WM MORRISONS PLC

Recommendation: **BUY**

Date: 25/04/2018

Market Capitalization	£5.53 Billion
Equity Value	£6.49 Billion
Potential	**17.3% (Upside)**
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HIGHLIGHTS

- Morrisons' divestment of their unprofitable convenience business has allowed them to turn to a strategy of capital light rebuilding of their core business.
- Convenience business sold has since gone into administration.
- Morrisons have successfully turned their business around after losses in 2014 and 2015 realizing increased like for like sales increases for the past two years. This growth is mainly due to their renovations of their core supermarket portfolio.
- Underlying profit before tax: GBP 337 million (Up by 11.6%)
- Control of the entire supply chain by vertical integration,
- Very strong balance-sheet and cash flow with largely freehold estate and a low level of debt,
- One of the lowest imported items ratios in the industry brings a strong position amidst weakening pound levels and BREXIT uncertainties,
- Increase in their wholesale business by deals with Amazon and Ocado will increase their revenues further.
- Discount stores remain a dominant force in the UK increasing their market share by roughly 5% y-o-y. This impact will result in Morrisons market share dropping from 10.53% at present to 10.19% by 2023,

TIMELINE

1899
- **Egg and butter merchant William Morrison begins his business, set to become the company we know today.**

1952
- **Sir Ken Morrison, aged 21, took over the small group of Bradford market stalls from his father.**

1961
- **Sir Ken opens his first supermarket in Bradford, 'Victoria', selling fresh meat, fresh fruit and vegetables and other provisions.**

1967
- **Ongoing expansion and plans for further growth lead the company to go public. The share offer is 174 times over-subscribed as more than 80,000 investors try to purchase shares.**

1980
- **Sir Ken opens Farmers Boy - a purpose-built fresh food factory that trades as a wholly-owned subsidiary of Morrisons.**

1988
- **The first Morrisons distribution centre, Wakefield 41 (situated close to the M1 motorway), goes into operation.**

1999
- **We open our 100th store in Nelson and our first store in the South - Erith. We open a food processing factory called Farmers Boy at Greenside.**

2004
- **Morrisons acquires Safeway and opens its first store in Scotland in Kilmarnock, and our first southern produce manufacturing site opens in Thrapston, Northamptonshire.**

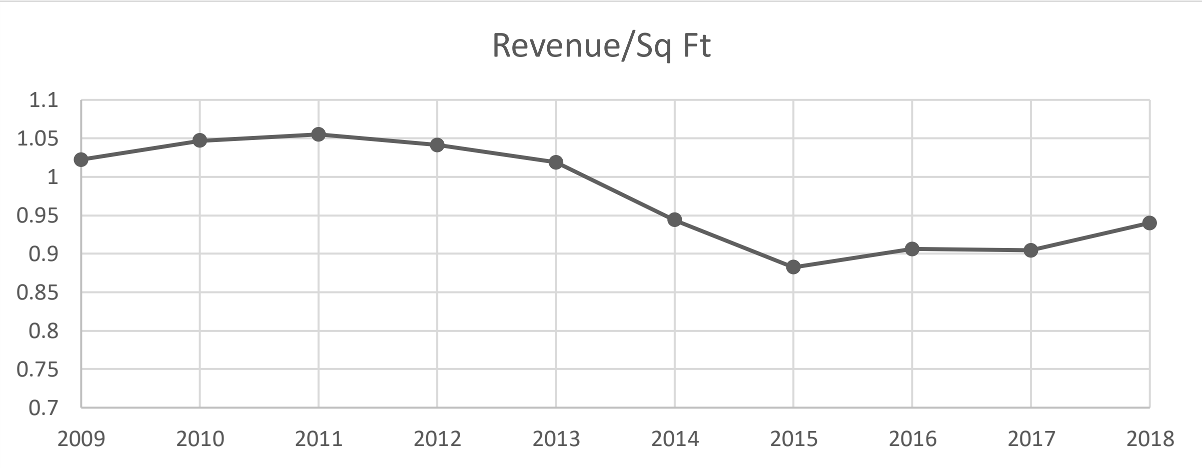
2005
- **We extend our manufacturing estate in Rathbones Bakery, Rushden produce and Turriff abattoir.**

2014
- **Using technology developed by Ocado, Morrisons launches its much-anticipated online food delivery service and begins a national roll-out starting with homes across the Midlands.**

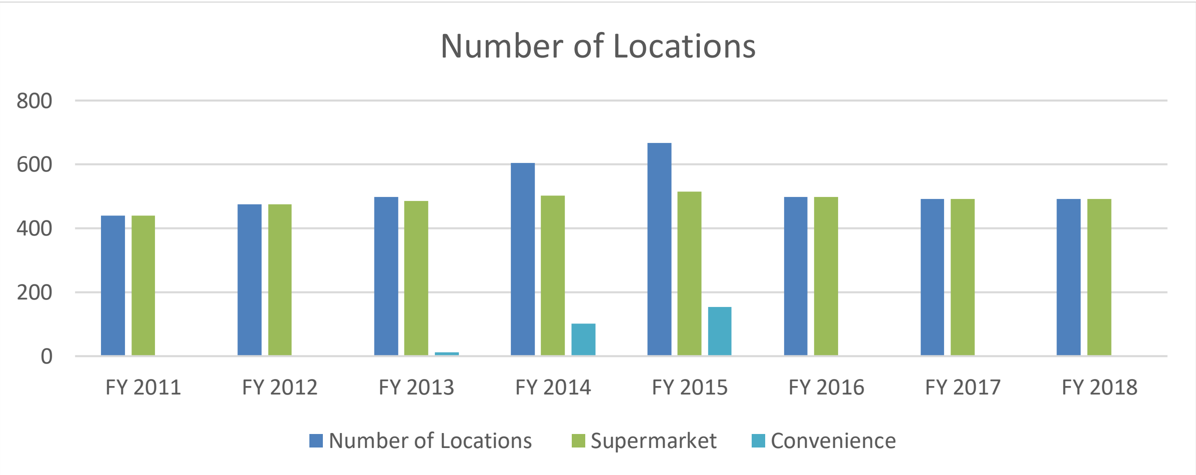
2016
- **Amazon and Morrisons extend partnership to launch same day delivery service.**

2017
- **A Fire broke out on one of the production lines. In an amazing turnaround, less than three days later, the first loaf of bread came off the production line and seven days later is was business as usual.**

Morrisons went through a rough period in FY 2014 and FY 2015 which resulted in significant losses for the company. This was in line with a downturn in the whole retail grocery market in the UK due to several factors including food deflation. Unfortunately for Morrisons, the downturn in the market coincided with their expansion into the convenience store sector. After two years of losses, they decided to scrap the convenience store plans, selling its entire convenience store portfolio of “Morrsions Local” to a retail entrepreneur Mike Greene who rebranded them to “My Local” stores. That transaction occurred in the FY of 2016, in the same year Morrisons sold off 16 of their supermarkets. These sales were in line with Morrisons’ new strategy of rebuilding their core supermarkets. In essence, they want to make their current portfolio of supermarkets more profitable by increasing revenues in a *capital-light* fashion. Upon reflection it was a very good move by management in divesting their convenience store chain. After the sale, sales in the store decline even further and in 2016, just over a year after the sale the “My Local” chain had gone into administration closing 90 of the 125 stores (The Telegraph, 2016).



Graph 1



Graph 2

By looking at Graph 1, it is clearly visible that Morrsions was compelled to change their business model. A great indicator of how well a company is doing in this industry is their revenue per square foot. As it can be seen, there is a sharp decline in this figure during FY 2014 and FY 2015. This is why Morrisons opted to change their strategy and shifted their focus from expansion towards improving the productivity of their current portfolio. This strategy which they aptly named "Fresh Look" involves renovating their core supermarket stores into a new brand. The process began in 2016 and seems to have had a positive response with a good jump in revenue/sq ft in FY 2018 for the first time since FY 2011. Their new strategy which also involves growing their wholesale business is capital light and has produced favorable free cash flows. It is with this strategy in mind that we have valued Morrsions and its impact is evident in the spreadsheet of forecast.

VALUATION

REVENUE

Morrisons derives its revenues from three major sources – Retail sales (77%), Fuel sales (21%) and Wholesale (2%). This is mentioned in chart 1.

