



**BUSINESS ANALYSIS & VALUATION
TAKE HOME ASSIGNMENT---
BRITANNIA INDUSTRIES LTD.**

KAKKANINILAYE

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Britannia - Overview

Britannia Industries limited is an Indian food products manufacturing and marketing company based in Bangalore. It was started in the year 1892 in Calcutta and currently Wadia group holds the majority stake of 50.96% in Britannia. Britannia's products include biscuits, breads, dairy products, cakes and rusk. It has got a lot of renowned brands like, Good Day, Tiger, Bourbon, 50-50, Nutri Choice etc.

Competitors, Market Share and Strategy

There has been an intense competition between Parle and Britannia for years. In 2006, Britannia had an approximately 6% lead over Parle in market share in value terms. But in 2010, the tables had turned with Parle establishing a 6-7 percentage point lead over Britannia in value terms. In order to establish market leadership in terms of both volume and value, Wadia made Varun Berry as CEO in the year 2013. Under Varun Berry, the company improved its sales and distribution reach and cost management, increased the in-house production capabilities, increased the efficiency of supply chain and scaled up its innovation capabilities. Because of these radical changes made by the CEO, Britannia regained its market share and in 2015 Britannia's market share in value terms was 28% while that of Parle was 27.5. But Parle still dominates the market in volumes.

Cash flow statement analysis

As we can see, Britannia, though being a 123 year old company, has a mindset like that of a start-up – still having the competitive spirit and ready to make radical changes in order to achieve market leadership. This is evident from the cash flow statement analysis. The attached excel file contains the comparison of cash flows of Britannia for the period 2011 – 2015.



Britannia - cash
flow analysis.xlsx

1. Cash flow from operations

The business has been generating good Cash Flows from Operations (CFO) which can be seen from the increasing trend between 2011 and 2014. Even in 2015, the gross cash flow from operations is higher than that of 2014. The company has been able to finance both their capex and dividends from their operating cash flows in the last two years. Their CFO is greater than Profit After Tax (PAT) consistently between 2011 and 2014. In 2015, due to high other income through sale of assets, CFO is less than PAT.

2. Capex

Purchase of fixed assets has been one of the major uses of cash in the last 5 years especially between 2011 and 2014. This trend reflects Britannia's new CEO's strategy of increasing the in-house production capabilities. The high capital expenditure made in 2012 and 2013 has resulted in high revenue growth and profitability after 2013. FMCG sector in India is poised for high growth in the future due to government's push for better road connectivity to rural parts of the country. Britannia's high capex in the last 5 years reflects their strategy to tap the growing rural markets. Their emphasis on improving their distribution network aids their strategy.

3. Net Borrowing

Britannia has been reducing the share of debt component in their total funds since 2011. The company's debt to value ratio has reduced from 65% in 2011 to 10.14% in 2015. Hence it has been a net re-payer in the time period we have considered. The reason for reducing their debt could be a strategic decision to aid their high growth strategy. Usually during high growth phase, a firm would expect high volatility in their cash flows. In such a case, funds raised through equity will be more beneficial as they do not have any obligation to pay dividends to the shareholders. The company has raised more equity year on year by reducing their dividend pay-out ratio consecutively from 58% in 2011 to 28% in 2015. The company's high growth in PAT in the last 3 years combined with reducing dividend pay-out ratio has resulted in increase in equity of the company.

Britannia Ratio Analysis:



Britannia ratios
working.xlsx

1. Short Term Solvency Ratios:

Net Working Capital, Current Ratio & Quick Ratio

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Sales	22662.88	27762.5	34212.28	37729.08	45897.3	54607.5	61359.1	68293.2	77750.9
C A	7154.685	7819.358	9080.569	6312.848	8221.3	9780	8620.9	10461	16479.3
C L	4093.473	4630.999	5036.544	6430.039	6661.9	12205.4	12590.4	12461.2	14768.7
Net W C	3,061.21	3,188.36	4,044.03	(117.19)	1,559.40	(2,425.40)	(3,969.50)	(2,000.20)	1,710.60
Current ratio	1.75	1.69	1.80	0.98	1.23	0.80	0.68	0.84	1.12
Quick Ratio	0.95	0.65	0.87	0.18	0.60	0.31	0.23	0.30	0.52

The Net Working Capital for the firm had gone in the red for FY 2012, 2013 & 2014. From FY 2011 to FY 2012, there was a steep growth in topline and this increased the company's

Current liabilities, while they were able to keep their current assets under control. It was able to balance its Net working capital in the FY 2015.

