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food empire: valuation and INVESTMENT[[1]](#endnote-2)

Ruth S. K. Tan, Zsuzsa R. Huszár, and Weina Zhang wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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On Friday, January 1, 2016, the Russian finance ministry formally announced that it would initiate legal proceedings in the English courts against Ukraine over the non-payment of a US$3 billion[[2]](#endnote-3) sovereign debt.[[3]](#endnote-4) The legal battle over the sovereign debt intensified the economic and financial disputes that had already existed between the two neighbours during the previous few months.

Food Empire Holdings Limited’s (Food Empire) operations were mainly in these two countries. Food Empire’s stock price had tumbled all the way to a meagre SG$0.21 per share. Should investors sell their shares in Food Empire and cut their losses?

BEST SELLING PRODUCT

MacCoffee was a leader in the instant mixed coffee segment in Russia, Kazakhstan, and Ukraine. In 2003, Food Empire was ranked by the Singapore Brand Awards as one of “The Strongest Singapore Brands.”[[4]](#endnote-5) In 2005, Food Empire was named one of the top 15 most valuable Singapore brands.[[5]](#endnote-6) In 2007, Food Empire made it onto *Forbes*’ prestigious list of “Asia’s 200 Best Under a Billion.”

Political tension and deterioratiNG economic conditions in russia and ukraine

Food Empire had done well in the initial years, but the global financial crisis in 2007–2008 and, more recently, the geopolitical problems in Ukraine, had taken a toll. Ukraine’s dismal economic performance and political unrest had led to the depreciation of its currency, the hryvnia, and then devaluation in January 2014.[[6]](#endnote-7) In March 2014, after brief active fighting, which resulted in the tragic downing of the MH17 flight over Ukraine, Russia completed the annexation of Crimea—a move that upset Ukraine and escalated the uncertainty between the two nations.[[7]](#endnote-8)

Russia’s behaviour was widely criticized as a violation of international laws and agreements, including the *Agreement Establishing the Commonwealth of Independent States* (1991), the *Helsinki Final Act* (1975, commonly known as the Helsinki Accords), and the *Budapest Memorandum on Security Assurances* (1994). Consequently, a number of trade sanctions were imposed against Russia, which led to further depreciation of both the Russian ruble and the Ukrainian hryvnia against the U.S. dollar (US$), which was Food Empire’s reporting currency (see Exhibit 1).[[8]](#endnote-9) At the end of 2014, the exchange rate of rubles to US$ lost more than 54.7 per cent of its value from a year before, having declined from 32.86 to 60 rubles per US$. By the end of 2015, the ruble further declined by 17.8 per cent, to 73.03 rubles per US$. Similarly, from 2013 to 2015, the hryvnia lost more than 65.7 per cent of its value to the US$.

The depreciation of the currencies led to high inflation in both countries. The average inflation rate for Russia was at 15.55 per cent in 2015, compared to 7.08 per cent and 6.77 per cent in 2014 and 2013, respectively.[[9]](#endnote-10) The average inflation rate for Ukraine hit a historical high of 48.7 per cent in 2015, compared to 12.1 per cent and −0.3 per cent in 2014 and 2013, respectively. (The highest inflation rate in Ukraine was at 60 per cent in April 2015.)[[10]](#endnote-11)

On Thursday, December 31, 2015, Ukraine cut power supplies to Crimea. The next day, Moscow imposed a ban on imports of a range of food items from Ukraine, and cancelled a free-trade agreement with Ukraine. As political tensions between the Ukrainian government and the Russian-backed separatists grew, the likelihood that the conflict would be resolved soon seemed doubtful.[[11]](#endnote-12)

All these political and economic developments affected Food Empire’s bottom line (see Exhibits 2 and 3). Some of Food Empire’s manufacturing facilities were in Russia and Ukraine, and raw materials such as coffee and non-dairy creamer were imported into the two countries.

food empire

Background

Founded in 1992, Food Empire was headquartered in Singapore. In April 2000, it launched an initial public offering (IPO) on the mainboard of the Singapore Stock Exchange at an offer price of SG$0.13 per share.[[12]](#endnote-13) The company was a food and beverage brand owner and manufacturer of instant beverage products, frozen convenience food, confectionery, and snacks.

