CALCULATING INTRINSIC VALUE OF STOCK: SUU JOINT STOCK COMPANY

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Abstract: In order to develop our nation's financial market, it is crucial to improve the securities market indicators. In recent years, people's knowledge of securities has been broadened and government has supported the market by legal policy. As result, the Mongolian Stock Exchange TOP-20 index has increased by 25 percent in the first quarter of 2018. Investor's decision and company's intrinsic value of stock are key moving impetus to stock market's development.

Key words: Discounted Cash Flow, Free Cash Flow to Firm, Comparable valuation, Enterprise Value to Earnings Before Interest Tax Depreciation and Amortization multiples, weighted average cost of capital, terminal value.

Хураангуй: Үнэт цаасны зах зээлийг хөгжүүлэх нь манай улсын санхүүгийн зах зээлийн хөгжилд ихээхэн чухал юм. Сүүлийн жилүүдэд иргэдийн үнэт цаасны талаарх мэдлэг өргөжин, төрөөс хууль эрх зүйн бодлогоор дэмжлэг үзүүлсэний улмаар Монголын Хөрөнгийн Биржийн ТОП-20 индекс 2018 оны I улиралд өмнөх оноос 25 хувиар өссөн үзүүлэлттэй байна. Хөрөнгийн зах зээлийг хөгжилд хөрөнгө оруулагчдын шийдвэр гаргалт мөн компанийн бодит үнэ цэнэ чухал ач холбогдолтой.

Түлхүүр үгс: Дискаунтчилагдсан Мөнгөн Урсгал (Free Cash Flow to Firm), Харьцааны аргачлал (Enterprise Value to Earnings Before Interest Tax Depreciation and Amortization multiples), жигнэсэн дундаж капиталын өртөг, терминал үнэ цэнэ.

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Introduction

Business description

Mongolian dairy processor, SUU JSC (the "Company" or "SUU") has long lasting experience in the industry and has managed to become the top national player in the dairy market with 48% market share in 2016.

SUU has relatively few product lines (over 70 products) under four main segments: milk, yogurt, curds, ice cream, and others.

- *General information* - SUU was established in 1958 as the first dairy producer in Mongolia with technical and financial assistance from former Soviet Union. The Company was wholly state owned until 1992 when it was privatized. Since then the Company remained as the largest dairy producer in the country with sales revenue around MNT 41.64 billion in 2016. The factory is equipped with modern processing technology and environmental friendly packaging line. SUU seeks to align traditional dairy usage with modern technology and maximize consumer satisfaction, aid personal health and development through their over 2000 distribution channels.
- *Brand and Products* - By the 2014, SUU had over 150 products lines however in the next years, they changed their product strategy in order to concentrate on quality rather than quantity and to decrease cost of sales. We noted that the Company implemented Quality Management System - ISO 9001:2008 and ISO 9001:2015.

We have segmented SUU's main products using Boston Consulting Group's matrix theory on Marketing textbook, Bayarmaa. D, 2007.

- *Milk and yogurt segment (Cash cow)* - The main and branded products which SUU produces are milk and yogurt. These two products are generating majority of the revenue since the Company established. Even though, these products' growth rate is relatively low, market share is considerably high (milk- 83%, yogurt-45%). Our team is assuming that SUU will maintain its market share using their competitive advantages in milk and yogurt market segments.
- *Long-life milk and Ice-cream segment (Star)* - Although SUU is a new player in the long-life milk market segment, the Company is benefitting from their long-established brand name. To take this and the fact that they achieved 7% market share in first six months, we estimated the Company will be able to achieve 30% market share in 5 years, i.e by 2022. In addition, the Company is diversifying conventional ice-cream type and enriching ingredients with domestic yogurt and berries. Furthermore, ice-

cream sales grew by 44% in 2016 as a result of the Company's strategy to acquire additional market share in this product segment.

- *Dried curds and butter segment (Dog)* - These products are produced using the concentration of milk and still processed by traditional methods. Occasionally the Company faces excess demand for these products specially during "Tsagaan Sar" (Mongolian traditional celebration) when demand for both Milk and Dried curds & butter segments increase. In such instances, the Company opts for more production of milk & yogurt and less production of dried curds and butter.
- *Others (Question mark)* - Based on financial statements and data provided by the Company, it is understood that SUU ceased production of some products including juice since 2015.

Governance

The leading authority of SUU is shareholders' meeting. Board of directors is one-tier structured and consists of 12 members in total and out of which 4 is outside directors. There are main three committees namely Audit, Nomination and Compensation committee working beside the Board.

There are 3 major individual shareholders whose shares comprise about 94% of total shares are all board members. Chairman of Boards, Mr Ganbaatar is also the President of Max Group, which is a related party operating in trade, service, construction and mining sectors.