Accordingly current ratio had a dip in the FY 2012, 2013 & 2014 & came to a good position in the FY 2015.

From quick ratio, we find that the company relies too much on its inventory or other assets to pay off its current liabilities as evident from significantly lower quick ratio.

The company has to work on better liquidity management.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Sales	22662.88	27762.5	34212.28	37729.08	45897.3	54607.5	61359.1	68293.2	77750.9
Average Daily Expenses (Million INR)	59.22	70.68	89.00	100.42	121.54	143.30	159.94	174.46	195.41
Cash Cover for Daily Expenses (days)	8.88	7.15	6.22	3.16	5.68	3.80	5.25	5.65	1.64
Quick Assets Cover for daily expenses (days)	65.87	42.77	49.29	11.38	32.96	26.73	18.12	21.58	39.59
Current assets cover for daily expenses (days)	120.81	110.63	102.02	62.86	67.64	68.25	53.90	59.96	84.33
Current Liabilities Cover for Daily Expenses (days)	69.12	65.52	56.59	64.03	54.81	85.17	78.72	71.43	75.58

Average Daily Expenses of the firm has increased over the years which is in line with its growth in sales.

Cash Cover & Quick Assets Cover for daily expenses (Days) is very erratic over the years, which calls for better liquidity and cash management by the firm.

Current assets cover for daily expenses (Days) has decreased over time, keeping in view of various other parameters part of this discussion, we can say that the company is able to make recoveries in a better way and much quickly.

Current Liabilities cover for daily expenses (Days): Though this ratio is in line with the sales growth of the firm, yet as the company grows it has to be able to pay off its current liabilities

in time too. We find that as the company grew its current liabilities have also started accumulating. The company's short term liquidity is usually under stress.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Sales	22662.88	27762.5	34212.28	37729.08	45897.3	54607.5	61359.1	68293.2	77750.9
Accounts Receivable Turnover		44.14	47.84	51.24	59.52	56.31	52.04	59.00	63.60
Average Collection Period (days)		8.27	7.63	7.12	6.13	6.48	7.01	6.19	5.74

We see that Account Receivables Turnover has increased over time and the average collection period has reduced, this shows that the company is managing its receivables and making recoveries in a better way. This also shows that the firm has greater bargaining power with its distributors and has been able to discipline them.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Sales	22662.88	27762.5	34212.28	37729.08	45897.3	54607.5	61359.1	68293.2	77750.9
Inventory Turnover		9.12	10.51	12.36	13.63	13.43	14.48	16.02	17.31
Inventory Conversion Period (days)	27.00	40.04	34.72	29.52	26.79	27.17	25.21	22.78	21.09

The above ratios show that the company is getting better in managing its inventory. This shows the firm is keeping lower levels of inventory which ensures freeing of funds for better purpose, lesser pilferage, wastage and greater operational discipline.

2. Long Term Solvency

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Debt to Total Capital	0.88	0.60	0.56	0.82	0.85	0.88	0.72	0.69	0.73
Long-term Debt to Total Capital	0.12	0.15	0.18	0.39	0.39	0.11	0.03	0.03	0.02

Long-term Debt to Fixed Assets	0.43	0.57	0.61	1.42	1.47	0.33	0.08	0.07	0.09
Times interest covered	8.95	13.01	7.21	6.72	5.11	7.36	10.66	65.75	183.53

Firm's debt has come down over the years, and now they have additional debt taking capacity.

Firm's Times Interest Covered Ratio is consistently increasing over the years, it gives the firm additional debt taking capacity for expansion and unlocking of shareholder value.