Overall, the group had 200 different types of consumables that were exported to over 60 countries worldwide. Food Empire also sold raw ingredients such as instant coffee and non-dairy creamer to other food manufacturers. The beverage products comprised regular and flavoured coffee mixes and cappuccinos, chocolate drinks, flavoured fruit teas, and breakfast cereal.[[13]](#endnote-14) Its frozen food included tail-on shrimp dumplings, crispy seafood deli, butterfly wontons, spring rolls, curry puffs, and cocktail samosas. Snack food products included potato crisps, apple chips, and rice crackers, while confectionery products consisted of butter cookies. Food Empire’s strength was in its propriety brands, such as MacCoffee, Petrovskaya, Klassno, Hyson, OrienBites, and Kracks. “MacCoffee 3-in-1” instant coffee, the flagship product of the group, had been repeatedly recognized as the leading instant coffee brand in the Ukrainian and Russian markets.

Markets

Food Empire’s products were sold in more than 60 countries, including Russia, Ukraine, Kazakhstan, China, Mongolia, Vietnam, the Philippines, Myanmar, Iran, Kenya, and the United States. Oddly, Food Empire’s products were not sold in Singapore, even though the company had been listed on the Singapore Stock Exchange since April 2000.[[14]](#endnote-15)

Food Empire’s main market was Russia, followed by Ukraine in distant second, then Kazakhstan and the Commonwealth of Independent States (CIS), including nine out of the 15 countries from the former Soviet Union (see Exhibit 4). In 2014, Russia contributed 54.77 per cent of Food Empire’s total revenue of US$249.5 million, while Ukraine contributed 10.71 per cent.[[15]](#endnote-16) In terms of product group decomposition of the revenues, beverages ranked top (see Exhibit 5). In 2014, beverages accounted for 91.96 per cent of total revenue.[[16]](#endnote-17)

Decline in Share Value

Food Empire grew from strength to strength after its IPO. Its share price hit a high of SG$1.19 in April 2007 (see Exhibit 6). It was an amazing run-up from the IPO offer price of SG$0.13 in April 2000. However, with the onset of the global financial crisis, Food Empire’s shares began to lose value and touched a low of SG$0.20 in March 2009. From there, the share value managed to recover some ground until February 2013, when it traded at SG$0.73,[[17]](#endnote-18) but with the upheaval in the Ukrainian territory of Crimea, the share price started to slide again. For the fiscal year ended December 2014, Food Empire reported a net loss of US$13.6 million. If foreign exchange losses were excluded, there would have been a net profit of US$15.6 million (see Exhibit 2).[[18]](#endnote-19)

International Diversification

Over the years, Food Empire expanded its operations internationally with a particular focus on Asia (see Exhibit 4).[[19]](#endnote-20) In 2011, the company took loans for two freehold properties in Singapore and a freehold property in Klang, Malaysia. In 2013, the company took loans to finance the land, construction, and outfitting of factories and machineries in Klang and Johor in Malaysia, and Chennai in India.[[20]](#endnote-21) These efforts included a potato chip factory and non-dairy creamer factory in Johor, a coffee plant in India, and a new packaging plant in Klang. By 2013, the group operated five manufacturing facilities in Singapore, Russia, Ukraine, Malaysia, and Vietnam.

To support growing production needs and to expand its global footprint, a new production facility was established in the Indian state of Andhra Pradesh in 2014 (in addition to the two Malaysian production facilities). With this new facility in India, Food Empire aimed to assert greater certainty and control over the supply and prices of key ingredients.[[21]](#endnote-22) At the management level, aspiration for greater European presence was set in motion in 2015, through a joint venture to sell Nespresso’s capsules. Food Empire also hoped to eventually sell its own brands in Italy.

Peer Groups in similar industry

Food Empire had 10 potential peers. A peer group typically comprised companies that were sufficiently comparable to the company being valued. Ideally, comparable peers should have the same three-digit North American Industry Classification System (NAICS) code and a similar scale of operations in terms of revenue, employees, and total assets.

The peers included Super Group Ltd. and Petra Foods Ltd., which were also listed on the Singapore Stock Exchange; Tenfu (Cayman) Holding Co. Ltd., listed on the Hong Kong Stock Exchange; CCL Products (India) Ltd., listed on the National Stock Exchange of India; Dongwon F&B Co. Ltd. and Ottogi Corporation, listed on the Korean Stock Exchange; Pioneer Food Group Ltd., listed on the Johannesburg Stock Exchange; Premier Foods plc, listed on the London Stock Exchange; Nestlé S.A., listed on the XETRA; and The Kraft Heinz Company, listed on the NASDAQ-GS.[[22]](#endnote-23)

Tenfu (Cayman) Holdings’ three-digit NAICS code (551) differed from Food Empire’s. According to NAICS, the companies under NAICS code 722 prepared meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption.[[23]](#endnote-24) There were variations across the companies within the 722 subsector. Some provided full-service restaurants (NAICS 7221), some provided limited-service eating places (NAICS 7222), some prepared special food services (NAICS 7223), and others provided drinking places (alcoholic beverages—NAICS 7224). Subsector 722, in general, had low entry costs, fierce rivalry, and was subjected to a high threat of substitutes.

