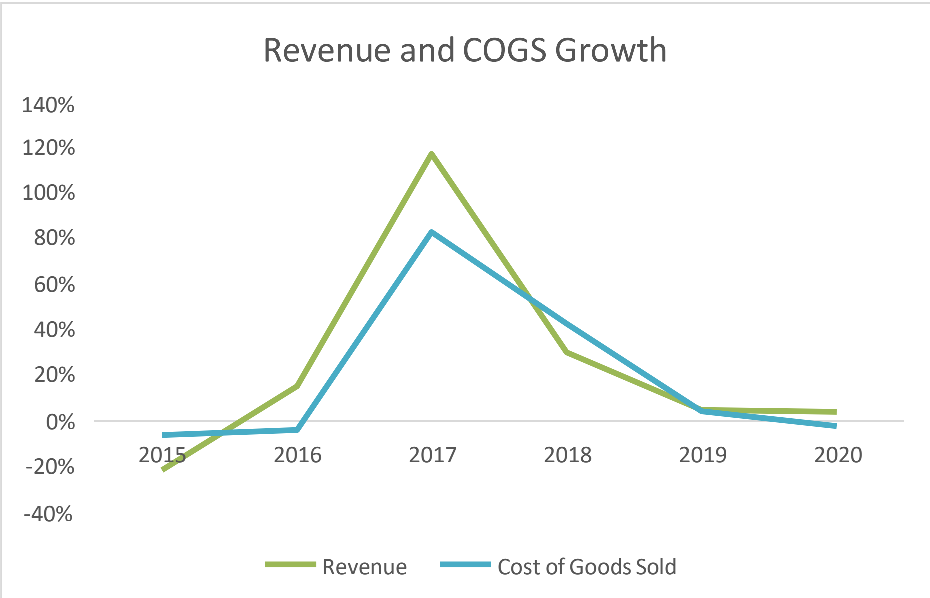
Source:CompanyData,TeamAnalysis



Appendix C: Financial Analysis

APPENDIXC-2:HORIZONTAL INCOME STATEMENT ANALYSIS

	2015	2016	2017	2018	2019	2020
Revenue	-21%	15%	117%	30%	5%	4%
Cost of Goods Sold	-6%	-4%	83%	43%	4%	-2%
Gross Profit	-39%	50%	157%	19%	5%	10%
Sales/Marketing/Advertising Expenses	8%	19%	116%	36%	-3%	3%
Write-Down/Impairment of Assets	-89%	200%	567%	45%	-83%	-40%
General and Administrative Expenses	-9%	-17%	4%	6%	15%	15%
Other Operating Income	340%	-82%	0%	0%	125%	-100%
Operating Income	-4%	142%	228%	19%	8%	9%
Foreign Exchange	-74%	-163%	100%	0%	567%	245%
Finance income	-10%	0%	233%	10%	-45%	-22%
Finance costs	-29%	67%	267%	48%	-20%	-25%
Income Before Income Taxes	-107%	1733%	164%	11%	13%	11%
Income Tax Expense (Benefit)	-63%	79%	209%	-1%	17%	6%
Discontinued Operations Loss/(Benefit) - Net	-100%	0%	0%	0%	0%	0%
Net Income	-99%	-1575%	153%	14%	12%	12%