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Operating Assets	7875.02	9844.14	10471.38	13734.19	11567.60	15356.50	16822.50	18049.80	20545.00
Avg Op Assets		8859.58	10157.76	12102.78	12650.89	13462.05	16089.50	17436.15	19297.40
RoOA		0.22	0.17	0.09	0.14	0.18	0.22	0.31	0.37
Borrowed Funds	3459.19	2825.12	4056.28	4066.97	8238.25	8859.60	9910.00	7786.20	7115.60
Avg of Borrowed Funds		3142.16	3440.70	4061.63	6152.61	8548.92	9384.80	8848.10	7450.90
Net return from Borrowed funds		382.64	286.14	80.23	448.30	820.71	1114.45	1610.27	1750.57
Gearing (%)		12%	8%	2%	7%	10%	12%	18%	23%
Equity multiplier	47.37	57.61	62.45	63.34	67.76	77.11	68.19	51.21	67.90

The increase in gearing (%) over the years shows that they have used their borrowed funds properly to increase the efficiency of assets.

Profitability

3. Margin on sales

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Gross Profit Margin (%)	4.62%	7.08%	5.04%	2.85%	3.34%	4.22%	4.86%	6.76%	8.26%

Operating Profit Margin (%)	4.62%	7.08%	5.04%	2.85%	3.76%	4.56%	5.66%	7.98%	9.11%
Net Profit Margin (%)	4.88%	6.39%	4.43%	2.73%	2.93%	3.65%	4.23%	5.79%	8.86%

Gross Profit Margin & Operating Profit Margin have consistently increased over years. One way of achieving this is cost efficiency, but this route is always short-lived. Firm's consistent increase in profit margin shows that its products have higher acceptability amongst the consumers, due to which it is able to pass on the cost to the consumers.

In Order to Analyze the Net Profit Margin we have broken the ratio as follows-

$$\begin{aligned} \text{Net Profit Margin} &= \text{PAT/Sales} = (\text{Op. Profit} - \text{Non Operating items} - \text{Intt-Tax})/\text{Sales} \\ &= (\text{Op. Profit}/\text{Sales}) - (\text{Non-Operating items}/\text{Sales}) - (\text{Intt}/\text{Sales}) - (\text{Tax}/\text{Sales}) \end{aligned}$$

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net Profit Margin (%)	4.88%	6.39%	4.43%	2.73%	2.93%	3.65%	4.23%	5.79%	8.86%
Op Profit/Sales	0.042	0.038	0.057	0.046	0.023	0.032	0.041	0.051	0.070
Non Op Items/Sales	0.004	(0.01)	0.036	0.024	0.013	0.013	0.020	0.020	0.016
Intt/Sales	0.005	0.005	0.007	0.004	0.007	0.006	0.005	0.001	0.000
Tax/Sales	0.005	0.015	0.015	0.001	0.012	0.012	0.016	0.025	0.034

From the above table we see that the growth in Net Profit margin is driven by increase in Op. Profit & decrease in Interest. Still, the growth in (Operating Profit/Sales) is the main contributor to the consistent increase in Net Profit Margin.

Return on Investment

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Operating Profit to Operating Assets (%)	13.29%	19.95%	16.48%	7.83%	14.92%	16.22%	20.66%	30.20%	34.48%
Net Income to Total Assets (%)	9.76%	12.89%	10.15%	6.82%	8.30%	10.83%	13.78%	18.76%	24.65%
Return on Equity (%)	18.98%	25.26%	20.89%	36.21%	40.95%	48.51%	46.33%	49.39%	55.20%

The above set of ratios have consistently increased over years, this shows that the firm is efficiently managing its resources to give a good return on investment. In addition the increased RoE shows that they have consistently been able to unlock shareholder value.

Efficiency of use of Assets

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Asset Turnover	2.00	2.02	2.29	2.49	2.84	2.96	3.26	3.24	2.78
Operating Asset Turnover	2.88	2.82	3.27	2.75	3.97	3.56	3.65	3.78	3.78
Working Capital Turnover	7.40	8.71	8.46	(321.95)	29.43	(22.51)	(15.46)	(34.14)	45.45
Shareholder Equity Turnover	3.89	3.95	4.72	13.24	13.99	13.28	10.95	8.53	6.23

The Total Asset Turnover had a dip in FY 2015 after two better years of FY 2013 & FY 2014. The Dip in FY 2015 was due to the surge in short term & Long Term investments by the firm. Keeping this small anomaly aside we find that the Total Asset Turnover & Operating Asset Turnover are increasing in a staggered manner over the years. This shows that the firm is vying for greater capacity utilization. As the gross profit margin is also increasing, we again say that the firm's products find greater acceptability with consumers.