The decision

Investors needed to analyze the liquidity, solvency, efficiency, profitability, and growth potential of Food Empire (see Appendix A). In order to shed more light on what had gone wrong, both time series and cross-sectional analyses would need to be conducted. Common size income statements,[[24]](#endnote-25) common size balance sheets,[[25]](#endnote-26) and financial ratios would need to be examined along with data on the potential peers (see Exhibits 7 and 8). The value of Food Empire could be determined using, first, its book value, followed by its dividends (see Exhibit 9), and then against peers (see Exhibits 10, 11, and 12).

The valuation concepts could be used to value the shares by using data from 2010 to 2014 (see Appendix B). Financial statements were all in US$ (Food Empire’s reporting currency) but the share price was in Singapore dollars. The exchange rate, as of January 4, 2016, was US$1 to SG$1.43.

Should investors keep, increase, or sell off their shares in Food Empire?

Exhibit 1: Cumulative exchange rate returns since april 2000

Source: Created by the case authors using source data from “CISRUB$,” “UKRAHY$,” and “SINGDO$,” Thomson Reuters’ Datastream, April 27, 2000 to January 4, 2016, accessed January 16, 2016.

Exhibit 2: food empire’s INCOME STATEMENTs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | US$ millions except per share data | | | | |
| Fiscal year ends December 31st | **2010** | **2011** | **2012** | **2013** | **2014** |
| Revenue | 176 | 226 | 238 | 263 | 250 |
| Cost of revenue | (101) | (125) | (131) | (155) | (137) |
| Gross profit | 74 | 100 | 106 | 108 | 113 |
| Total operating expenses | (69) | (85) | (87) | (94) | (99) |
| Operating income | 6 | 15 | 19 | 14 | 13 |
| Interest expense |  |  |  |  | (1) |
| Foreign exchange gains (losses) |  | (1) | 1 | (2) | (29) |
| Other income (expense) | 8 | 2 | 2 | 1 | 0 |
| Income before taxes | 14 | 16 | 22 | 13 | (16) |
| Provision for income taxes |  | (1) | (1) | (1) | 3 |
| Net income | 14 | 15 | 20 | 12 | (13) |
|  |  |  |  |  |  |
| Earnings per share | 0.03 | 0.03 | 0.04 | 0.02 | −0.02 |
| Number of shares outstanding | 529 | 529 | 529 | 533 | 533 |
| EBITDA | 14 | 18 | 25 | 16 | (11) |

Note: EBITDA = earnings before interest, taxes, depreciation, and amortization.

Source: Adapted from “Food Empire Holdings Ltd (F03),” Morningstar, accessed September 26, 2015.

Exhibit 3: food empire’s balance sheets

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | US$ millions except per share data | | | | |
| Fiscal year ends December 31st | **2010** | **2011** | **2012** | **2013** | **2014** |
| Cash and cash equivalents | 42 | 35 | 47 | 28 | 20 |
| Receivables | 50 | 55 | 55 | 53 | 40 |
| Inventories | 24 | 22 | 27 | 43 | 46 |
| Prepaid expenses | 2 | 7 | 7 | 7 | 4 |
| Other current assets | 2 | 4 | 2 | 3 | 6 |
| Total current assets | 120 | 123 | 138 | 134 | 116 |
|  |  |  |  |  |  |
| Net property, plant, and equipment | 18 | 24 | 34 | 62 | 67 |
| Intangible assets | 13 | 13 | 13 | 13 | 10 |
| Other long-term assets | 18 | 23 | 27 | 29 | 30 |
| Total non-current assets | 49 | 61 | 74 | 104 | 106 |
|  |  |  |  |  |  |
| Total assets | 169 | 187 | 211 | 237 | 222 |
|  |  |  |  |  |  |
| Short-term debt | 1 | 1 | 1 | 4 | 9 |
| Accounts payable | 26 | 26 | 27 | 31 | 36 |
| Other current liabilities | 2 | 2 | 11 | 11 | 14 |
| Total current liabilities | 29 | 29 | 38 | 42 | 50 |
|  |  |  |  |  |  |
| Long-term debt | 5 | 12 | 12 | 28 | 33 |
| Deferred taxes liabilities | 1 | 0 | 0 | 1 | 1 |
| Total non-current liabilities | 6 | 13 | 12 | 29 | 34 |
|  |  |  |  |  |  |
| Common stock | 40 | 40 | 40 | 41 | 41 |
| Retained earnings | 93 | 103 | 119 | 125 | 110 |
| Accumulated other comprehensive income | 1 | 2 | 2 | 0 | −13 |
| Total stockholders' equity | 134 | 145 | 161 | 166 | 138 |
|  |  |  |  |  |  |
| Total liabilities and stockholders' equity | 169 | 187 | 211 | 237 | 222 |

Source: Adapted from “Food Empire Holdings Ltd (F03),” Morningstar, accessed September 26, 2015.