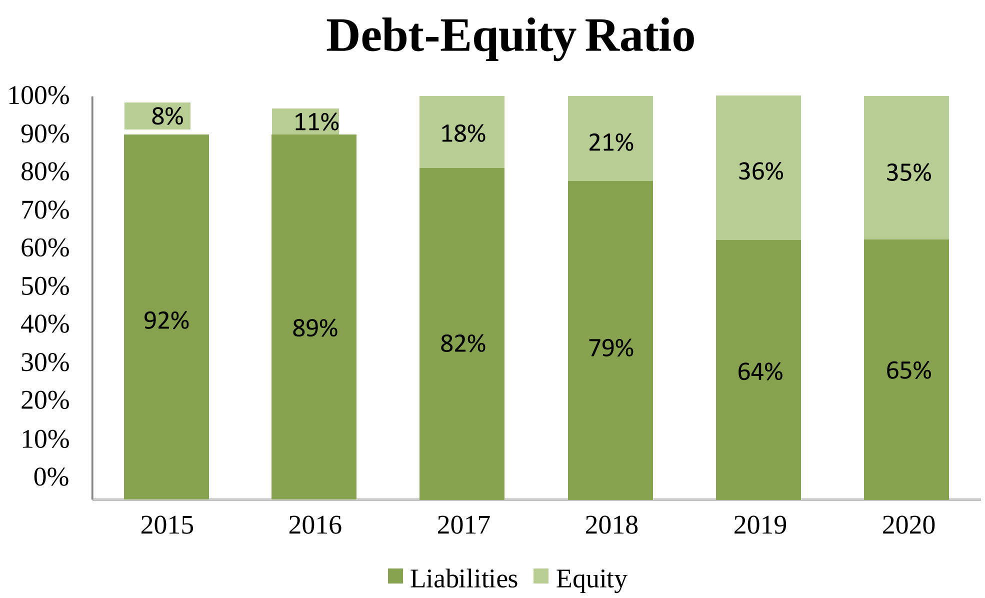


Source:CompanyData,TeamAnalysis

Appendix C: Financial Analysis

APPENDIX C-3:VERTICAL BALANCE SHEET ANALYSIS

	2015	2016	2017	2018	2019	2020
Total Assets						
+ Cash, Cash Equivalents& STI	30%	22%	32%	29%	9%	19%
+ Accounts & Notes Receiv	1%	2%	2%	3%	3%	2%
+ Inventories	3%	5%	6%	9%	9%	9%
+ Other ST Assets	1%	1%	2%	2%	3%	3%
Total Current Assets	35%	30%	43%	43%	24%	33%
+ Property, Plant& Equip, Net	58%	61%	53%	51%	69%	63%
+ LT Investments & Receivables	0,05%	0,00%	0,00%	0,06%	0,07%	0,07%
+ Other LT Assets	8%	9%	4%	7%	6%	4%
Total Noncurrent Assets	65%	70%	57%	57%	76%	67%
Total Assets	100%	100%	100%	100%	100%	100%
Liabilities & Shareholders' Equity						
+ Payables & Accruals	6%	6%	5%	6%	6%	4%
+ ST Debt	7%	7%	7%	11%	9%	8%
+ Other ST Liabilities	0,4%	0,3%	6%	2%	0,4%	0,4%
Total Current Liabilities	14%	13%	18%	18%	15%	12%
+ LT Debt	77%	68%	62%	58%	45%	49%
+ Other LT Liabilities	1%	8%	3%	3%	3%	3%
Total Noncurrent Liabilities	78%	76%	64%	61%	49%	52%
Total Liabilities	92%	89%	82%	79%	64%	65%
+ Share Capital & Share Premium	68%	56%	50%	56%	50%	44%
- Treasury Stock	0%	0%	0%	0%	0%	0%
+ Retained Earnings	-10%	-5%	4%	14%	20%	26%
+ Capital Reserves	-50%	-40%	-36%	-49%	-36%	-36%
Equity Before MinorityInterest	8%	11%	18%	21%	35%	34%
+ Minority/Non Controlling Interest	0,1%	0,1%	0,1%	0,1%	1%	1%
Total Equity	8%	11%	18%	21%	36%	35%
Total Liabilities & Equity	100%	100%	100%	100%	100%	100%