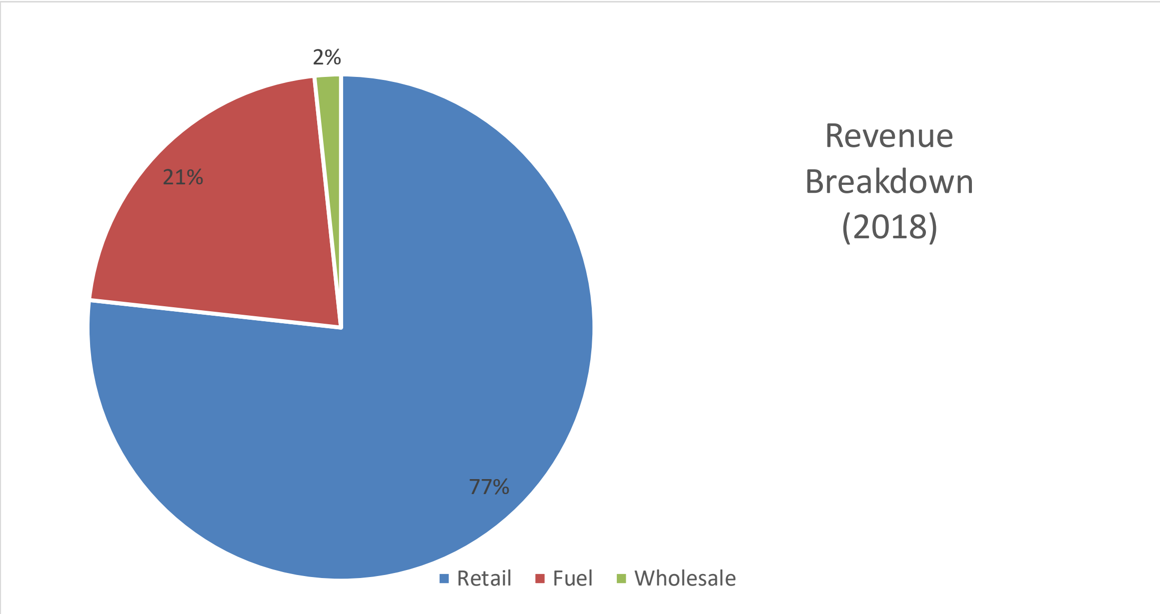
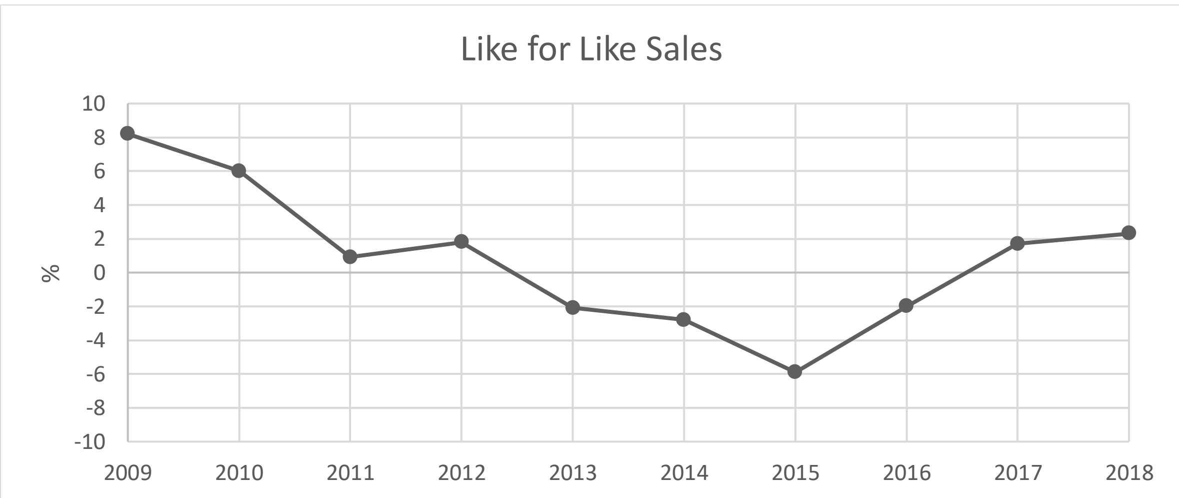


Chart 1

1. RETAIL

In order to forecast the retail revenues, we looked at the revenues per square foot of retail space. Using this figure, we must simply forecast the amount of retail space which Morrisons will have and it would be possible to figure out the revenues.



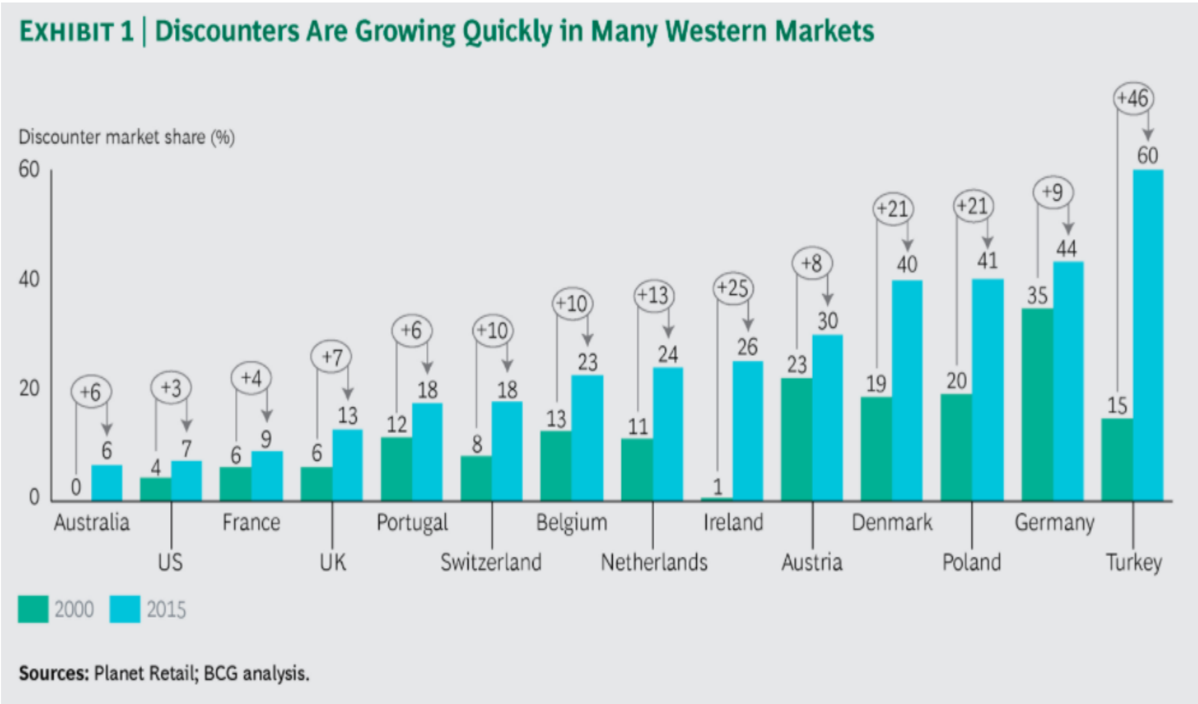
Graph 3

FRESH LOOK CAMPAIGN

There were two factors that impacted the revenues; the first is Morrisons Fresh look campaign which has resulted in retail like for like sales growth of 1.7% in FY 2017 and 2.3% in FY 2018. To put this into context, it was the first yearly like for like sales growth since 2012, which is clearly evident in Graph 3. We forecasted that this growth in like for like sales would result in a positive increase in revenues per square foot by half the CAGR (1.8%) of the last two years for the next two years, in line with the planned continued rollout of the Fresh Look campaign. Followed by an increase in 0.3x CAGR in line with the last 60 stores that had yet to be influenced by the Fresh Look campaign by FY 2021. After that the benefit of the campaign would cease to provide further increase in growth.