Working Capital Turnover: From the earlier discussion we have noted that the firm has stumbled with its management of working capital in some of the years. This evident from the Negative figures in working capital turnover ratio. The firm has to start managing its working capital consistently over the years.

The shareholder equity turnover has been erratic over the years. Quite recently, it has decreased drastically because of higher retained earnings. The firms should pay it out to the shareholders or utilize it in more efficient way.

Return per Share of Equity

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
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Earnings per Share		9.25	14.85	12.68	8.64	11.25	16.71	21.71	32.97	57.42
Dividends per share										
(including Dividend Tax)										
		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Adj Share Price (31 st March)		3.00	3.60	8.00	5.00	6.50	8.50	8.50	12.00	16.00
		170.86	189.19	214.23	278.69	347.55	504.01	819.43	2146.62	
Book Value per share		48.75	58.80	60.70	23.86	27.47	34.44	46.86	66.75	104.03
Dividend Pay-out Ratio (%)		32.43%	24.23%	63.08%	57.88%	57.79%	50.88%	39.15%	36.40%	27.86%
Price-to-Book Value		3.51	3.22	3.53	11.68	12.63	16.26	10.76	12.28	20.64
Price-to-Earnings		18.47	12.74	16.89	32.26	30.85	33.52	23.21	24.86	37.38
Dividend Yield (%)		1.76%	1.90%	3.73%	1.79%	1.87%	1.52%	1.69%	1.46%	0.75%

EPS and Dividends per share, both have been increasing over the years. Combined, this shows management's confidence to sustain higher dividends in the future. It proves their confidence in the firm.

Other ratios

Total number of outstanding shares have not increased significantly, the increase in Book value per share is due to the increase in retained earnings.

Dividend Pay-out ratio has come down over the years, this shows that they are reinvesting in the business as is evident from their higher retained earnings. This signals they have better use of money, which shows that the management is positive about growth prospects of the firm.

The price to book value & price to earnings have consistently increased over the years, this shows that investors have shown confidence on the future earnings of the firm.

Dividend Yield has been steady over the years, except for FY 2015. In FY 2015, the share price increased considerably & dividend pay-out ratio decreased pulling down the yield.

Estimating the cost of capital

(The excel file used for estimating the cost of capital attached herewith



Cost of capital.xls

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The firms that have a similar product line and business model to that of Britannia are Parle and the Food processing division ITC, while Parle is not listed and the use of ITC as a comparable would be inaccurate as the beta of ITC captures the systematic risk of ITC as a whole.

Due to the above limitations we have decided to consider regression beta and Implied cost of equity and its corresponding beta for Britannia Industries with respect to an appropriate market index.

The Appropriate Market Index: We estimated the risk premium based on the composition of 'marginal investors' in the firm's equity. In the context of this analysis we have defined a marginal investor as someone with a major shareholding and has a large variation in the holdings YOY.

Holder Name	Position	Position Change	Filing Date	Percent Outstanding	Institution Type	Country
SBI FUNDS MANAGEMENT	1,171,957	+54	3/31/2016	0.98	Investment Advisor	INDIA
SBI FUNDS MANAGEMENT	1,220	+54	3/31/2016	0	Investment Advisor	INDIA
KOTAK MAHINDRA	1,133,722	+23,328	3/31/2016	0.94	Investment Advisor	INDIA
KOTAK MAHINDRA	461,400	+3,000	3/31/2016	0.38	Investment Advisor	INDIA
KOTAK MAHINDRA	350,000	+20,000	3/31/2016	0.29	Investment Advisor	INDIA
KOTAK MAHINDRA	12,487	-1,818	3/31/2016	0.01	Investment Advisor	INDIA
KOTAK MAHINDRA	4,300	+2,000	3/31/2016	0	Investment Advisor	INDIA
KOTAK MAHINDRA	4,028	+751	3/31/2016	0	Investment Advisor	INDIA
KOTAK MAHINDRA	1,287	-500	3/31/2016	0	Investment Advisor	INDIA
KOTAK MAHINDRA	323	-105	3/31/2016	0	Investment Advisor	INDIA
MOTILAL OSWAL ASSET MANA	961,949	+30,137	3/31/2016	0.8	Investment Advisor	INDIA
MOTILAL OSWAL ASSET MANA	827,166	+28,720	3/31/2016	0.69	Investment Advisor	INDIA
MOTILAL OSWAL ASSET MANA	107,236	+1,123	3/31/2016	0.09	Investment Advisor	INDIA
MOTILAL OSWAL ASSET MANA	27,547	+3,978	3/31/2016	0.02	Investment Advisor	INDIA
MOTILAL OSWAL ASSET MANA	0	-3,684	3/31/2016	0	Investment Advisor	INDIA