Source:CompanyData,TeamAnalysis

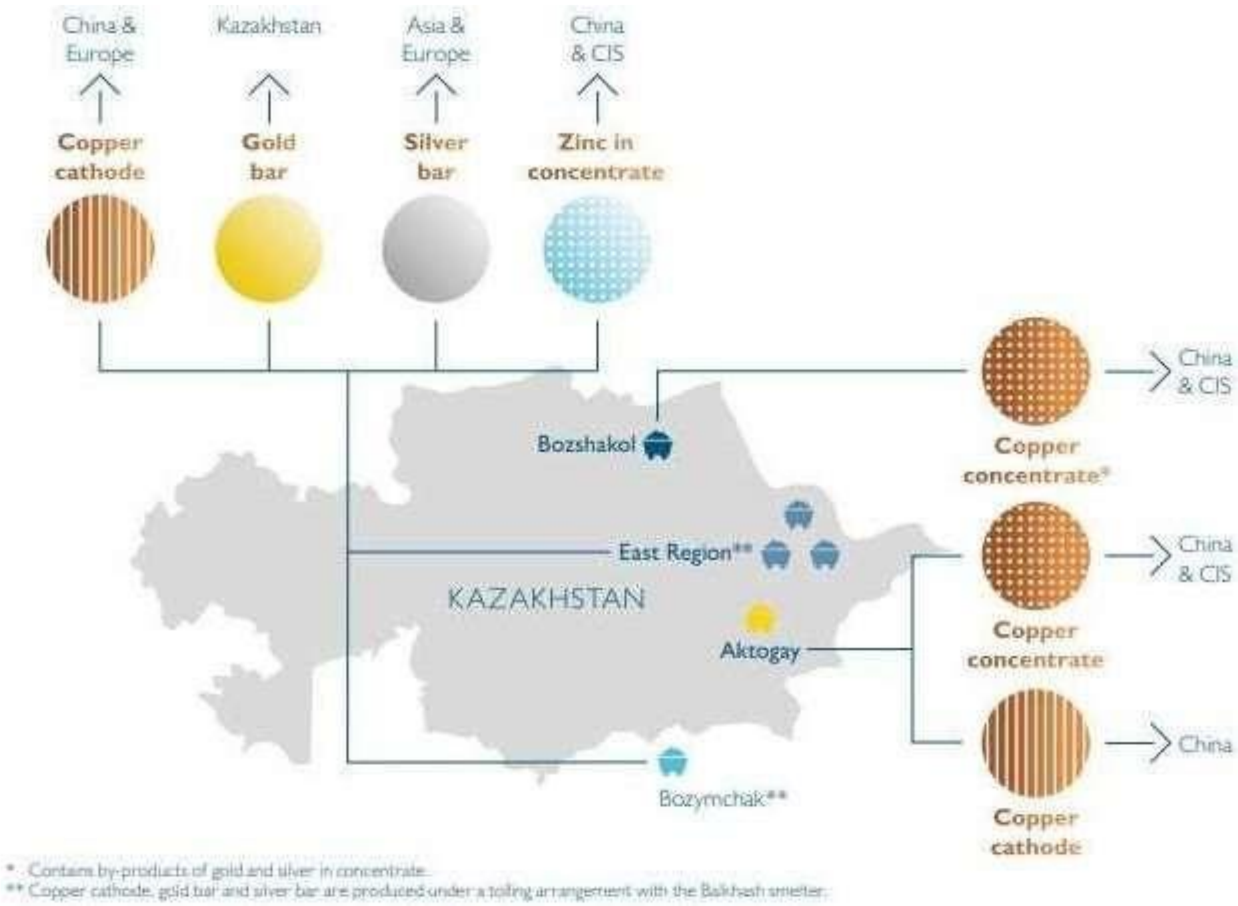
Appendix C: Financial Analysis

APPENDIXC-4:HORIZONTAL BALANCE SHEET ANALYSIS

	2015	2016	2017	2018	2019	2020
Total Assets						
Cash, Cash Equivalents & STI	-41%	-11%	64%	-19%	-63%	140%
Accounts & Notes Receiv	-86%	357%	26%	-4%	39%	-12%
Inventories	-23%	119%	45%	22%	26%	11%
Other ST Assets	10%	9%	56%	14%	85%	-9%
Total Current Assets	-42%	5%	58%	-11%	-31%	53%
Property, Plant & Equip, Net	-13%	29%	-4%	-14%	64%	3%
LT Investments & Receivables	100%	-100%			33%	25%
Other LT Assets	-33%	39%	-45%	37%	14%	-22%
Total Noncurrent Assets	-16%	30%	-9%	-10%	59%	1%
Total Assets	-27%	22%	11%	-10%	20%	14%
Liabilities& Shareholders' Equity						
Payables & Accruals	-43%	22%	-10%	0%	28%	-16%
ST Debt	67%	9%	26%	29%	1%	-3%
Other ST Liabilities	60%	-6%	1973%	-68%	-77%	35%
Total Current Liabilities	-10%	14%	54%	-9%	1%	-7%
LT Debt	10%	8%	0%	-16%	-5%	22%
Other LT Liabilities	-5%	577%	-62%	-3%	38%	11%
Total Noncurrent Liabilities	10%	18%	-6%	-15%	-3%	22%
Total Liabilities	6%	18%	2%	-14%	-2%	15%
Preferred Equity and Hybrid Capital						
Share Capital & Share Premium	0%	0%	0%	0%	8%	0%
Retained Earnings	4%	-42%	-182%	238%	77%	48%
Capital Reserves	-593%	2%	0,4%	-21%	12%	-16%
Equity Before Minority Interest	-85%	67%	87%	6%	101%	12%
Minority/Non Controlling Interest	0%	0%	0%	33%	1375%	-2%
Total Equity	-85%	66%	86%	6%	106%	11%
Total Liabilities & Equity	-27%	22%	11%	-10%	20%	14%