DISCOUNT STORES

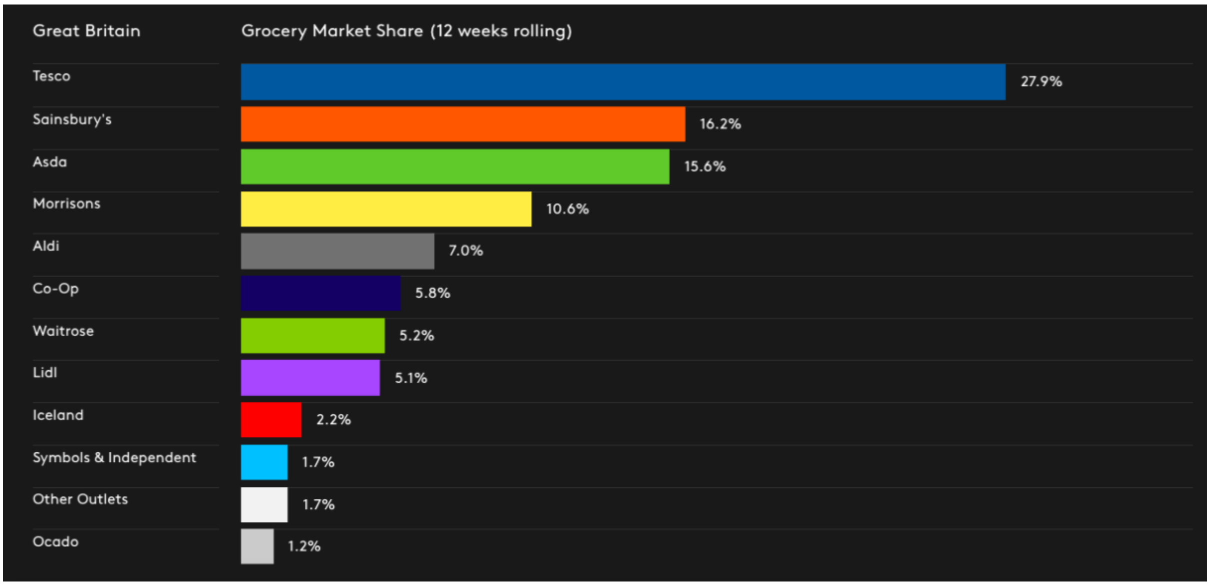
The second factor that influenced the revenues of Morrisons was the impact of discount stores such as Aldi and Lidl. These stores have been eating up market share in the UK as well as all over Europe for years.



Graph 4

Graph 5

As it can be clearly seen in the Graph 4 and Graph 5 (extracted from a research conducted by BCG), there is a general trend with the impact of discount stores in this industry. They are currently in an expanding phase in the UK with a combined Market share of roughly 12%. This market share is projected to grow at a rate of 5% per annum according to IGD.



Graph 6 Source: Kantar Worldpanel

The impact of this on Morrisons' market share is a drop from 10.6% in 2018 (Graph 6) to 10.19% by 2022.

In order to assess the extent of the impact of loss in market share on the revenues, we regressed the historic change in revenues with the change in market share. The result of this regression (Table 1) was that a 1% decrease in market share results in a 20% loss in revenues. This was used to impact the revenue growth of Morrisons.

Regression Statistics	
Multiple R	0.7153
R Square	0.5117
Adjusted R Sq	0.3897
Market Share Impact on Revenue	20.1935
Observations	6

Table 1

The final revenues per square foot can be seen in Table 2.

Particulars	**Actual**									**Forecast**				
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019E	FY 2020E	FY 2021E	FY 2022E	FY 2023E
Rev/sq ft (£mill/000 sqft)	**1.047**	**1.055**	**1.041**	**1.019**	**0.944**	**0.882**	**0.906**	**0.904**	**0.940**	**0.937**	**0.945**	**0.949**	**0.949**	**0.948**
Change	*2.413%*	*0.791%*	*-1.318%*	*-2.149%*	*-7.360%*	*-6.516%*	*2.665%*	*-0.161%*	*3.915%*	*0.134%*	*0.891%*	*0.518%*	*-0.039%*	*-0.040%*

Table 2

RETAIL AREA FORECAST

Now that the revenue per square feet is forecasted, all that is needed to calculate the total revenues of retail is the forecast retail area of the Morrisons portfolio. In order to do this we first calculated the average sq ft of a supermarket by taking the total area divided by the number of supermarkets. This figure was found to be 28,000 sq ft. In 2019, according to the 2018 preliminary report, management has said that they will open 6 new supermarkets. They estimate that this will add to the total retail space by 0.2%. Under our estimates for average size of a supermarket three supermarkets would increase the estate by 0.25%. We can therefore reasonably say that our estimates are accurate. Forecasting further than 2019 we assume that Morrisons will have to start building new supermarkets in order to grow the firm, however we believe they will be more conservative with their expansions. They will know only too well the results of over expansion. With this in mind we have forecasted 6 supermarkets to be built in 2020 and 10 per year in the years following. This results in growth in retail space of far less than their pre-2015 historic average (Table 3).

PARTICULARS	ACTUAL								FORECAST				
	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23
Total Retail Area ('000 Sq ft)	12261	12904	13421	14233	14732	14142	14094	14094	14130	14301	14587	14873	15159
Change	394	643	517	812	499	-590	-48	0	36	172	286	286	286

Table 3

By multiplying the revenue per square feet by the square foot, we found the total retail revenue which is shown in Table 4. In order to take into account the fact that new stores would not immediately produce revenues in line with established stores we multiplied the new area added by 0.5x the rev per square ft for the first year.

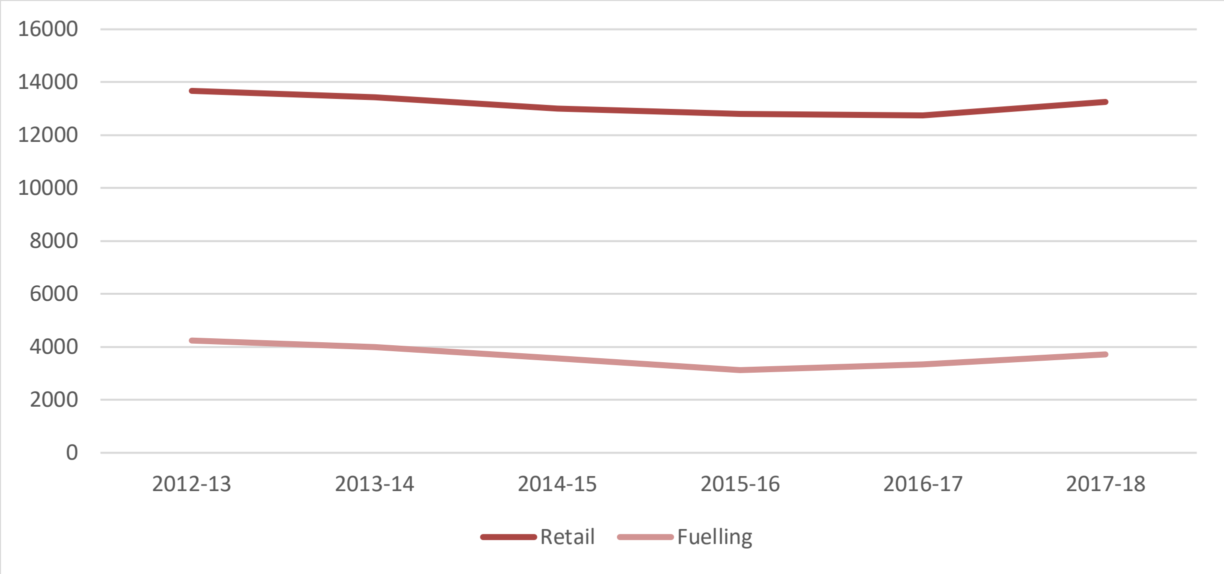
PARTICULARS	ACTUAL									FORECAST				
	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23
Sale of Goods In-Stores	12423	12937	13436	13674	13434	12999	12811	12747	13246	13297	13497	13786	14053	14320
Change	*9.2%*	*4.1%*	*3.9%*	*1.8%*	*-1.8%*	*-3.2%*	*-1.4%*	*-0.5%*	*3.9%*	*0.4%*	*1.5%*	*2.1%*	*1.9%*	*1.9%*

Table 4

FUEL REVENUES

Morrisons entered into the fuelling segment during the financial year 2004-05, and since then have grown to become quite prominent. They currently operate 334 fuelling sites across the UK and have a market share of 9.9% (in terms of the motor fuel sold in petrol stations in the UK during the previous financial year). Also, they are the third largest motor fuel retailer in the UK in terms of the average motor fuel volume sold per petrol station of 10526 kl/year, just below Sainsburys and Tesco. However, they have considered the core principles of IFRS 8 to come to a conclusion that they have only one operating segment – Retailing. Therefore, there are no separate financial statements available for their fuelling operations, making it hard to conduct a sum-of-parts analysis on the group.