Furthermore, amongst the major shareholders, shares of Mr Ganbaatar and Jamiyan, who are brothers, represents 71.75% which is a controlling share.

Table 1. Shareholders' information

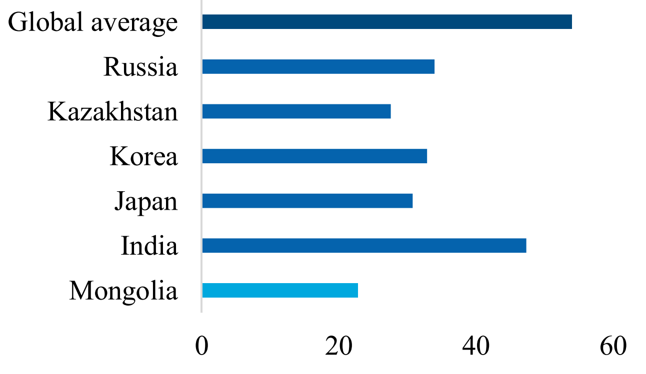
NAME	SHARE	POSITION	BOARD MEMBER
Jamiyan.D	38.69%	Managing Director at "Top Buleg LLC"	Yes
Ganbaatar.D	33.06%	President at Max Group	Yes
Tuvshintugs.B	22.06%	Director at IMP LLC	Yes
Others	6.19%	-	-
Total	100%		

Source: Mongolian Stock Exchange

Industry overview & competitive positioning

- *Global trend* - Dairy is the largest and fastest-growing category in the global food and beverages sector according to an analysis by Boston Consulting Group in 2016. Boston Consulting Group cites analysts who suggest the market could grow by 10% a year for the next five years (Source: 16 Aug 2016 "CEOs of dairy companies are seeing growth" www.chiefexecutive.net). The growth isn't occurring so much in mature markets such as the U.S. and Europe where volumes are actually stagnating. Whereas, dairy products consumption in developing countries is expected to grow to align western life-style. Moreover, compared to developing countries' consumption per capita, Mongolian consumption per capita maintains low, therefore Mongolian dairy industry has a potential to grow further.

Figure 1. Global trend (liter)



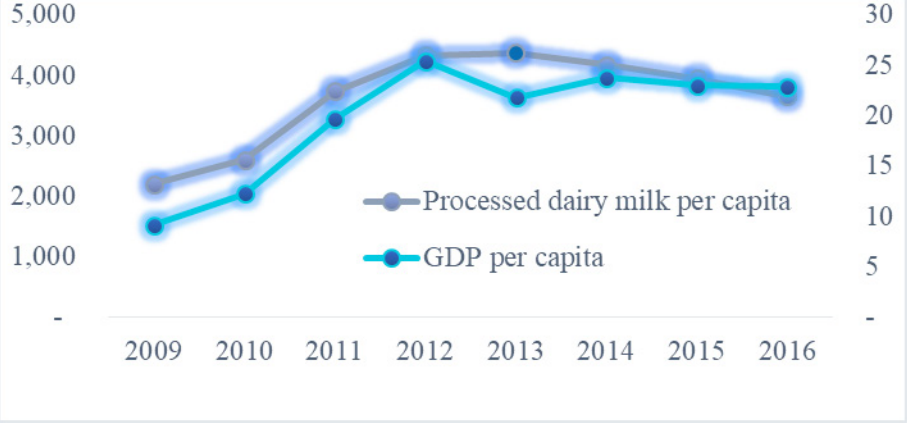
Source: Canadian Dairy Information Sector data

– *Mongolian dairy industry* - Mongolia has a rich history of nomadic tradition and milk has been inseparable ingredient to Mongolian's daily nutrition for many centuries. In modern times, milk is determined as strategic food in Law in Food of Mongolia thus encouraging dairy products' consumption amongst population. Even though, only 8% of the entire milk consumption is coming from factory produced milk and the remaining amount directly comes from traditional dairy farmers and herders through retailers. Hence, processed dairy industry has considerable market capacity to grow further. In conclusion, we assumed that the processed dairy industry will grow with CAGR of 5.63% per annum up to 2022. This growth is mainly explained by the consumption per capita growth with CAGR of 4.07%. The reason for growth in processed milk consumption is derived by the following factors.

Key demand drivers

– *Mongolian economy growth* - Mongolian economy mainly consists of mining, agriculture, construction and tourism industries. In the previous decades, the economy has become increasingly reliant on the mining sector—its share of GDP today stands at 20%. The economy picked up in 2017, primarily on the back of positive developments in the mineral sector, and the growth outlook remains positive for 2017 and 2018. In 2018, Moody's upgraded Mongolian credit rating from Caa1 (Stable) to B3 (Stable). Therefore GDP per capita is expected to increase as we have positive economic growth expectation as described above. We have found that GDP per capita is highly correlated (0.95) with per capita milk consumption.