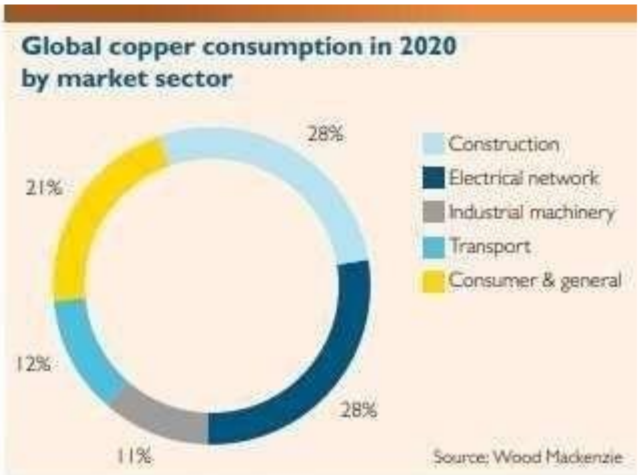
Source:CompanyData,TeamAnalysis

Appendix D: Core Markets of Kaz Minerals

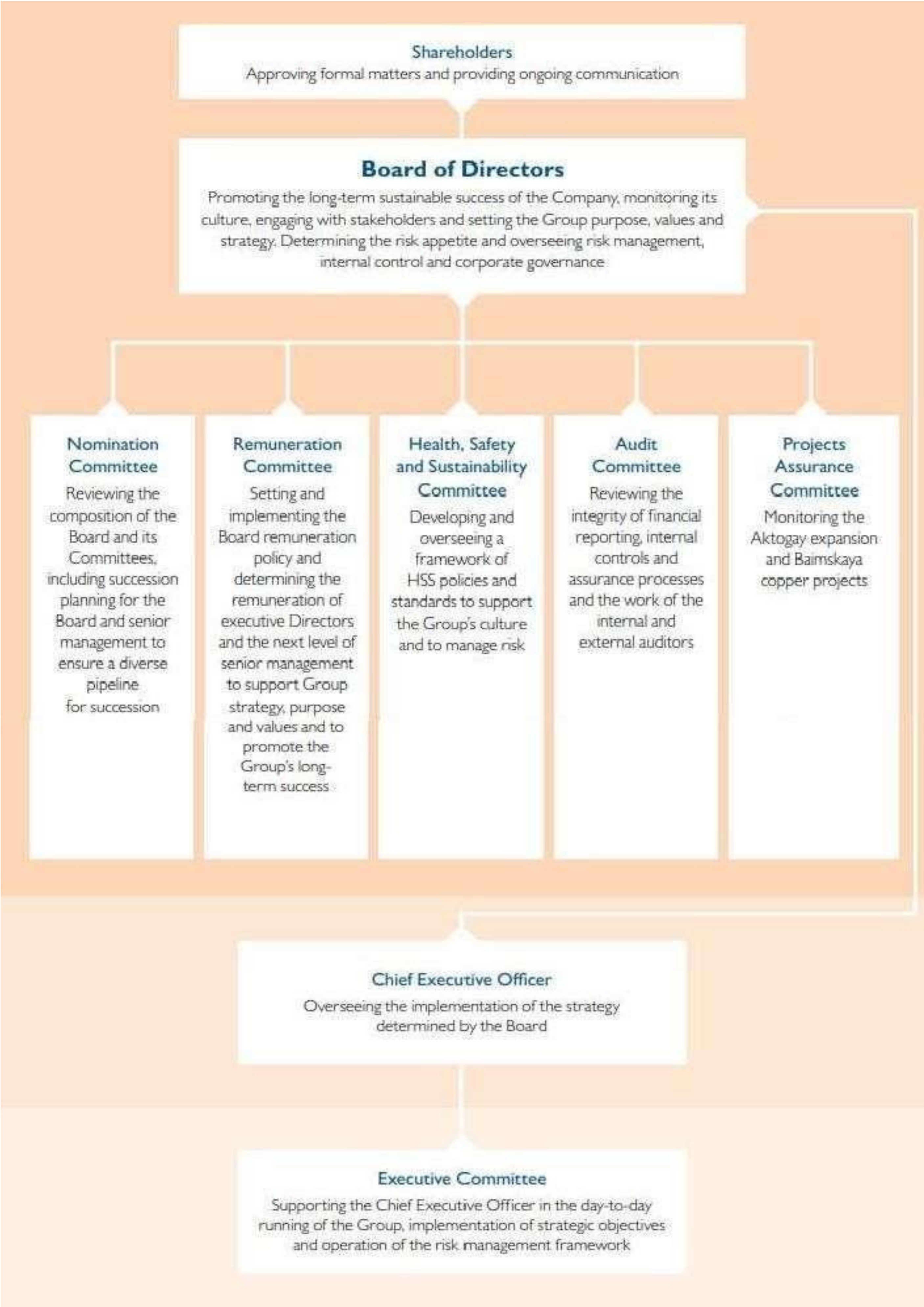


Source:CompanyData

Appendix E: Market Performance



Appendix F: Corporate Governance Framework



Source:CompanyData

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