The majority of the marginal investors are Indian Mutual fund houses like SBI, Kotak Mahindra, Motilal Oswal etc. The Nifty index is a sufficient proxy for their diversified portfolio investments and hence it was used as a market index for this analysis

Implied cost of Equity:

Estimating growth rate: The following dividend payouts, EPS and Book values data was obtained from Bloomberg. Return on equity and Retention ratios are calculated to estimate the historical growth rate in dividends

Year	2011	2012	2013	2014	2015
Dividend per share (Pretax)	6.5	8.50	8.50	12.00	16.00
EPS	11.25	16.71	21.72	33.00	57.41
BV per share	27.36	34.30	46.71	66.75	104.03
ROE	41.12%	54.20%	53.63%	58.17%	67.23%
Retention ratio	42.22%	49.13%	60.87%	63.64%	72.13%
Expected growth rate	48.50%				

Estimating the high growth duration:

After estimating growth rate the next step was to find out the likely high growth phase period based on the historical growth patterns and future business plans of the firm

	2007	2008	2009	2010	2011	2012	2013	2014	2015
EBIT	1,046.72	1,964.36	1,725.86	1,075.28	1,725.50	2,490.40	3,474.90	5,450.50	7,084.20
EBIT(1-T)	690.84	1,296.48	1,139.07	709.68	1,138.83	1,643.66	2,293.43	3,597.33	4,675.57
Depreciation	362.3	527.3	912.2	848.7	649.1	618.3	731.5	831.8	1,444.80
CAPEX	2,498.60	735.2	1,053.40	704.7	730.8	2,431.00	2,154.00	995.00	-463.40
Net current assets	7,154.70	7,819.40	9,080.60	6,312.80	8,221.30	9,780.00	8,620.90	10,461.00	16,479.30
Net current liabilities	4,093.50	4,631.00	5,036.50	6,430.00	6,661.90	12,205.40	12,590.40	12,461.20	14,768.70
WC needs	3,061.20	3,188.40	4,044.10	-117.20	1,559.40	-2,425.40	-3,969.50	-2,000.20	1,710.60
WC investments		127.20	855.70	-4,161.30	1,676.60	-3,984.80	-1,544.10	1,969.30	3,710.80
FCFF		961.38	142.17	5,014.98	-619.47	3,815.76	2,415.03	1,464.83	2,872.97
IS Capex > Depreciation	Yes	Yes	Yes	NO	Yes	Yes	Yes	Yes	NO

Upon observing the historical growth momentum it can be estimated that the company will likely be in a high growth phase for the next three years. The firm has recently added a lot of capacity of its own and given this development the company's future CAPEX will be stable at least for the next few years. The growth rate in dividends are assumed to stabilize to the growth rate of the economy gradually as dividends are a lever for signaling the growth prospects of the company and the company will try to avoid losing its clientele investors by not sending out any sudden changes in dividends. Hence the high growth in dividends are assumed to stabilize over 5 years.

The estimated dividends for the next 8 years is as follows

2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E
23.76	35.28	52.39	48.13	44.21	40.62	37.31	34.27	36.95

The assumptions can be represented in the table as follows

High growth period	3 Years
Declining growth period	5 Years
Declining growth rate	-8.14%
Matured growth rate (Growth rate of the economy)	7.81%
CMP (22/04/2016)	2805.43

The implied growth rate is estimated by an iterative process using 'Goal Seek' feature in MS Excel. The estimate is as follows

	2016 E	2017 E	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E
Terminal value of dividends	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,372.91
Dividends + Terminal value	23.76	35.28	52.39	48.13	44.21	40.62	37.31	34.27	5,409.86
PV(Expected Dividends per share)	2,805.43								
Implied cost of equity	8.55%								
Implied Beta	0.25219								

Regression Beta

Deciding upon the time horizon for analysis:

The beta of a firm depends on three factors

- 1) Type of the business the firm is into
- 2) Operating Leverage
- 3) Financial Leverage