Figure 2. GDP and per capita milk consumption
(left hand-USD, right hand-liter)



Source: Authors' calculation based on SUU JSC's financial report

– *Consumer preference* - Consumers are demanding healthy and nutritious products. Dairy products are nutrient-dense foods supplying energy and contain significant amounts of protein and micronutrients including calcium, magnesium, selenium, riboflavin, vitamins B5 and B12.[7] Most countries with dietary guidelines recommend dairy product as a component in a balanced diet. The result of our survey shows that there is strong trend to consume factory processed milk rather than raw milk supplied from agriculture or from the retailers (shadow market) because of product quality. Mongolian General Agency for Specialized Investigation stated that water

[7] Food and Agriculture Organization of the United Nations report of 2013

and brucellosis (animal infectious disease) has been found in raw milk[8]. It has been observed that consumers prefer products which are organic, healthy and hygiene, and therefore we believe that processed milk market have opportunity to expand and taking over the raw milk market segment in the future.

- *Urbanization* - Over the past three decades, half the population has concentrated in the city due to large migration, distancing herders from the traditional herding and milk consumption from their own cows. Consequently, it gave rise to processed milk industry. Poorly organized urbanization is causing dramatic air pollution rise to the level which is dangerous to human health. Fine particulate matter (PM2.5) has been recorded as 80 times higher than World Health Organization guideline, and the organization predicts the situation will worsen over the next ten years[9]. In order to protect themselves and their children, people are becoming increasingly aware of healthy lifestyle which includes food they consume and milk is a product which has detoxification effect.
- *Regulations* - Dairy industry operates in favorable regulatory environment compared to other industries in the same sector. Mongolian government supports dairy producers through laws and legislations such as discounting corporate income tax of dairy producers by 50% and setting volume quota in dry milk import. The Government banned liquid milk import completely in 2017[10] with the aim of supplying local market with domestic capacity. In addition, Ministry of Food and Agriculture has been lowering and exempting taxes on equipment and plants. In purchasing plants and equipment, SUU was able to take MNT 6 billion loan with 8% interest rate which is two times lower than commercial rate in 2014.

The Company has been maintaining a leading position in Mongolian dairy industry for decades and listed on TOP-100 companies continuously since 2013. The core reasons of this success are the Company's production factors: Enterprise, Capital, Land and Labor.

- Enterprise – SUU has been operating in the industry for 60 years since 1958, during this time, the Company has successfully accumulated their know-how and created brand recognition.
- Capital – SUU has comprehensive modern dairy products processing technology including plants and machinery. In addition, one of the biggest

8 http://eng.inspection.gov.mn/

9 http://www.wpro.who.int/mongolia/publications/20180228_policy_brief_on_air_pollution.pdf

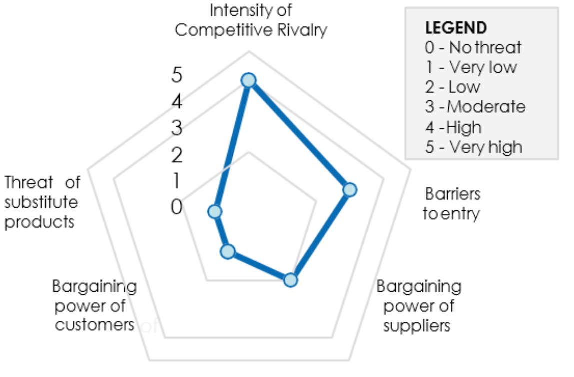
10 Declaration of National Food Safety Commission's first meeting leaded by Prime Minister of Mongolia, Erdenebaatar. J

advantage that SUU possesses is their logistic system. In 2015, SUU acquired Max Agro (farm) which has annual capacity of approximately 1-million-liter milk from 134 dairy cows and they supply milk only to SUU.

– Land – SUU owns land of 85,362 square meter in major two cities and other rural areas which are valued at MNT 1.7 billion in 2016.

Porter's five forces analysis

Figure 3. Porter's five forces analysis



Source: Authors' analysis based on SUU JSC's financial report

The Company follows low price strategy and expanding market share in long-life milk and ice-cream segments whilst keeping their high market share to the total dairy industry. Nevertheless, apart from main competitors especially APU JSC, one important category determined as a potential threat is shadow market that challenges SUU with low price. Even though, consumers are preferring dairy products with high quality and hygiene factors. The substituting product market for dairy products is rather underdeveloped and it targets a small segment of consumers. Even though open to innovation, customers are aware of the differences in nutritional profiles and remain loyal to dairy products. SUU can consider this alternative as an opportunity to secure a new market share.

In the summary, SUU has a strong competitive position in the total dairy industry, furthermore, the Company is potential to expand their market share in significant segments, thus, our team is determining that SUU is able to make continuous improvement in their operation in long-term.