Exhibit 4: Food empire’s main market Revenue by geographical regions

Note: “CIS” = Commonwealth of Independent States, an association of former Soviet republics.

Source: Created by the case authors using Food Empire Holdings Limited, *Food Empire: Annual Report 2014*, 10, accessed September 26, 2015, http://foodempire.listedcompany.com/misc/ar2014/ar2014.pdf.

Exhibit 5: food empire’s main product revenue by product group

Source: Created by the case authors using Food Empire Holdings Limited, *Food Empire: Annual Report 2014*, 10, accessed September 26, 2015, http://foodempire.listedcompany.com/misc/ar2014/ar2014.pdf.

Exhibit 6: food empire’s STOCK CUMULATIVE RETURN from IPO to January 4, 2016 (%)

Source: The cumulative returns are computed by the authors using the daily price of “Food Empire Holdings Ltd (F03-SG)” quoted in SG$ and “All Shares (FSTAS),” FTSE Straits Times Index, April 27, 2000 to January 4, 2016, accessed December 7, 2016.

Exhibit 7: financial ratios of peers

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **CCL Products (India) Ltd** | **Dongwon F&B Co Ltd** | **Kraft Heinz Co** | **Nestlé S.A.** | **Ottogi Corp** | **Petra Foods Ltd** | **Pioneer Food Group Ltd** | **Premier Foods plc** | **Super Group Ltd** | **Tenfu (Cayman) Holdings Co Ltd** |
| Fiscal year | 2015 | 2014 | 2014 | 2014 | 2014 | 2014 | 2014 | 2013 | 2014 | 2014 |
| Fiscal month | March | December | December | December | December | December | September | December | December | December |
| Current ratio | 1.60 | 1.89 | 1.00 | 1.03 | 1.40 | 2.32 | 1.38 | 0.94 | 3.21 | 2.30 |
| Quick ratio | 0.83 | 0.95 | 0.63 | 0.75 | 1.10 | 1.83 | 0.76 | 0.81 | 2.14 | 1.72 |
| Total debt to asset ratio | 0.24 | 0.20 | 0.44 | 0.16 | 0.11 | 0.16 | 0.14 | 0.48 | 0.03 | 0.21 |
| Inventory period | 94 | 66 | 46 | 67 | 29 | 74 | 71 | 61 | 113 | 242 |
| Accounts receivable period | 39 | 33 | 21 | 51 | 24 | 57 | 36 | 104 | 63 | 49 |
| Accounts payable period | 20 | 28 | 42 | 129 | 50 | 39 | 62 | 192 | 38 | 26 |
| Total asset turnover | 1.35 | 1.98 | 0.79 | 0.72 | 1.60 | 1.08 | 1.44 | 0.38 | 0.88 | 0.65 |
| Gross profit margin | 0.37 | 0.28 | 0.27 | 0.48 | 0.22 | 0.32 | 0.30 | 0.35 | 0.35 | 0.62 |
| Net profit margin | 0.11 | 0.03 | 0.06 | 0.16 | 0.05 | 0.10 | 0.05 | −0.29 | 0.13 | 0.16 |
| Return on assets | 0.14 | 0.07 | 0.05 | 0.11 | 0.08 | 0.10 | 0.08 | −0.11 | 0.11 | 0.10 |
| Return on equity | 0.24 | 0.13 | 0.22 | 0.22 | 0.13 | 0.17 | 0.15 | −1.16 | 0.14 | 0.14 |
| Total assets to total equity | 1.68 | 2.00 | 4.83 | 1.91 | 1.63 | 1.59 | 1.94 | 10.51 | 1.27 | 1.35 |