Moving on, we conducted some quantitative analysis on the fuel revenues generated over the past few years (2012-2018). We started off by plotting the historical figures of their Fuelling revenues viz-a-viz their Retailing revenues and obtained the following results (Graph 7):



Graph 7

We then moved on to conduct a correlation and regression analysis to find the magnitude of co-movement as well as the causal relationship between the fuelling revenues and retailing revenues generated over the years. We obtained a correlation coefficient of 0.98, which is extremely high and means that for every one £ movement in retailing revenues, there is a 0.98 £ movement in fuelling revenues. This also shows that there has been a quite significant movement in fuelling revenues if we considered the growth rates.

In our regression analysis, we considered both, the impact of retail revenues on fuelling revenues and the impact of change (growth) in retail revenues on the change (growth) in fuelling revenues. We obtained the following results as displayed in Tables 5 and 6 below:

IMPACT OF RETAIL REVENUES ON FUELLING REVENUES	
Regression Statistics	
Multiple R	0.978464
R Square	0.957393

Table 5

IMPACT CHANGES IN RETAIL REVENUES ON CHANGES IN FUELLING REVENUES	
Regression Statistics	
Multiple R	0.90016
R Square	0.810287

Table 6

Since these correlation and regression results are very high, we believe that the fuelling revenues are mainly driven by their retailing revenues. We used the figures from Table 6. For the purposes of our analysis. One important reason that we could identify was that they are quite different when compared to traditional fuel retailers such as, BP or Shell. They have their *own grocery outlets* at all of their forecourts and provide additional services such as *carwash*, on-site maintenance and support, etc, and the benefit of using their “more” points obtained by shopping at their retail outlets.

We believe the retail operations to be very closely integrated with the fuelling operations and therefore believe that projecting the fuelling revenues in-line with the retail revenues is our best estimate.

WHOLESALE REVENUE

Morrisons have been successfully targeting online and convenience outlets in order to grow their wholesale division. Some of their customers include Amazon, Ocado and McColl’s (UK Convenience stores). The wholesale division in Morrisons was boosted by their announcement that they were bringing back the Safeway brand for wholesale. Safeway, originally owned by the US group was bought by Morrisons in 2004 and all the stores were rebranded as Morrisons stores. However in 2017 Morrisons announced they would be bringing back 400 Safeway branded products announcing a deal to wholesale them to McColl’s who own 1,300 convenience stores as well as 350 newsagents. They are now supplying over 1700 stores across the UK according to the 2018 earnings call. This growth in wholesale has resulted in a CAGR over the past two years of 24%. Management expect the wholesale division to be worth £700 Billion by the end of 2019 and £1 Billion in the future. We believe this figure is optimistic in such a competitive industry. Therefore we have forecasted the growth in wholesale in line with the CAGR of 24%. While a 24% increase may seem high despite of it being less than management’s expectations, the high growth is justified as it is a relatively new business. As mentioned they have just started the new Safeway line, which has been sold to several convenience stores. They also sell wholesale to online retailers such as Amazon and Ocado. This is Morrisons’ way of capturing the significant growth in the online and convenience markets with low amounts of capital expenditures.

CONSOLIDATED REVENUE

As it can be seen in table 7, we have forecasted a slow-down in revenue growth compared to the 2018 figure. This is mainly due to the fact that Morrisons have not built any new store since 2016. The subsequent increase in revenue growth in the following years is due to the forecasted increase in new supermarkets and the increase in their wholesale division.

Particulars	Actual						Forecast			
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019E	FY 2020E	FY 2021E	FY 2022E	FY 2023E
Revenue	**17,680**	**16,816**	**16,122**	**16,317**	**17,262**	**17,319**	**17,659**	**18,135**	**18,611**	**19,121**
Growth	*-2.407%*	*-4.887%*	*-4.127%*	*1.210%*	*5.792%*	*0.328%*	*1.967%*	*2.692%*	*2.625%*	*2.740%*
Sale of Goods In-Stores	13,434	12,999	12,811	12,747	13,246	13,297	13,497	13,786	14,053	14,320
Fuel	3,984	3,576	3,124	3,351	3,726	3,740	3,797	3,878	3,953	4,028
Wholesale	262	241	187	219	290	362	451	563	703	877

Table 7

COST OF GOODS SOLD & MARGIN

We found that the main line item driving margins was the Retail division which is to be expected. Morrisons do not breakdown their COGS in their reports so we had to make some assumptions in order to calculate the margins on the different divisions. The total margin on the revenues was 3.66% in 2018 however this figure incorporates fuel, wholesale and of course retail. Fuel and wholesale have lower margins than retail. In order to calculate the margin on retail we looked at comparable firms whose revenues come primarily from fuel stations such Applegreen Plc (APGN). The historic margins came to roughly 1%, therefore this is the figure we took as the margin on Morrisons fuel revenue. We found the margins on wholesale in a similar fashion, observing Bookers' (BOK), who are now owned by Tesco, historic margin. This figure was an average of 2.5%. This was the figure we used for margins on Morrisons Wholesale division. So, as you can see from Table 8. The actual margins on retail are higher than the total margins (4.43% compared to 3.66% in 2018). We forecasted that there was going to be a further squeeze on Morrisons' margins of 0.5%. This is due to the competitive nature of the industry. If Morrisons want to hold their market share compared to the other non-discount retailers, increase their revenues per square foot and not accelerate the losses to discount stores, which are three assumptions we have used in our forecast, this will be a necessary criterion. This low margin (lowest in the industry) will allow them to be competitive, continue rebuilding their business and grow in the future.

Gross Profit	ACTUAL					FORECAST				
	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23
Fuel & Wholesale	46.39	41.79	35.92	38.99	44.51	46.45	49.25	52.86	57.10	62.20
Retail	1,027.61	719.22	581.09	565.02	588.49	524.28	532.16	543.53	554.08	564.61
Total	**1,074.00**	**761.00**	**617.00**	**604.00**	**633.00**	**524.32**	**532.20**	**543.53**	**554.08**	**564.61**
Retail Margin	7.649%	5.533%	4.536%	4.433%	4.443%	3.943%	3.943%	3.943%	3.943%	3.943%

Table 8

OPERATING INCOME / EXPENSES

The group's operating profit is computed by considering the impact of operating income and operating expenses. It includes restructuring costs but excludes impairments and provisions for onerous contracts, profit/loss on disposal and exit of properties and sale of business/investments and all other items impacting the group's operating profit that does not relate to its principle activities on an on-going basis. The historical levels of operating income and operating expenses as a percentage of sales is displayed in the Table 9

In Millions of GBP except Per Share	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
+ Other Operating Income	0.46%	0.46%	0.45%	0.47%	0.45%
- Operating Expenses	1.64%	3.29%	1.80%	1.71%	1.59%
+ Selling, General & Admin	2.01%	3.29%	2.17%	1.50%	1.58%
+ General & Administrative	2.01%	3.29%	2.17%	1.50%	1.58%
+ Other Operating Expense	-0.37%	0.00%	-0.37%	0.21%	0.02%

Table 9

These were then extended to an analysis dating back to FY 2009 and their 8-Year and 3-Year normal averages and standardized averages were computed to identify the best forecasting factors for these line items.

We found the 3-year normal averages to be the best predictor of all of these line items and therefore we used them to forecast the future levels of operating income and operating expenses. These growth factors are presented in Table 10 below.

PARTICULARS	3-Y AVERAGE
+ Other Operating Income	0.45%
- Operating Expenses	1.70%
+ Selling, General & Admin	1.75%
+ *General & Administrative*	1.75%
+ Other Operating Expense	-0.05%

Table 10

A detailed analysis along with the relevant tables is presented in the appendix section of this report.

WORKING CAPITAL

Working capital and its management are the most important aspects to be considered when valuing a company operating primarily in the retail grocery segment. Therefore, we conducted a comprehensive analysis on their historical figures of current assets and current liabilities to identify their operational efficiencies and control over the management of working capital. To begin with, since the group is into quite a lot of segments such as - supermarkets, online, fuelling, property rental & leasing, wholesale, and convenience (now discontinued), the working capital requirements of each of these operations are considerably different and varied. Therefore, conducting any quantitative analysis before considering the impact of each of these operations individually would not make any sense.