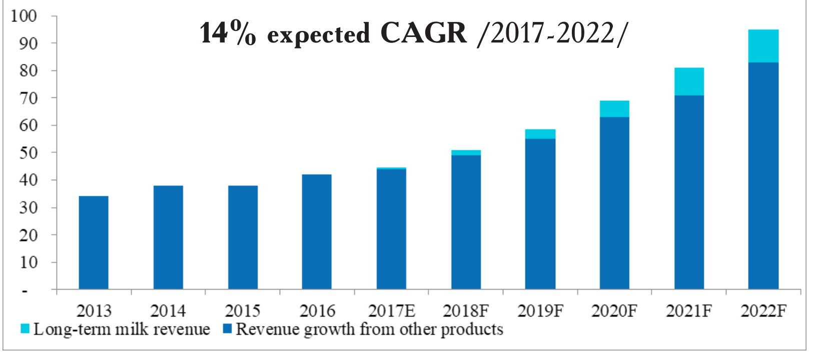
Herfindahl-Hirschman Index (HHI)

In addition, we calculated HHI which is a commonly accepted measuring index of market concentration. In 2015 SUU's HHI was measured at 2,868 and it increased to 3,144 in 2016, which means Mongolian dairy industry is becoming more concentrated. Even though, there are few competitors, they are each thriving to get more market share, thus SUU should prevent from losing market share to the rivalry.

Financial analysis

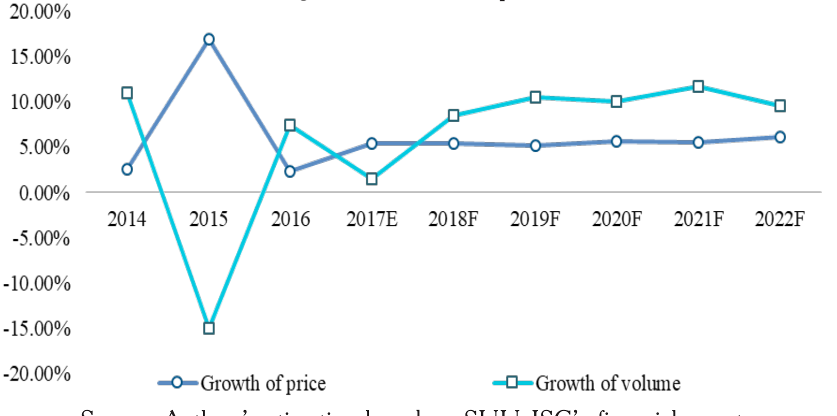
Revenue growth - In our estimation, revenue increases by 14% CAGR annually until 2022. It is explained by increase in sales volume and price.

Figure 4. Revenue growth (in billion MNT)



Source: Authors' estimation based on SUU JSC's financial report

Figure 5. Sales and price



Source: Authors' estimation based on SUU JSC's financial report

- Price forecast - Sales price is projected to grow with CAGR 5.56% until 2022. We have found that there is direct correlation between sales price and the direct raw material cost which is including direct raw milk cost and other raw materials. We assumed that the company keep historical ratio between sales price and direct raw material cost.
- The purchasing price of direct raw milk depends on weather condition and milk collecting race. We used historical price growth in our assumption and we assumed that the competition will not decrease.
- Other direct raw material costs are influenced by inflation rate.
- Sales volume forecast - Sales volume is projected to grow with CAGR 8.56% until 2022. Our volume forecast was driven by SUU's total dairy market share which will increase up to 56% by 2022 and total dairy market growth with CAGR 5.63%.

Gross margin - SUU's gross margin fell constantly for the last 4 years. Core reason for this result is increased cost of direct raw material and. For example, cost of collected milk from herders increased significantly (25.5%) in 2015, which is caused by drought in the year. We projected that direct cost will increase at historical CAGR of 10%. SUU sales volume will grow in the future and we expected that production capacity will remain constant. In result, the fixed cost per unit will gradually decline, thus gross margin will increase.

EBITDA margin - EBITDA margin is falling year on year, mainly due to growing labor costs and selling (marketing) expenses. In the latest four years, labor costs raised at a CAGR of 10%, we assumed that SUU hired more employees in accordance with the Company's frame of expanding strategy. In following six years, we anticipated that the Company would not invest in such activities, thus, we tied the labor cost with forecasted inflation rates.