Source: Created by the case authors using “CCL Products (India) Ltd. (519600),” “The Kraft Heinz Co (KHC),” “Nestlé SA (NESN),” “Ottogi Corp (007310),” “Petra Foods Ltd (P34 SP),” “Pioneer Food Group Ltd (PFG),” “Premier Foods PLC (PFODF),” “Super Group Ltd (S10),” and “Tenfu (Cayman) Holdings Co Ltd (5TF),” Morningstar, accessed January 4, 2016; Pioneer Foods, *Integrated Report 2014: Realising Our Potential*, accessed January 4, 2016, http://pioneerfoodsintegratedreport2014.co.za/pdf/Pioneer\_IR\_2014\_8702\_WEB.pdf; “Dongwon F&B Co. Ltd. (049770),” and “Dongwon F&B Co. Ltd. (049770): Income Statement,” Wall Street Journal [database], accessed January 4, 2016; and Nestlé S.A., *Consolidated Financial Statements of the Nestlé Group 2014*, accessed January 4, 2016, www.nestle.com/asset-library/Documents/Library/Documents/Financial\_Statements/2014-Financial-Statements-EN.pdf.

Exhibit 8: company characteristics of peers

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **NAICS** | **No. of Employees** | **Revenue**  **FY 2014**  **US$ millions** | **Book Value**  **FY 2014**  **US$ millions** | **Debt/Equity** |
| Food Empire | 311,920 | 626 | 250.00 | 222.00 | 0.3787 |
| CCL Products (India) Ltd | 311,920 | 350 | 119.50 | 121.10 | 0.2400 |
| Dongwon F&B Co Ltd | 311,710 | 2,350 | 1,704.50 | 817.60 | 0.2000 |
| Kraft Heinz Co | 311,941 | 42,000 | 29,118.00 | 36,571.00 | 0.4400 |
| Nestlé S.A. | 312,111 | 335,000 | 100,134.50 | 135,071.30 | 0.1600 |
| Ottogi Corp | 311,999 | 3,231 | 1,692.00 | 1,231.80 | 0.1100 |
| Petra Foods Ltd | 311,351 | 5,970 | 504.00 | 470.50 | 0.1600 |
| Pioneer Food Group Ltd | 311,211 | 8,099 | 1,673.70 | 1,145.30 | 0.1400 |
| Premier Food plc | 311,999 | 3,848 | 1,551.30 | 2,841.80 | 0.4800 |
| Super Group Ltd | 311,920 | 1,233 | 425.80 | 477.70 | 0.0300 |
| Tenfu (Cayman) Holdings Co Ltd | 551,112 | 5,286 | 275.10 | 463.40 | 0.2100 |

Note: NAICS = North American Industry Classification System; FY = fiscal year.

Source: “OneSource Business Browser North America,” One Source, accessed March 25, 2016, http://custom.onesource.com/businessbrowserus.aspx.

Exhibit 9: food empire’s dividends and equity beta

|  |  |  |
| --- | --- | --- |
|  |  | **Dividends (US$)** |
|  | 2000 | 0.00500 |
|  | 2001 | 0.00750 |
|  | 2002 | 0.01250 |
|  | 2003 | 0.01250 |
|  | 2004 | 0.01500 |
|  | 2005 | 0.01875 |
|  | 2006 | 0.01600 |
|  | 2007 | 0.01900 |
|  | 2008 | 0.00350 |
|  | 2009 | 0.01000 |
|  | 2010 | 0.01052 |
|  | 2011 | 0.01052 |
|  | 2012 | 0.01231 |
|  | 2013 | 0.00563 |
|  | 2014 | 0.00000 |
|  |  |  |
| Equity beta | | 0.6595 |
| Equity risk premium for Russia | | 13.72% |
| Risk-free rate in Russia | | 11.14% |
| Equity risk premium for Ukraine | | 21.94% |
| Risk-free rate in Ukraine | | 16.59% |
| Equity risk premium for Singapore | | 5.75% |
| Risk-free rate in Singapore | | 2.56% |

Source: Food Empire Holdings Limited, *Annual Reports 2000* to *2014*, accessed October 2, 2015, http://foodempire.listedcompany.com/ar.html; “Food Empire Holdings Ltd (F03.SI),” and “FTSE ST All-Share Index (FSTAS.SI),” Yahoo! Finance, accessed October 2, 2015; “Country Default Spreads and Risk Premiums,” Damodaran Online, accessed October 2, 2015 and December 5, 2016, http://pages.stern.nyu.edu/~adamodar/New\_Home\_Page/datafile/ctryprem.html; “Russia 10-Year Bond Yield,” Investing.com, accessed October 2, 2015, www.investing.com/rates-bonds/russia-10-year-bond-yield; “Ukraine 3-Year Bond Yield,” Investing.com, accessed December 5, 2016, www.investing.com/rates-bonds/ukraine-3-year-bond-yield; and “Singapore Government Bond 10Y,” Trading Economics, accessed October 2, 2015, www.tradingeconomics.com/singapore/government-bond-yield.