In order to decide upon the time horizon for estimating beta, the above mentioned three factors must not have changed significantly

- 1) Britannia Industries business portfolio has not changed in its recent history
- 2) The details of operating leverage for the past few years is estimated as follows

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
EBIT (Operating income)	1,046.70	1,964.40	1,725.90	1,075.30	1,725.50	2,490.40	3,474.90	5,450.50	7,084.20
Total sales	22,662.90	27,762.50	34,212.30	37,729.10	45,897.30	54,607.50	61,359.10	68,293.20	77,750.90
% change in EBIT	-	87.68%	-12.14%	-37.70%	60.47%	44.33%	39.53%	56.85%	29.97%
% change in sales	-	22.50%	23.23%	10.28%	21.65%	18.98%	12.36%	11.30%	13.85%
Operating leverage	-	3.90	-0.52	-3.67	2.79	2.34	3.20	5.03	2.16

The average operating leverage for the last 4 years is approximately 3.0 and there is not a lot of variation in the operating leverage from its average in this period.

- 3) The firm has been de-leveraging since the last 4 years. The long term debt to total assets for Britannia is as shown below.

Financial leverage over the years (Source: Bloomberg)									
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Long-Term Debt/Total Assets	12.37%	15.32%	16.97%	38.68%	29.45%	3.35%	1.44%	1.35%	1.55%

The financial leverage over the years 2013 to 2015 is completely different from the firm's financial leverage before 2011-12, hence the risk implications have changes drastically. We conclude that taking the last two years weekly stock price should give us an accurate beta using regression.

The regression output can be summarized as follows

SUMMARY OUTPUT			Coefficients	Standard Error	t Stat	P-value
Regression Statistics						
Multiple R	0.44	Intercept	0.01	0.00	2.90	0.00
R Square	0.20	Nifty Returns	0.78	0.16	4.99	0.00
Adjusted R Square	0.19					
Standard Error	0.04					
Observations	103					

The regression beta is 0.78 with a significant regression and significant coefficient in describing equity returns

Regression beta	0.78
Indian Risk free rate	7.81%
Indian Equity Risk premium	2.94%
Cost of equity	10.10%

But due to a large standard error we reject the beta estimated using regression and take the beta estimated from the implied cost of equity calculations

Cost of debt:

We have taken any interest bearing debt and rental obligations as debt

Britannia has the following interest bearing debt (Source: Notes to accounts, Annual Report 20114-15)

- 1) Term loan from ICICI bank
- 2) Multiple loans and lease commitments
- 3) Interest free loan from the Govt. of Oman, Industrial development bank

The payment obligations and interest payments are as shown

Interest bearing debt		
1	Term loan from ICICI	18.00 Crores
	Maturity	6.00 Years
	Base rate	10%
	Spread	2%
	Principal Repayable this year	3.00 Crores
	Present interest expense	1.80 Crores
2	Other lease and debt	0.73 Crores
	Average Interest rate	16.40%
	Interest expense (Average)	0.12 Crores
	Average Maturity	2.75 Years
	Principle repayment	0.27 Crores
3	Interest free loan	27.60 Crores
	Maturity	3.27 Years
	Annuity	8.43 Crores

The payment schedule of these loans are shown as below

Years	Term loan	Other loans and rentals	Interest free loan
2016	5.16	0.39	8.43
2018	4.80	0.34	8.43
2019	4.44	0.23	8.43
2020	4.08	0.00	2.31
2021	3.72	0.00	0.00
2022	3.36	0.00	0.00

The current market AAA corporate bond rate can be estimated based on the interest coverage ratio to determine the firm's rating and interest rate spread

Britannia's interest coverage ratio is 180x and hence it falls into AAA rating with a spread rate of 0.75% (Courtesy synthetic ratings calculator Aswath damodaran) over the risk free rate. Using this rate we discount the payment obligations to obtain the market value of debt as follows

Assumptions of Debt obligations	
Indian 10 yr yield	7.81%
AAA synthetic rated spread	0.75%
Corporate bond rate AAA	8.56%

	Term loan	Other loans and rentals	Interest free loan
2016	5.16	0.39	8.43
2018	4.80	0.34	8.43
2019	4.44	0.23	8.43
2020	4.08	0.00	2.31
2021	3.72	0.00	0.00
2022	3.36	0.00	0.00
Market value of debts	19.75 Crores	0.83 Crores	23.17 Crores
Book value of debts	18.00 Crores	0.73 Crores	27.60 Crores
Interest rate	12%	16.40%	0%
Net Present MV of debt	43.75 Crores		

The interest free loan's market value is lower compared to the interest bearing debt as the absence of any coupon has a lower market value than its book value. Net cost of debt and its tax adjusted values are calculated as a weighted average of the category of debt's market value.