We found that the impact of other, non-related segments, such as fuelling (Impact of derivative and hedging instruments, forward contracts, etc) or rental property (Misc. Assets held for sale, marketable securities, etc), have a very insignificant impact on the short term assets and liabilities of the entire group (Current assets - Table 11 and Current liabilities – Table 12). This is both, because of the difference in the scale of their segmental operations as well as the working capital needs across their segmental operations.

PARTICULARS	FY 2009	FY 2018
+ Cash, Cash Equivalents & STI	**30.7%**	**25.5%**
+ Accounts & Notes Receivables	**9.6%**	**11.6%**
+ Inventories	**46.3%**	**53.5%**
+ Prepaid Expenses	**6.0%**	**7.1%**
+ Derivative & Hedging Assets	0.0%	1.2%
+ Assets Held-for-Sale	0.0%	0.3%
+ Misc ST Assets	7.4%	0.8%
Total Current Assets	100.0%	100.0%

Table 11

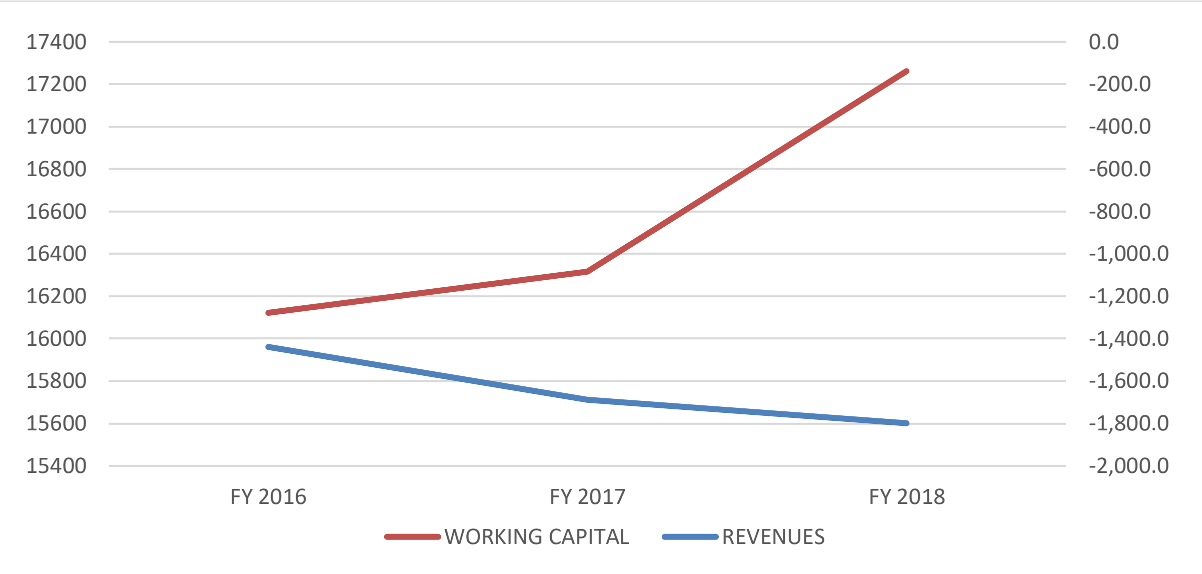
PARTICULARS	FY 2009	FY 2018
+ Accounts Payable	**71.29%**	**73.68%**
+ Accrued Taxes	6.72%	3.51%
+ Other Payables & Accruals	**21.39%**	**20.06%**
+ ST Debt	**0.05%**	**2.34%**
+ Derivatives & Hedging	0.00%	0.42%
+ Misc ST Liabilities	0.00%	0.00%
Total Current Liabilities	**100.00%**	**100.00%**

Table 12

Table 11 shows the detailed figures of current assets for the year FY2009 and FY2018 (for a 10-year comparison) and Table 12 shows the detailed figures of current liabilities for the year FY2009 and FY2018 (for a 10-year comparison).

It can be clearly observed by looking at the figures that the current assets and current liabilities relating to the core supermarket operations (bolded in red) account for the majority of their working capital and therefore, we can use these figures to forecast future levels of working capital requirements considering the growth in their supermarket operations.

Now that we have clarity on this part, we move on to compare the relationship of working capital with their revenues. This is displayed in Graph 8 below.

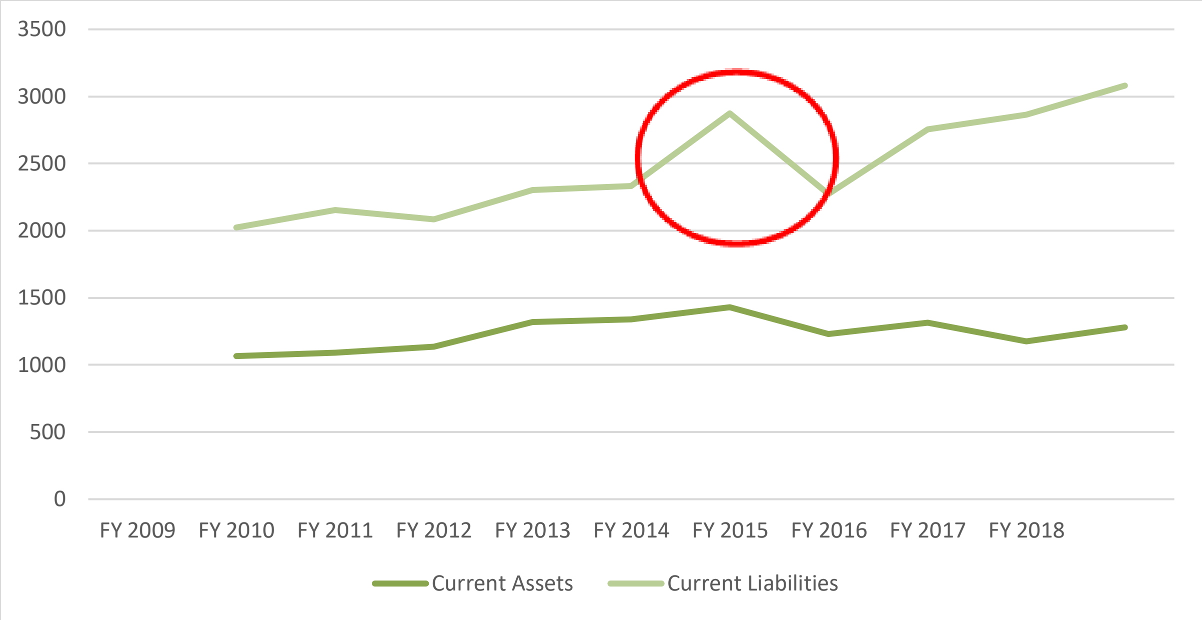


Graph 8

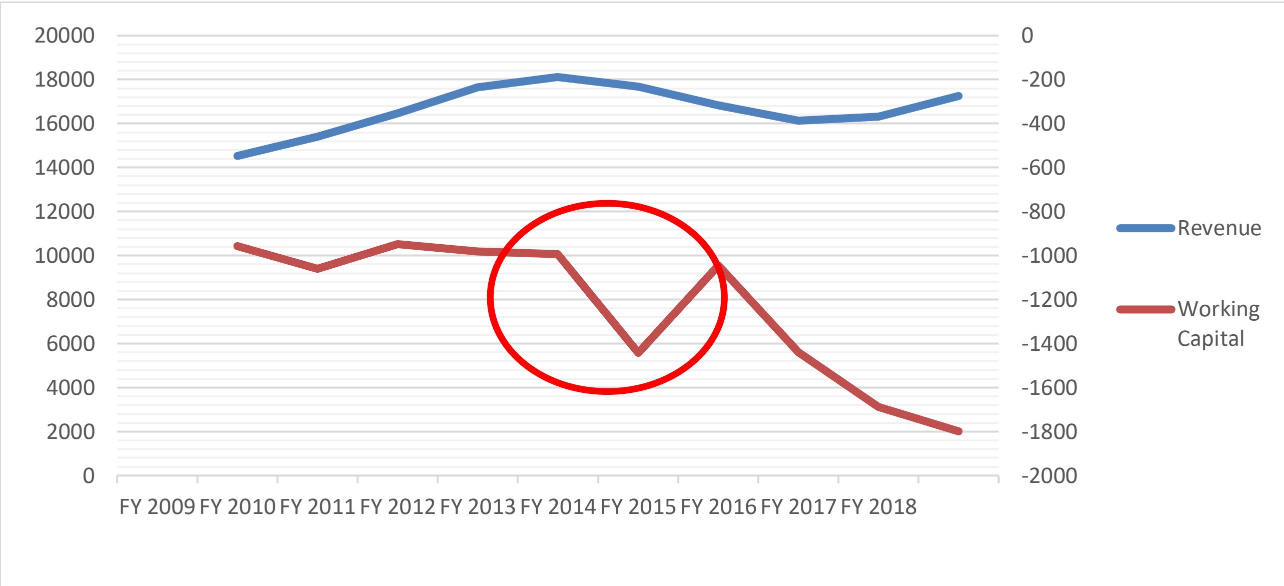
As it would usually be expected, the working capital seems to have a fairly negative relation with the revenue. This is because of the nature of the grocery industry. Supermarkets procure most of their SKUs (Stock keeping Units) on credit basis which leads to high amounts of current liabilities and negative working capital on the balance sheet. A decreasing level of working capital is linked to an increasing level of revenues and vice-versa.