Exhibit 10: market INFORMATION OF PEERS

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **CCL Products (India) Ltd** | **Dongwon F&B Co Ltd** | **Kraft Heinz Co** | **Nestlé SA** | **Ottogi Corp** | **Petra Foods Ltd** | **Pioneer Food Group Ltd** | **Premier Foods plc** | **Super Group Ltd** | **Tenfu (Cayman) Holdings Co Ltd** |
| Ticker | CCL.NS | 049770.KS | KHC | NESR.DE | 007310.KS | P34.SI | PFG | PFD.L | S10.SI | TENFU (6,868.HK) |
| Stock Exchange | NSE | KSE | NASDAQ-GS | XETRA | KSE | SES | JSE | LSE | SES | HKSE |
| Share price | 214.45 INR1 | 388,000 KWR1 | 72.76 USD1 | 67.55 EUR1 | 1,255,000 KWR1 | 2.19 SGD1 | 151.06 ZAR3 | 38.91 GBP1 | 0.825 SGD1 | 2.74 HKD1 |
| Market Capitalization | 28.52 B2 | 1.50 T2 | 88.29 B2 | 213.05 B2 | 4.38.03 B2 | 1.34 B2 | 35.317 B3 | 321.26 M2 | 919.96 M2 | 3.36 B2 |
| Shares Outstanding | 132.99 M2 | 3.86 M2 | 1.21 B2 | 3.15 B2 | 3.38 M2 | 611.16 M2 | 17.982 M3 | 825.65 M2 | 1.12 B2 | 1.23 B2 |
| Trailing Price/ Earnings (ttm, intraday) | 26.64 | 24.61 | NA | 15 | 38.82 | 199.09 | 0.35 | NA | 15.87 | 9.98 |
| Price/Book (mrq) | 5.74 | 2.90 | 1.52 | 3.59 | 4.59 | 5.51 | 4.02 | 45.85 | 1.83 | 11.57 |
| Price/Sales (ttm) | 3.16 | 0.80 | 6.39 | 2.40 | 2.23 | 2.95 | 0.14 | 12.16 | 1.80 | 14.02 |

Note: M = millions, B = billions, mrq = most recent quarter (as of September 30, 2015), ttm = trailing twelve months (as of September 30, 2015); 1 data provided by Thomson Reuters on January 4, 2016; 2 Shares outstanding taken from most recently filed quarterly or annual report, and market cap calculated using shares outstanding; 3 data provided by Thomson Reuters on January 6, 2016.

Source: Created by the case authors using “CCL Products (India) Limited (CCL.NS),” “Dongwon F&B Co., Ltd. (049770.KS),” “The Kraft Heinz Company (KHC),” “Nestlé S.A. (NESR.DE),” “Ottogi Corporation (007310.KS),” “Petra Foods Ltd (P34 SP),” “Pioneer Food Group Ltd (PFG),” “Premier Foods plc (PFD.L),” “Super Group Ltd (S10.SI),” “Tenfu (Cayman) Holdings Company Limited (6868.HK),” at Yahoo! Finance, accessed January 4, 2016.

Exhibit 11: food empire’s market value ratios

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **2010** | **2011** | **2012** | **2013** | **2014** |
| Price/Earnings | 15.4 | 9.1 | 12.0 | 14.7 | — |
| Price/Book | 1.6 | 0.9 | 1.5 | 1.4 | 0.8 |
| Price/Sales | 1.2 | 0.6 | 1.0 | 0.9 | 0.5 |

Source: Adapted from “Food Empire Holdings Ltd (F03),” Morningstar, accessed September 29, 2015.

Exhibit 12: STOCK cumulative returns of food empire and peers

(April 2000 to dECEMBER 2015) (%)

Source: Created by the case authors using “CCL Products (India) Ltd (CCL IN),” “Food Empire (FEH SP),” “Petra Foods Ltd (P34 SP),” “Pioneer Food Group Ltd (PFG SJ),” “Super Group Ltd (S10 SP),” and “Tenfu (Cayman) Holdings Co Ltd (6868 HK),” Bloomberg, accessed January 20, 2016.

Exhibit 12 (continued)

Source: Created by the case authors using “Food Empire (FEH SP),” “Kraft Heinz Co (KHC US),” “Nestlé SA (MESN VX),” “Ottogi Corp (007310 KP),” “Premier Foods plc (PFD LN),” and “Dongwon F&B Co Ltd (049770 KP),” Bloomberg, accessed January 20, 2016*.* The cumulative returns of “Ottogi Corp” and “Dongwon F&B Co" are labelled as the secondary Y-axis on the right-hand side (RHS).

appendix A: definiton of financial ratios

Short-Term Liquidity

The current ratio is a reflection of short-term liquidity. A ratio greater than one shows that current assets could service current liabilities. In fact, a higher number indicates greater liquidity. However, there exists a trade-off between liquidity and profitability.