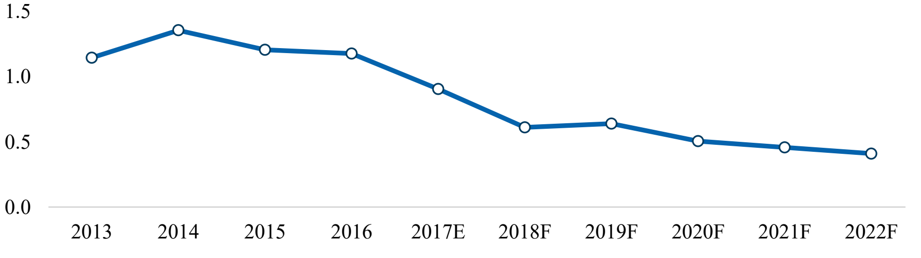
Earning outlook - In the year 2013-2016, the currency exchange loss averaged about MNT 2.5 billion a year and it was affecting net profit by -41% on average. In 2017, SUU issued bond through Mongolian Stock Exchange (MSE). Using MNT 6 billion raised by the bond, SUU paid the total long-term USD loans. Therefore, currency exchange risk will be insignificant in the future. As a consequence, the Company's net profit looks favorable in our forecast period.

Cash conversion cycle -The Company makes majority of their sales under JIT system, which results in minimal accounts receivable. The Company's DSO decreased by 5 days from 2014 to 2015 and by additional 2 days in 2016. In addition, the Company purchases milk from herders in cash, therefore, the accounts payable's balance is kept low. In 2015, SUU acquired Max Agro cow farm. SUU purchases milk from Max Agro on credit, and as a result, days payable outstanding significantly increased. DIO increased by 29 days from 2013 to 2014 and henceforth showed decreasing trend, reaching 81 days in 2016.

CAPEX - SUU uses 18%, 9%, 46% and 66% of their factory capacity in milk, yogurt, curd and ice-cream segments, respectively. As the Company underutilizes its capacity, we assume the Company will not incur any major additional capital expenditures and forecasted that the capital expense is equal to the amount of depreciation expense.

Capital structure - Debt to Equity ratio is decreasing gradually over the years due to repayment of long term loan. In the near future, the Company has no need to change or improve the purchased equipment, thus our team is assuming that SUU would not get further long-term loan. Short-term bank loan is mainly spent in working capital needs therefore we assumed short-term loan will increased by working capital changes (Debt equity ratio).

Figure 6. D/E ratio (Forecast)



Source: Authors' estimation based on SUU JSC's financial report

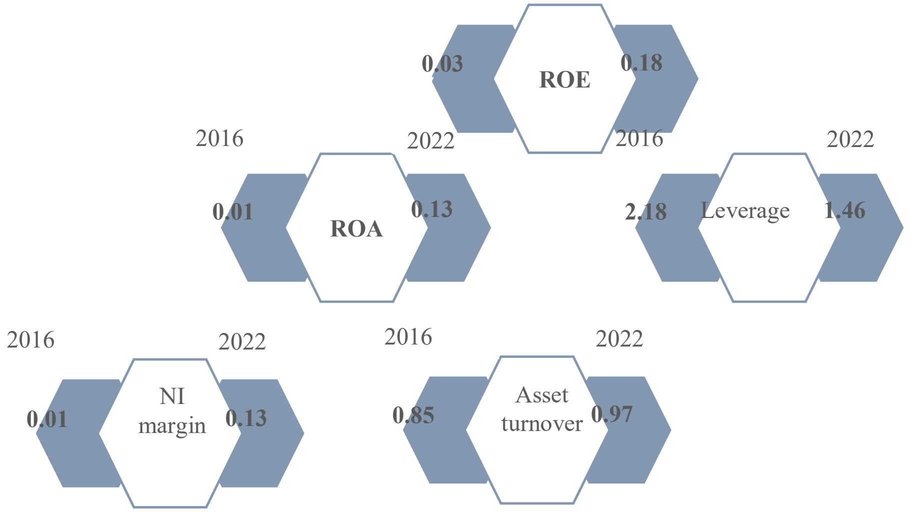
Table 2. CAPEX forecast

	2017E	2018F	2019F	2020F	2021F	2022F
CAPEX	2,272,938	2,488,921	4,226,220	3,136,958	3,438,473	3,769,835

Source: Authors' estimation based on SUU JSC's financial report

Du Pont analysis - SUU's ROE is expected to grow until 2022. In our team forecast, the leverage was estimated to decrease but the constant growth in the Company's profitability is the reason of the ROE improvement. Asset turnover radio decreased at a CAGR of 8.9% from 2013 to 2015 but picked up by 8% in 2016, representing efficiency enhancement of the Company.