After concluding that the relationship between working capital and revenue is “normal”, we move on to identify any unusual bumps or dips in the figures that could potentially lead to abnormal growth rates or averages that we might use for our forecasts.

Graph 9 shows a combined line graph of current assets and current liabilities for the period FY 2009 to FY 2018. And Graph 10 shows a combined line graph of working capital and revenues for the period FY 2009 to FY 2018.



Graph 9



Graph 10

The relationship between revenues and working capital (Graph 10) shows an unusual dip during FY 2015 which is encircled in red. This can be traced to an abnormal increase in the current liabilities for the same year, which is encircled in Graph 9. This was the year when they sold their entire convenience stores business (m-local) to a retail entrepreneur, Mike Greene. This was also the year when they sold off 16 supermarkets and decided to change their strategies and business outlook.

Since we have identified an unusual bump in the current liabilities (Graph 9), leading to an unusual dip in the working capital with respect to revenues (Graph 10), we went ahead to analyse each line item separately and standardize the forecast rates by nullifying the impact of this event.

Lastly, we computed each and every line-item of current assets and liabilities as a percentage of revenue and took 10-year, 5-year, and 3-year averages (both, standardized and normal) to observe the trend and make robust assumptions. This led to our projections for working capital changes which are mentioned in detail in the appendix section of this report.

CAPITAL EXPENDITURE

It can be seen from the revenues section of this report that there are two main aspects of the Morrisons forecast that will impact their Capital Expenditure. They are their significant refurbishment costs from the "Fresh Look" program and the expenditure on future new stores. Morrisons spent an enormous amount of capital on their expansion into convenience and it cost them dearly. Therefore they have been cautious to spend capital in the recent past, with all of their strategies accompanied by the phrase "capital-light".

FRESH LOOK CAMPAIGN

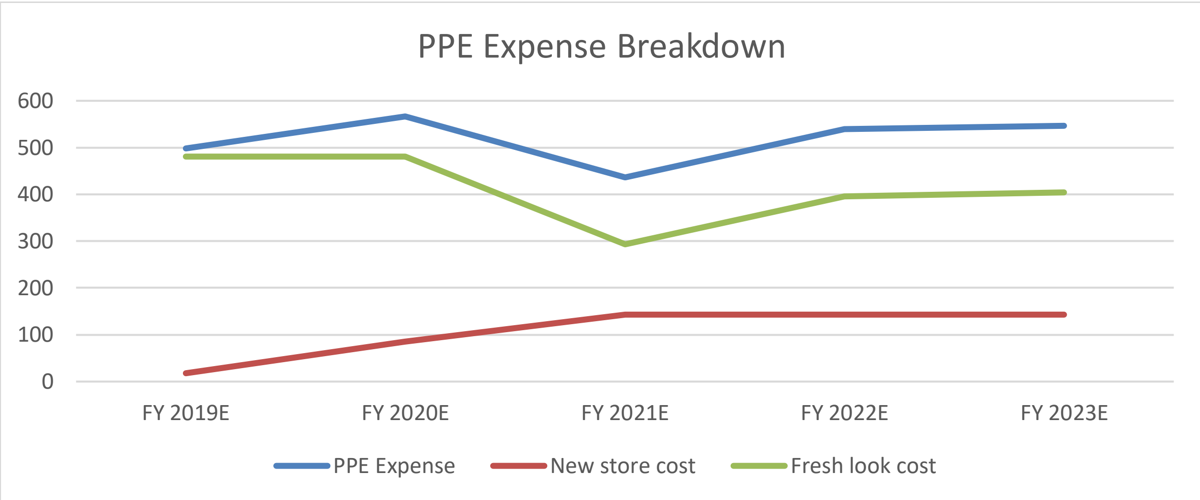
The majority of Morrisons' capital expenditure since 2016 has come from their refurbishments in line with their new rebranding of stores. The plan was announced in FY 2016 and 230 stores have been upgraded since then. Management has indicated that they wish to refurbish their entire portfolio with this new brand. In order to calculate the cost of these refurbishments, to the forecast the future costs we divided the capital expenditure on PPE for the years of the campaign divided by the number of stores upgraded. Thankfully Morrisons have not built any stores in that time period so we can assume all of the expenditure was on refurbishment. The average price to refurbish a store with a "Fresh Look" was £4.8 Million. Under managements guidelines of refurbishing the whole estate we have forecasted that they will continue refurbishing at the current rate of 100 per year for two years and the finish the last 61 stores in 2021. Multiplying the number of stores by cost per store we found the capital expenses involved in this project. Beyond 2021 we forecasted that the cost to refurbish a store would drop to £3.7 Million and the number of stores they would have to refurbish in a year was 1/5 of their entire portfolio. This means a store is refurbished every 5 years. The forecasted figures for this line item can be seen in Table 13.

PARTICULARS	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019E	FY 2020E	FY 2021E	FY 2022E	FY 2023E
Total Capex	796	980	1020	520	365	419	500	558.5	606.6	490.3	595.2	599.2
PPE Expense	724	846	835	385	266	374	429	498.5	566.6	436.3	539.0	546.6
New store cost	-	-	-	-	-	-	-	17.8	85.8	143.0	143.0	143.0
Fresh look cost	-	-	-	-	-	-	-	480.8	480.8	293.3	396.0	403.6
Expense (Intangibles)	**72**	**134**	**185**	**135**	**99**	**45**	**71**	**60**	**40**	**54**	**56**	**53**

Table 13

NEW STORE COSTS

The other factor that, when combined with refurbishments, makes up the PPE expenditure is the cost of new stores. As mentioned in the revenue aspect of this report, Morrisons' plan is to open 3 new supermarkets next year. We have forecasted that they will build 6 in the following year and 10 in the subsequent years. We estimated the average size in sqft of a supermarket as 28,600 sqft by getting an average of the historic total area/number of supermarkets. As Morrisons do not breakdown their capital expenditure it was difficult to calculate their cost per sqft of new retail space. We therefore used a figure from a competitor (Sainsbury's) who does breakdown their capital expenditure. Assuming it cost the companies the same amount to build a new store we could use the figure of £500 per sqft of new retail space. Using these values along with the values for our fresh look campaign we came to a figure of £498 Million for capital expenditure in 2019. This is very close to managements' expectations for 2019 of £500 in capital expenditure giving us confidence in our analysis.



Graph 11

INTANGIBLE EXPENDITURE

This figure was quite hard to predict. It was forecasted by management that £100 Mn would be spent on this in the coming two years £60 of which will occur in 2019. After that we forecasted as an average of the previous 5 years.