Quick ratio removes inventory from the equation because they are not as liquid as the other assets.

Solvency

The total debt to assets ratio reflects the fraction of the firm that is funded by debt. A larger number indicates greater risk of not being able to meet compulsory interest or principal repayment.

The interest coverage or times interest earned (TIE) ratio measures the ability of the company to pay the interest on its loans.

Asset Use Efficiency

The assets of interest include receivables, inventory, and total assets. Asset use efficiency can be described by the number of days it took to sell the inventory and collect the receivables. A related item on the liability side would be accounts payable.

where .

Total asset turnover could also be used to analyze efficiency. It indicates the amount of sales that the company could generate per dollar of assets.

Profitability

The ability of the company to control the raw material costs and labour costs would be reflected by the gross margin ratio. The ability to control all costs including operating, financing, and restructuring would be reflected by the net profit margin ratio.

Two other commonly used measures are return on assets (ROA) and return on equity (ROE). ROA measures profitability relative to assets, while ROE measures profitability relative to ownership.

The DuPont identity further divides ROE into three ratios, namely profit margin, total asset turnover, and equity multiplier:

Market Value Ratios

These ratios relate the observable market price to book values obtained from the company’s financial statements such as earnings, book value of equity, and sales.

The price to earnings (P/E) ratio is an indication of how much investors are willing to pay per dollar of earnings. They are willing to pay more if they expect high future earnings; that is, a high P/E is associated with high growth.

The market to book ratio, also known as price to book ratio, is an indication of how much investors are willing to pay per dollar of net assets (i.e., assets less liabilities). It reflects the company’s success in creating value for shareholders. If the ratio is less than one, the shares sold for less than the value of the company’s assets. Theoretically, that means that investors could buy all the shares of the company, sell all the assets, and end up with cash on the table.

The price to sales ratio is an indicator of the value placed on each dollar of sales revenue. When comparing companies under different accounting regime, this ratio is especially useful because it makes use of the top line instead of the bottom line.

appendix B: valuation concepts

Valuation Using Book Value

If all tangible assets could be sold at their book values and all liabilities paid off at their book values, then the remainder would be the net tangible assets (NTA); theoretically, that would be the underlying book value of equity, based on historical costs. A major critique of this measure is that it does not take into consideration the earnings potential of the assets.

Valuation Using Dividends

Often, share price is defined as the present value of all future dividends. Because it is not easy to project all future dividends, simplifying assumptions are usually made. The constant dividend model and the constant growth dividend model are the most common assumptions.

Constant Dividend Model

Constant Growth Dividend Model

The required return can be obtained by applying the capital asset pricing model (CAPM). The growth can be estimated from the growth of past dividends. (See Exhibit 9 for Food Empire’s dividends per share from 2000 to 2014 and its beta.)

Valuation Using Peer Multiples

The peer multiple method of valuation can be used to obtain a quick idea of value when the determinants of value are not so clear or readily available. Under this method, the observed prices of traded securities similar to the security of interest are appropriately scaled by items on the financial statements such as earnings, book equity, or sales, and then used to estimate the value of the security concerned. The selection of peers has to be done carefully. The more similar they are to the company being valued, the more reliable the result.

The most commonly used peer multiple is the price to earnings (P/E) ratio, which reflects how much investors are willing to pay for each dollar of earnings. Assuming that investors are willing to also pay the same multiple for the company being valued, the intrinsic value can be obtained by applying the average P/E of the peers to the earnings per share (EPS) of the company being valued.

Sometimes, the average P/E is also referred to as the industry average P/E or the P/E of comparables.

The price to book ratio (P/B), also known as market to book ratio, is an indication of how much investors are willing to pay per dollar of net assets (i.e., assets less liabilities). The P/B ratio reflects the company’s success in creating value for its shareholders. If the ratio is less than one, theoretically, the investors could buy all the shares of the company, sell all the assets, settle the liabilities, and still have cash on the table.

The price to sales (P/S) ratio is a reflection of the value placed on each dollar of sales revenue. When comparing companies under different accounting regime, this ratio is especially useful because it makes use of the top line instead of the bottom line. Applying the average P/S multiple to the sales of the company being valued gives the intrinsic value.