Figure 7. Du Pont analysis



Source: Authors' estimation based on SUU JSC's financial report

Methodology

- Discounted Cash Flow (Free Cash Flow to Firm)[11]
- Discounted cash flow (DCF) valuation views the intrinsic value of a security as the present value of its expected future cash flows.
- Free cash flow to the firm is the cash flow available to the company's suppliers of capital after all operating expenses (including taxes) have been paid and necessary investments in working capital (e.g., inventory) and fixed capital (e.g., equipment) have been made. FCFF is the cash flow from operations minus capital expenditures. A company's suppliers of capital include common stockholders, bondholders, and sometimes, preferred stockholders. The equations analysts use to calculate FCFF depend on the accounting information available.
- 2.2.1. Present Value of FCFF

$$\text{Firm value} = \sum_{t=1}^{\infty} \frac{FCFF_t}{(1+WACC)^t}$$

FCFF is the cash flow available to all suppliers of capital, using WACC to discount FCFF gives the total value of all of the firm's capital. The value of equity

[11] CFA Institute Investment Series, Equity Asset Valuation third edition by Jerald E.Pinto, CFA, Elaine Henry, CFA, Thomas R.Robinson, CFA and John D.Stowe, CFA, page 298

is the value of the firm minus the market value of its debt:

Equity value = Firm value − Market value of debt

The cost of capital is the required rate of return that investors should demand for a cash flow stream like that generated by the company being analyzed. WACC depends on the riskiness of these cash flows. The calculation and interpretation of WA CC were discussed in the reading on return concepts—that is, WA CC is the weighted average of the after (corporate) tax required rates of return for debt and equity, where the weights are the proportions of the firm's total market value from each source: debt and equity. As an alternative, analysts may use the weights of debt and equity in the firm's target capital structure when those weights are known and differ from market value weights.

$$\text{WACC} = \frac{MV\ (Debt)}{MV\ (Debt)+MV(Equity)} r_d(1-Tax\ rate) + \frac{MV(Equity)}{MV(Debt)+MV(Equity)} r$$

– Comparable (EV/EBITDA)[12]

Enterprise value to Earnings before interest tax depreciation and amortization is by far the most widely used enterprise value multiple.

Earlier, EBITDA was introduced as an estimate of pre-interest, pretax operating cash flow. Because EBITDA is a flow to both debt and equity, as noted, defining an EBITDA multiple by using a measure of total company value in the numerator, such as EV, is appropriate. Recall that enterprise value is total company value (the market value of debt, common equity, and preferred equity) minus the value of cash and short-term investments. Thus, EV/EBITDA is a valuation indicator for the overall company rather than solely its common stock. If, however, the analyst can assume that the business's debt and preferred stock (if any) are efficiently priced, the analyst can use EV/EBITDA to draw an inference about the valuation of common equity.

Data

We used SUU JSC's audited financial reports of 2014, 2015 and 2016. In addition, historical data of Mongolian inflation rate, GDP, real GDP and IMF forecasted data were used in our calculation. Furthermore, processed dairy products consumption data was used in our analysis.

[12] CFA Institute Investment Series, Equity Asset Valuation third edition by Jerald E.Pinto, CFA, Elaine Henry, CFA, Thomas R.Robinson, CFA and John D.Stowe, CFA, page 426

Results

Discounted Cash Flow to Firm model and Relative Multiples Valuation (Enterprise Value to Earnings Before Interest, Taxes, Depreciation and Amortization) methodologies were utilized by 70% and 30% respectively in arriving our target price of MNT 315. 70/30 proportion mix is determined by its' comparative advantages versus disadvantages. We have considered their reliability, possibility to objectively forecast and relevance of available data.

Intrinsic Valuation (Free Cash Flow to Firm)

Based on our FCFF valuation, the estimated price is MNT 279.8. This model was selected because SUU has a stable Free Cash Flow to Firm which is expected to increase over time as we estimated. In general, we considered that cash-flow generation and profitability represent long term financial viability of the Company. Our FCFF method consists of a two-stage growth model. In the first stage, our team forecasted the Company's financial data for the next six years starting from 2017 to 2022. In the second stage, we assumed that SUU's financial performance is expected to increase with terminal value of 6.5% per annum.

Weighted Average Cost of Capital:

- Cost of equity was calculated through the Capital Asset Pricing Model framework (CAPM). We used different WACC as we estimated capital structure will be different in each year. We obtained the cost of equity of 18.94% based on CAPM. The most recent long-term government bond yield was used as a risk-free rate that is estimated at 15.5%. We calculated SUU's three years monthly returns versus TOP 20 index`s return in a regression analysis, resulting 0.56 beta correlation. Afterwards, raw beta was adjusted to 0.71 using BLUME method. Market return is calculated as the eight-year average return of TOP 20 index.
- Cost of debt was calculated using short-term bank loan - weighted average rate in 2016. (Before tax: 15.4%, after tax: 10.5%)

Terminal Growth Value:

The terminal growth rate was calculated by 10 years backward and 5 years forward average Mongolian real GDP growth rate of 6.5%. It is high performance but the core reasons for choosing the real GDP growth rate is that we understood that the dairy industry of Mongolia will grow as the economy develops.