Marginal tax rate	34.00%
Cost of debt	5.73%
Cost of debt adjusted to tax	3.78%

Finally the weighted average cost of capital is calculated as

All values in Rs million except CMP	
CMP	2805.43
# shares	119925815
Market capitalization	336,443.48
Reserves and surplus	12175.5
Net equity	348,618.98
Market value of debt	437.51
Cost of equity	8.55%
Tax adjusted cost of debt	3.78%
WACC	8.55%

Analyst reports:

1. The margins are likely to remain strong at around 14% on the back of benign raw material prices and benefits derived from its various cost saving initiatives.
2. Britannia is set to relaunch its Tiger brand in the value segment which will not only garner market share from organized players but also position itself to benefit from the eventual implementation of Goods and Services Tax (GST) Bill that would potentially lead to shift in market share from un-organized to organized segment. Also, the company aims to aggressively strengthen its position in dairy products and snack segment (rusk & cakes). The company is currently servicing 75 countries globally, but international business revenue is just 6% of the overall revenue. Its aim is to expand the international business revenue contribution to one-fifth of the overall revenue over the next three to four years, which will be done through new product launches and distribution expansion in key international markets.
3. The GST Bill expected to get passed in the current winter season of the Parliament provides lot of growth avenues for Britannia. The strategies are in place, which will help Britannia to maintain the double-digit revenue growth along with steady improvement in the Operating Profit Margin.
4. Britannia is aiming to expand its base in the value biscuit segment, which is 45% of the overall biscuit market in India. Parle is the market leader in the segment, while Britannia holds 8-10% market share in the value segment (contributes close to 15% of its revenue). In some of the Hindi speaking states, such as Uttar Pradesh, Madhya Pradesh, Rajasthan and Gujarat, Britannia's share is one-fifth of Parle's market share, which provides huge scope for the company to expand its base in these states in near to medium term. Parle's total distribution reach is around 6 million outlets, while Britannia's total reach is about 3.6 million outlets which provides further scope for distribution enhancement. The company will relaunch the cream and cookies format of its Tiger brand in the value segment and increase the distribution footprint in the

near term. The company targets to gain 18-20% market share in the value biscuit segment over the next three years.

5. With an aim to become a total food company, Britannia is focusing on improving growth prospects of its dairy business (5% of the total revenue) and cakes & rusk business which have better margins than the core biscuits. The company is currently in the planning stage and new strategies will be in place over the next six to eight months, which will be implemented to revive the performance of dairy and cakes & rusk businesses. Further, it will try to enter/re-enter in the snack, chocolate and breakfast segments in the medium term. It has already opened a new research & development centre with an investment of Rs65 crore in February 2015 to spur innovations.
6. While the company would continue to face competition from players like ITC, Parle & UNIBIC, the analysts expect the volume growth to gradually improve in the coming quarters because of the recovery in the economic growth and the company's to motive to rely on innovation and premiumisation to drive near-term growth. The price hikes and improved product mix would continue to support the topline growth in the coming quarters. The revenue share of the fast growing non-biscuits bakery products and dairy products is expected to improve gradually. Under biscuits, BIL would continue to focus on driving growth of value added biscuits, which are witnessing increase in demand. Increasing focus on quality and distribution expansion would enable BIL to sustain its market share. Cost cutting initiatives undertaken in the past 12-18 months are yielding benefits in the margins.
7. With premiumisation strategy & backend investment in capacity, BIL's operating margins could continue to improve going forward. However, the gross margin expansion is likely to be limited as the company would like to pass on the benefits of input cost decline to the consumers in the form of sales promotion.
8. The incorporated projections for FY17 of net sales, operating profit & PAT to grow by 14%, 17.1% & 18.7% respectively. Accordingly, EPS for FY17 is estimated at Rs. 64.1. Continued improvement in revenue growth (led by healthy volume growth & premiumisation) and margin expansion has resulted in significant re-rating in the stock price in the last few months.
9. These premium valuations could sustain, as BIL moves to cut costs, increase distribution and improve its product mix, giving it a competitive advantage in packaged foods. BIL sustained its growth momentum by reporting a strong double-digit growth rate in both revenue and profit for FY15 (net sales & PAT up by 13.85% & 74.18% respectively).
10. Healthy growth in challenging times & bright future prospects considering strong product pipeline, expanding distribution & strong brands strengthens the view that BIL's premium valuations could sustain going forward. The BIL's PAT is expected to grow by a healthy 25% on CAGR basis over FY14-17.