NON CASH CHARGES

Depreciation and Amortization were the two primary sources of non-cash charges and the group had a good balance between both of them. The actual and forecasted figures are displayed in Table

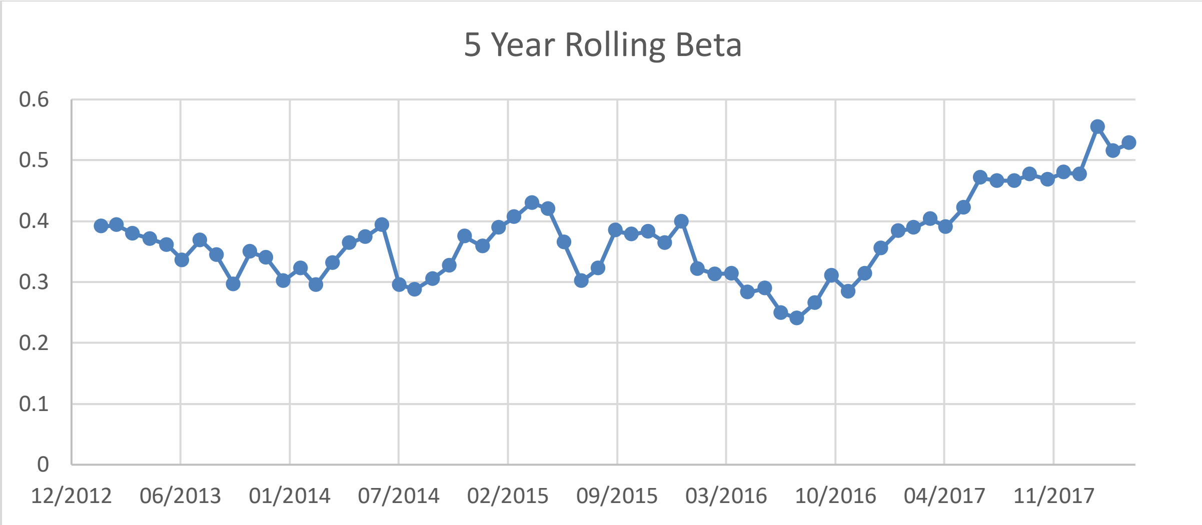
Depreciation was forecasted at the historic ratio of PPE. PPE was forecasted by adding on the capital expenses year on year.

The Amortization figure is significant and comes from software development costs. This figure has been decreasing since 2016 so we forecasted a continued decrease at the 6% CAGR.

PARTICULARS	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019E	FY 2020E	FY 2021E	FY 2022E	FY 2023E
PPE	10,568	11,554	12,350	10,675	10,552	10,552	10,981	11,480	12,046	12,482	13,021	13,568
D&A	340	368	393	387	384	399	418	409	420	428	439	451
Depreciation	319	339	341	317	288	306	334	331	347	360	375	391
Amortisation	21	29	52	70	96	93	84	79	74	69	64	60

Table 14

BETA



Graph 12

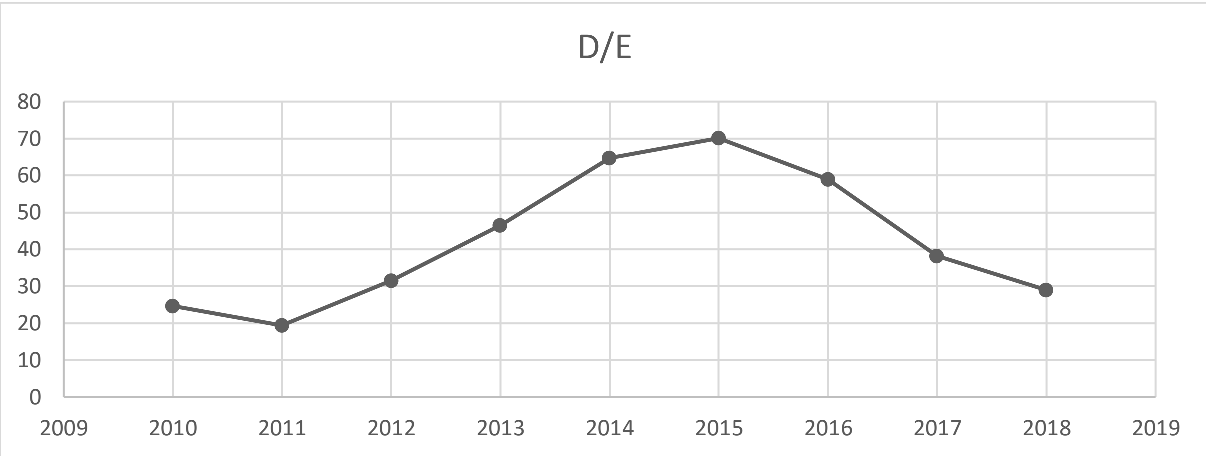
The 5 year rolling beta estimates were found by regressing the monthly returns of Morrisons against the FTSE 100 monthly returns using the LINEST function in excel. As you can see historically the figure fluctuates between 0.3 and 0.4 with a historical average of 0.37. In the past year however the beta has trended upwards (Graph 12). This could be due to the impact of Amazons move into the Grocery sector with its acquisition of Wholefoods in June 2017. It could also be due to the risk involved with discount stores market share increases. Due to this we believe the beta should be higher than its historic average however they are still a staple industry which should be less risky than the market as a whole. With this in mind we used a weighted calculation to estimate our beta. We first gave the historical average a weighting of 0.25, we then took an average of the past year and weighted this as 0.5. We then took a figure of 0.8 to account for the possible upward trend and weighted this by .25. This meant our figure for beta was 0.58. When the beta was unlevered it came to 0.48.

ADJUSTED PRESENT VALUE

DEBT/EQUITY RATIO

It is clear from figure 10 that the debt to equity ratio is not constant. This is due to the increased debt levels due to their expansions from 2013-2015. Management has been actively and successfully trying to reduce Morrisons' debt levels. Therefore, cannot reasonably say that the debt to equity levels will remain constant in future.

The debt level is currently at roughly £1 Billion which is the figure we expect that it will remain at in future. Therefore we used the adjusted present value, calculating the PV of the all equity cash flows as well as the present value of the tax shield of this constant debt amount.



Graph 13

MARKET PREMIUM

Market premium was taken from the NYU Stern data base of market risk premiums. The risk premium for the UK was 6.22%.

RISK FREE RATE

The risk-free rate was taken as the yield for a UK government 10-year bond. 0.5% was taken to account for the risk premium associated with such bonds as well as the expected 0.5% increase in interest rates in the UK. Interest rates are expected to increase in order to combat inflation. This gave a figure of 1.55% for the risk-free rate.

COST OF EQUITY

Using the figures calculated above as well as the capital asset pricing model we found that the cost of equity for Morrisons was 5.15%.

TAX

The UK Government have announced a reduction of the corporate tax rate in the UK from 19% to 17% in 2020. This will affect our forecasts from the FY 2021 onwards. We have taken the tax rate going forward as 17%.

TAX SHIELD

The tax shield was found by using the risk free rate multiplied by the amount of debt to find the interest on the debt. Multiplying this by the tax rate we found the tax shield. Dividing the Tax shield by the risk free rate gives the PV of the tax shield. All of this is outlined in Table 8.

TERMINAL GROWTH RATE

The terminal growth rate was calculated using forecasts by the OECD for the GDP of the UK until 2060. They forecasted the GDP to be 5.945 Trillion pounds by 2060, we found the CAGR from the current GDP until this 2060 figure to be 1.97%. This is the figure we used as the terminal growth rate.

Future Debt	£973
Risk free rate	1.55%
Interest on debt	15.0426
Tax Rate	17%
Tax shield	2.56
PV Tax Shield	165.41

Table 15

VALUATION RESULTS

INPUTS	VALUES
Discount Factor	4.57%
Terminal Growth	1.97%
PV Value CF	£843.79
Terminal Value	£6466.16
PV Tax Shield	£165.41
Enterprise Value	£7475.36
Net Debt	£990
Equity Value	£6485
Market Value	£5530
DIFFERENCE (absolute)	**£955**
DIFFERENCE (percentage)	**17.3% (Upside)**
RECOMMENDATION	**BUY**

Table 16

The intrinsic value based on our comprehensive discounted cash flow model is approximately £6485 million, as compared to the most recent market capitalization of £5530 million.

This is a difference of £990 million or 17.3%, which is a considerable difference to make an investment decision. The decent gap in the intrinsic value and the market capitalization makes us believe that it is the right time to invest on the basis of its fundamentals.

Therefore, we recommend a BUY call on the company (Table 16).