Dairy is the largest and fastest-growing category in the global beverage sector according to an analysis by Boston Consulting Group in 2016. Also, processed dairy industry consumption is expected to grow to align developed countries' lifestyle. Therefore, we are assuming that Mongolian processed dairy industry has a potential to grow further to align global average level of dairy consumption. We assumed that processed milk consumption per capita will grow from 23 liters to 29 liters. In accordance with this fact, Mongolian dairy industry is expected to grow 39 million liters to 55 million liters up to 2022 with CAGR of 5.63%.

Furthermore, dairy is an attractive industry, hence, market growth will be slightly more than Mongolian economy growth of future 6 years.

Table 3. Summary of FCFF valuation

	Unit	2018E	2019E	2020E	2021E	2022E
FCFF	MNT K	5,699,026	5,376,003	8,550,116	10,924,754	13,429,017
Terminal value	MNT K					146,791,292
Net CF	MNT K	5,699,026	5,376,003	8,550,116	10,924,754	160,220,309
PV of FCFF@ WACC	MNT K	4,935,546	4,023,961	5,522,554	6,080,095	88,125,146
Present Value (Implied Enterprise value)						108,687,301
Less: Total debt 2018						(13,582,334)
Plus: Cash and cash equivalents						1,150,052
Implied equity value						96,255,019
Implied share price (in MNT)						280

Source: Authors' estimation based on SUU JSC's financial report

Comparable Valuation: Peer Analysis

The reason for choosing Peer Analysis method rather than other valuation methods is that we assumed that SUU can look forward to increase its market share in order to align with regional trend in the future. In our relative valuation we used EV/EBITDA multiples analysis. Our relative analysis resulted MNT 396.

- Peer companies have been selected on the basis of industrial metrics and regional factors. The companies we chose are located in Asian region and categorized as low and middle-income country by World Bank classification.
- We used EV/EBITDA multiple in our valuation, which is commonly used in dairy industry calculations. For the market-based valuation we computed the Enterprise value to EBITDA ratio for SUU by comparing with the industry. This is widely used valuation tool, allowing investors to compare the value of a company, debt included, with the Company's cash earnings less noncash expenses. These multiples are not affected by changes in a company's capital structure and makes it possible to obtain fair comparisons of companies that have different capital structures
- As a statistical measure, in order to minimize the effect of outliers from the data set we used the median, since in this case it will provide a much more

characteristics overview of the sample than the average function.

- Each of company multiples are adjusted by total equity risk premium (discount).

Table 4. Summary of Relative Valuation

Company	Region	TTM EBITDA	EV	EV/ EBITDA	(Discount) or Premium	Adjusted EV/ EBITDA
Inner Mongolia YILI Industrial	Chile	8,000,692,720	209,345,411,474	26.17	6.55	23.96
Hanoi Milk Industry	Vietnam	15,271,752,867	229,011,441,711	15.00	12.09	14.45
DUTCH Lady Milk Industry	Malaysia	184,891,600	3,902,441,333	21.11	7.40	19.48
Guangdong Yantang Dairy Co Ltd	China	147,976,386	4,145,375,781	28.01	6.55	25.65
Ultrajava Milk Industry & Trading Company TBK, PT	Indonesia	817,021,464,268	13,532,750,941,023	16.56	8.82	15.49
Mean						19.8
Median						19.5
EBITDA-2017E					MNT	8,204,022,790.00
Median EV/EBITDA					X	19.48
Equity Value=EV-Debt+Cash					MNT	136,334,705,064.23
Number of shares						344,000,000.00
Valuation per share					MNT	396.32

Source: Authors' estimation based on SUU JSC's financial report

Conclusions

This equity research paper's result and conclusion are based on only authors' view and valuation.

Result

Our result has shown 12 months target price of MNT 315 per 1st class share; representing 23.37% upside from its January 04th, 2018 closing price of MNT

255. Therefore, we are issuing a buy recommendation.

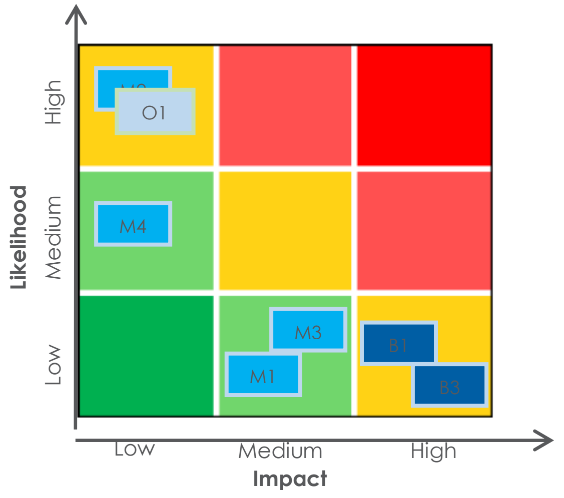
Our valuation is based on a 70/30 mix of Free Cash Flow to Firm Model and EV/EBITDA multiple analysis. Our recommendation based on the following key earning catalysts:

- Industry Growth - Mongolian dairy market is considered as attractive with expected CAGR of 5.63% per annum up to 2022. This growth is mainly influenced by Mongolian processed milk consumption per capita growth.
- Company's Expansion Potential - By the year 2022, SUU is expected to increase their market share up to 56% and as our team assumed this growth is explained by the following factors:
- New market segmentation - In mid-2016, SUU launched Tetra Pak package line and consequently took over 7% of long life milk market segment within only six months. The company therefore obtained opportunity to increase their market share from sales in rural areas where the Company previously had limited ability to reach consumers through their products.
- Strong competitive positioning - Operating with the slogan "From the herder's farm to your home", the Company cooperates with over 2500 herders and farmers throughout the country creating the largest milk collecting system in Mongolia and has cost leadership over its main competitors.
- Decreased Market Risk Exposure - In 2017, the Company paid off USD 6.0 million loan before maturity date thus prevented future losses expected from exchange rate fluctuation which they have been experiencing for the last six years. The company's net profit increased by 383% from MNT 0.59 billion (2016Q4) to MNT 2.3 billion (2017Q2) (Source: MSE) which is 80% explained by the paid off loan. As the company has a policy to make investment using their own resource rather than long term loan in a foreign currency, we assume that the company's net profit looks favorable in our forecasted period.

Monte Carlo simulation

The results of the Monte Carlo simulation supported our BUY recommendation with 74% probability. For the purpose of clarification, the simulation shows 23% probability for Hold and 3% probability for security downgrade to Sell.

Investment risk analysis



Business and operational risk

[B1] Competition (Low likelihood, High impact):

– APU JSC, whose main trade is mainly vodka, beer and water, opened its sub division of dairy products in 2014. This company has strong financial background (Annual net profit 4 times higher than that of SUU) derived from its main trade and easily overcame the entry barrier with their strong financial resource by investing to state of the art plants and machineries. Therefore, we see there is a strong company's competitive force as a risk with low frequency but high impact risk in the mid-term.

[B2] Machinery breakdown (Low Likelihood, Medium impact):

– Due to unforeseen risks such as fire and earthquake, machineries may become unable to continue production and requires repair or replacement therefore resulting interruption.
– Mitigant: According to financial analyst of SUU, the machineries used in the factories are all insured. However, no information as to business interruption insurance.

MARKET RISK

[M1] Extreme weather (Low Likelihood, Medium impact):

– Extreme weather is critical factor for livestock's mortality and milk producing capacity. Especially, lower milk production and high mortality

follow summer drought and winter dzud. In addition following to dzud, bran price usually increase therefore it can result increase in milk price supplied by farmers. Therefore this event is considered as low frequency and medium impact risk.
- Mitigant: Apart from Max Agro LLC's development, SUU supports its contracted farmers by providing bran and livestock blanket to make sure their livestock endure harsh winter conditions.

[M2] Livestock disease (High likelihood, Low impact):
- Every year, there is livestock disease spread in some rural territories and Government tries to limit the spread through early vaccines and destroying those affected. Fortunately, "annual" epidemic disease amongst livestock is being massively decreasing compared to previous years. As for SUU, they collect 93-95% of their raw material from individual farmers who do not have sufficient financial resource to combat against the disease. This risk is considered as highly likely as to occurrence and low impact risk.
- Mitigant: Since 2015 the Company receives cow milk from its related company, Max Agro LLC which is devoted milk farm with health monitoring and automated system. The farm has expanded by over 70% in terms of number of cow in just 2 years.

[M3] Economic deterioration (Low likelihood, Medium impact):
- Purchasing of processed milk is directly correlated to economic situation. Therefore, SUU's revenue is likely to decrease if there's economic deterioration.
- Mitigant: Mongolian economy is mainly dependent to mining sector which comprises the majority of GDP. In World Bank's forecast and Mongolian Government's mid-term plan, the economy growth shall increase in the coming years due to implementation of "Oyu Tolgoi", "Tavantolgoi" and "GatSUUrt" mines.

[M4] Political risk (Medium likelihood, Low impact):
- Frequent dissolving of Mongolian Governments creates inconsistency risk as to regulatory policy. Therefore, we see this as a risk factor to SUU's operation.
- Mitigant: As dairy products are determined as "strategic food" by Mongolian law, political risk may not heavily influence to dairy industry. At the time of writing, the speaker of Parliament has issued positive public call to increase consumption of dairy products to improve public health condition.

OTHER RISKS

[O1] Lack of independence amongst board directors (Low likelihood, High impact):

- The Company is family influenced company at which 2 major shareholders are blood brothers and board members. Therefore, the Company is certainly being directed by those shareholders, leaving the minority with almost no power as to company control.

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