The peer multiple method, though easy to apply, has certain drawbacks: first, it involves a heavy reliance on accounting data; second, it does not take into consideration the unique characteristics of the peer companies (e.g., marketing strategies, technological differences, and age of assets); third, the peer ratios could have a wide range; and most importantly, it might be difficult to find comparable companies.

Endnotes

1. This case has been written on the basis of published sources only. Consequently, the interpretation and perspectives presented in this case are not necessarily those of Food Empire Holdings Ltd. or any of its employees. [↑](#endnote-ref-2)
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4. “Awards and Achievements,” MacCoffee, accessed September 25, 2015, www.maccoffee.com/awards.htm. [↑](#endnote-ref-5)
5. “Singapore Brand Award (SBA),” SESAMi World Connect, accessed September 25, 2015, www.sesami.net/industryfeature.aspx. [↑](#endnote-ref-6)
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11. “Ukraine Crisis: Kiev Bans Russian Airlines’ Flights,” BBC News, September 26, 2015, accessed September 26, 2015, www.bbc.com/news/world-europe-34365791. [↑](#endnote-ref-12)
12. US$1= SG$1.43 on September 28, 2015. [↑](#endnote-ref-13)
13. “Food Empire Holdings Ltd (F03.SI),” Yahoo! Finance, accessed September 26, 2015. [↑](#endnote-ref-14)
14. Leong Chan Telk, “Food Empire: Making Hot Coffee for Russians and Others,” Next Insight, September 20, 2012, accessed September 26, 2015, www.nextinsight.net/index.php/component/content/article?id=5855:food-empire-making-hot-coffee-for-russians-a-others. [↑](#endnote-ref-15)
15. Food Empire Holdings Limited, *Food Empire: Annual Report 2014*, 10, accessed September 26, 2015, http://foodempire.listedcompany.com/misc/ar2014/ar2014.pdf. [↑](#endnote-ref-16)
16. Ibid. [↑](#endnote-ref-17)
17. “Food Empire Holdings Ltd (F03.SI),” Yahoo! Finance, accessed September 26, 2015. [↑](#endnote-ref-18)
18. Leon Chan Telk, “@Food Empire’s AGM: Will It Turn around This Year? Watch Ruble, Oil Price,” Next Insight, April 27, 2015, accessed September 26, 2015, www.nextinsight.net/index.php/story-archive-mainmenu-60/927-2015/9962-food-empires-agm-will-it-turn-around-this-year-watch-rouble-oil-price. [↑](#endnote-ref-19)
19. Ibid. [↑](#endnote-ref-20)
20. Food Empire Holdings Limited, *Food Empire: Annual Report 2014*, op. cit. 112–113. [↑](#endnote-ref-21)
21. Food Empire Holdings Limited, *Food Empire: Annual Report 2014*, op. cit. 3, 8. [↑](#endnote-ref-22)
22. For further information on these peers, see the companies’ annual reports at “CCL Products (India) Limited,” http://cclproducts.com/assets/ar-2014-153.pdf; “Dongwon F&B Co Ltd,” Morningstar [in Korean]; “The Kraft Heinz Company,” http://ir.kraftheinzcompany.com/sec.cfm; “Nestlé S.A.,” www.nestle.com/investors/annual-report; “Ottogi Corp,” Morningstar [in Korean]; “Petra Foods Limited,” www.petrafoods.com/resources\_annual\_reports.html; “Pioneer Food Group Ltd,” www.pioneerfoods.co.za/investor-tools/financial-results; “Premier Foods plc,” www.premierfoods.co.uk/investors/results-centre; “Super Group Ltd.,” www.supergroupltd.com/html/ir\_report.php; and Tenfu (Cayman) Holdings Company Limited, www.tenfu.com/uploadfile/investor/20150410175140291.pdf; all accessed November 5, 2016. [↑](#endnote-ref-23)
23. “Food Services and Drinking Places: NAICS 722,” Bureau of Labor Statistics, United States Department of Labor, accessed December 5, 2016, www.bls.gov/iag/tgs/iag722.htm. [↑](#endnote-ref-24)
24. A common size income statement is presented with each item as the percentage of sales: “Common Size Income Statement,” Investopedia, accessed September 26, 2016, www.investopedia.com/terms/c/commonsizeincomestatement.asp. [↑](#endnote-ref-25)
25. A common size balance sheet is presented with each item as the percentage of total assets, total liabilities, and equity accounts respectively; “Common Size Balance Sheet,” Investopedia, accessed September 26, 2016, www.investopedia.com/terms/c/commonsizebalancesheet.asp. [↑](#endnote-ref-26)