APPENDIX

DISCOUNTED CASH FLOW MODEL

Particulars	Actual								Forecast				
	FY 2011	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019 Est**	**FY 2020 Est**	**FY 2021 Est**	**FY 2022 Est**	**FY 2023 Est**
	01/30/2011	*01/29/2012*	*02/03/2013*	*02/02/2014*	*02/01/2015*	*01/31/2016*	*01/29/2017*	*02/04/2018*	*01/31/2019*	*01/31/2020*	*01/31/2021*	*01/31/2022*	*01/31/2023*
Revenue	16479	17663	18116	17680	16816	16122	16317	17262	17319	17659	18135	18611	19121
Growth		*7.18%*	*2.56%*	*-2.41%*	*-4.89%*	*-4.13%*	*1.21%*	*5.79%*	*0*	*0*	*0*	*0*	*0*
%Margin	7.0%	6.9%	6.7%	6.1%	4.5%	3.8%	3.7%	3.7%	0	0	0	0	0
Less: Cost of Goods & Service	15331	16446	16910	16606	16055	15505	15713	16629	16750	17081	17541	18003	18497
Gross Profit	1148	1217	1206	1074	761	617	604	633	568	579	593	608	623
Add: Other Operating Incom	80	86	80	81	78	72	76	78	87	88	91	93	96
Less: Operating Expenses	323	329	319	290	554	290	279	275	294	300	308	316	325
Operating Income (Loss)	905	974	967	865	285	399	401	436	360	367	376	385	394
EBIT	905	974	967	865	285	399	401	436	360	367	376	385	394
Coporate Tax	*19%*	*19%*	*19%*	*19%*	*19%*	*19%*	*19%*	*19%*	*19%*	*19%*	*18%*	*17%*	*17%*
NOPLAT	**732**	**787**	**782**	**699**	**230**	**323**	**324**	**352**	**291**	**296**	**310**	**319**	**327**
Depreciation & Amortization	319	340	368	393	387	384	399	418	409	420	428	439	451
Working Capital	-948	-981	-992	-1443	-1045	-1439	-1688	-1799	-1787	-1828	-1872	-1901	-1929
Change WC		-102	112	-33	-11	-451	398	-15	12	-41	-44	-29	-28
Capital Expenditures	494	724	846	835	385	266	374	429	559	607	490	595	599
FCF		**505**	**192**	**290**	**243**	**892**	**-49**	**356**	**130**	**151**	**292**	**192**	**206**
PV FCF									**124**	**138**	**256**	**161**	**165**

OPERATING INCOME/EXPENDITURE

In Millions of GBP except Per Share	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
+ Other Operating Income	80.0	86.0	80.0	81.0	78.0	72.0	76.0	78.0
- Operating Expenses	323.0	329.0	319.0	290.0	554.0	290.0	279.0	275.0
+ Selling, General & Admin	323.0	329.0	337.0	356.0	554.0	350.0	244.0	272.0
+ *General & Administrative*	*323.0*	*329.0*	*337.0*	*356.0*	*554.0*	*350.0*	*244.0*	*272.0*
+ Other Operating Expense	0.0	0.0	-18.0	-66.0	0.0	-60.0	35.0	3.0

In Millions of GBP except Per Share	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
+ Other Operating Income	0.49%	0.49%	0.44%	0.46%	0.46%	0.45%	0.47%	0.45%
- Operating Expenses	1.96%	1.86%	1.76%	1.64%	3.29%	1.80%	1.71%	1.59%
+ Selling, General & Admin	1.96%	1.86%	1.86%	2.01%	3.29%	2.17%	1.50%	1.58%
+ General & Administrative	1.96%	1.86%	1.86%	2.01%	3.29%	2.17%	1.50%	1.58%
+ Other Operating Expense	0.00%	0.00%	-0.10%	-0.37%	0.00%	-0.37%	0.21%	0.02%

WORKING CAPITAL

PARTICULARS	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
+ Cash, Cash Equivalents & STI	327	245	228	241	265	261	241	496	326	327
+ Accounts & Notes Receivables	102	145	197	191	168	180	178	132	137	149
+ Inventories	494	577	638	759	781	852	658	616	614	686
+ Other ST Assets	143	125	75	131	128	137	151	72	99	120
+ Prepaid Expenses	64	43	53	83	86	116	51	56	68	91
+ Derivative & Hedging Assets	0	71	4	2	5	1	6	12	22	15
+ Assets Held-for-Sale	—	—	—	—	—	0	84	0	0	4
+ Misc ST Assets	79	11	18	46	37	20	10	4	9	10
Total Current Assets	**1066**	**1092**	**1138**	**1322**	**1342**	**1430**	**1228**	**1316**	**1176**	**1282**
+ Payables & Accruals	2023	1939	2086	2188	2279	2272	2221	2529	2861	2996
+ Accounts Payable	1443	1350	1400	1409	1501	1436	1397	1690	2126	2270
+ Accrued Taxes	136	126	205	197	180	58	96	97	92	108
+ Other Payables & Accruals	433	463	481	582	598	778	728	742	643	618
+ ST Debt	1	198	0	109	52	553	11	209	0	72
+ Other ST Liabilities	0	15	0	6	3	48	41	17	3	13
+ Derivatives & Hedging	0	15	0	6	3	10	18	17	3	13
+ Misc ST Liabilities	0	0	0	0	0	38	23	0	0	0
Total Current Liabilities	**2024**	**2152**	**2086**	**2303**	**2334**	**2873**	**2273**	**2755**	**2864**	**3081**

PARTICULARS	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Current Assets	1,066	1,092	1,138	1,322	1,342	1,430	1,228	1,316	1,176	1,282
Total Current Liabilities	2,024	2,152	2,086	2,303	2,334	2,873	2,273	2,755	2,864	3,081
WORKING CAPITAL	**-958**	**-1,060**	**-948**	**-981**	**-992**	**-1,443**	**-1,045**	**-1,439**	**-1,688**	**-1,799**

PARTICULARS	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	10-Y	5-Y	3-Y
+ Cash, Cash Equivalents & STI	2.3%	1.6%	1.4%	1.4%	1.5%	1.5%	1.4%	3.1%	2.0%	1.9%	1.8%	2.0%	2.3%
+ Accounts & Notes Receivables	0.7%	0.9%	1.2%	1.1%	0.9%	1.0%	1.1%	0.8%	0.8%	0.9%	0.9%	0.9%	0.8%
+ Inventories	3.4%	3.7%	3.9%	4.3%	4.3%	4.8%	3.9%	3.8%	3.8%	4.0%	4.0%	4.1%	3.9%
+ Other ST Assets	1.0%	0.8%	0.5%	0.7%	0.7%	0.8%	0.9%	0.4%	0.6%	0.7%	0.7%	0.7%	0.6%
+ Prepaid Expenses	0.4%	0.3%	0.3%	0.5%	0.5%	0.7%	0.3%	0.3%	0.4%	0.5%	0.4%	0.5%	0.4%
+ Derivative & Hedging Assets	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
+ Assets Held-for-Sale	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
+ Misc ST Assets	0.5%	0.1%	0.1%	0.3%	0.2%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.0%
Total Current Assets	**7.3%**	**7.1%**	**6.9%**	**7.5%**	**7.4%**	**8.1%**	**7.3%**	**8.2%**	**7.2%**	**7.4%**	**7.4%**	**7.6%**	**7.6%**
+ Payables & Accruals	13.9%	12.6%	12.7%	12.4%	12.6%	12.9%	13.2%	15.7%	17.5%	17.4%	14.1%	15.3%	16.9%
+ Accounts Payable	9.9%	8.8%	8.5%	8.0%	8.3%	8.1%	8.3%	10.5%	13.0%	13.2%	9.7%	10.6%	12.2%
+ Accrued Taxes	0.9%	0.8%	1.2%	1.1%	1.0%	0.3%	0.6%	0.6%	0.6%	0.6%	0.8%	0.5%	0.6%
+ Other Payables & Accruals	3.0%	3.0%	2.9%	3.3%	3.3%	4.4%	4.3%	4.6%	3.9%	3.6%	3.6%	4.2%	4.0%
+ ST Debt	0.0%	1.3%	0.0%	0.6%	0.3%	3.1%	0.1%	1.3%	0.0%	0.4%	0.7%	1.0%	0.6%
+ Other ST Liabilities	0.0%	0.1%	0.0%	0.0%	0.0%	0.3%	0.2%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
+ Derivatives & Hedging	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
+ Misc ST Liabilities	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Total Current Liabilities	**13.9%**	**14.0%**	**12.7%**	**13.0%**	**12.9%**	**16.3%**	**13.5%**	**17.1%**	**17.6%**	**17.8%**	**14.9%**	**16.5%**	**17.5%**

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