<i>Company</i>	<i>Economic State</i>	<i>Industry Stage</i>	<i>Competitive Advantage</i>	<i>Potential Threat</i>	<i>Type of Growth</i>	<i>High growth phase</i>	<i>Transition growth phase</i>
<i>Britannia</i>	<i>Prospective</i>	<i>Growth</i>	<i>Sustainable</i>	<i>High</i>	<i>3-phase growth</i>	<i>5-year</i>	<i>5-year</i>

Historical Growth rates:

1. The historical growth rates are estimated for a period of past 5 years. Viz.,2010-2015.
2. The revenues, post tax Operating income, net income are evaluated and analyzed for these past years.
3. The CAGR of the revenues, operating income and net income for the past 5 years are 15.56%, 45.80%, 46.18%.
4. At the same time, the various growth determinants such as capital expenditure and other forms of investments, depreciation, non-cash changes in working capital and new debts raised during the latest period along with the debts repaid are taken into analysis for the historical 5 year period.
5. The rate of equity is calculated by taking into account the non cash net income and the book value of equity netted of cash.
6. The reinvestment and its consequent reinvestment rate are normalized to calculate the growth in the equity. The various factors that go into the reinvestment rate are normalized in the following manner.
7. The normalized capital expenditure is computed by first taking the average of the net capital expenditures for each of these 5 years and dividing this number by the average operating income over these past 5 years. Then, the normalized net capital expenditure is calculated by multiplying the above ratio of 41.60% by the present year's operating income to arrive at 2947.47mn.
8. The normalized non-cash working capital is estimated by calculating the ratio of average of the working capital and revenues over the past 5 years and multiplying this ratio of 2.511% with the change in revenues of 9457.7mn over the last year to arrive at 237.48mn.
9. The normalized change in debt is estimated using the current book value debt/capital ratio of the total normalized reinvestment (2947.47+237.48) to arrive at 166.78mn.
10. The normalized reinvestment is thence computed to be 27.69% as per the following equation:
$$\text{Normalized reinvestment rate} = \frac{\text{Normalized reinvestment}}{\text{non cash net income}}$$
11. Now the growth is calculated by multiplying the normalized reinvestment rate with the non cash return of Equity(ROE) to give the expected growth of 15.688%.

12. The expected growth rate is analyzed to last for an initial future period of 5 years since the capital expenditures that the company incurred in the last two to three years will reap benefits in the form of high growth for the initial few years.
13. Thereafter, the growth would steeply fall down as the fruits of the capex would start slowly dwindling down from the high growth period. Hence, the growth rate would start falling down whereas the reinvestment rate would slowly increase in order to maintain a reasonable rate of equity.
14. After this phase of 5 more years, the growth would attain a stable economy growth rate which is assumed to be as a nominal growth rate (in other words the risk-free rate) of 7.70%.
15. Therefore, in the above valuation analysis, the type of growth phase is considered as a three phase growth rate and the length of the high growth period is 5 years in the first phase and the transition period is also analyzed to be 5 years before the growth stabilizes down to the stable economy rate.

Growth determinants and their analysis:

The above calculated growth determinants are entirely estimated keeping in view of the capital expenditures, market potential, and R&D investments taken up by the company in the recent years especially after the advent of the Mr. Varun Berry, Managing Director.

The company is in market penetration and market development phase. It is tapping the new rural markets by making use of the latest government bills and efficient distribution system with improvement in roads and infrastructure.

The company is also targeting value segments by launching new products like nutria cracker, good day chunkies etc. All these are believed to give the company a sustainable competitive advantage and estimated to go a long way in revitalizing the company to increased growth rate.

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