Ratio analysis and supermarkets

Ian Marcousé demonstrates how to perform a ratio analysis

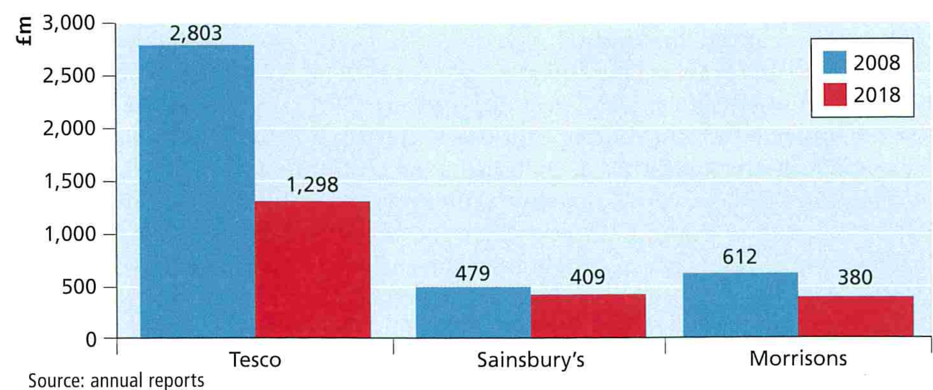
Ratio analysis is a key skill for second-year A-level business students, and will continue being important at university. This article analyses three of the UK's main supermarket plcs by asking three questions:

- Which is the most profitable?
- Which has the safest balance sheet?
- Which has the best prospects?

The analysis is horizontal: comparing Tesco, Sainsbury's and Morrisons with each other in their latest financial year, 2017/18. It is also vertical: comparing their performance today with 10 years ago in 2007/08 (just before the 2008–09 recession). To simplify things, the 2007/08 financial year will be called 2008 and 2017/18 will be called 2018.

As a quick starter to this piece, it may be interesting to note the dramatic falls in profits made by each one of these companies. This is partly due to the burst of extra competition from the German discounters Aldi and Lidl. It is also because sales have become split between online and offline — this adds costs without adding sales volume. At a glance you can see from Figure 1 the huge hit taken by Tesco in recent years.

Back in 2008 Tesco was still flying high, with profit margins that were the envy of every other grocer in Europe.



Source: annual reports

Figure 1 Pre-tax profit at three top UK grocery plcs

Table 1 Operating profit margins for UK supermarkets

	2007	2008	2017	2018
Morrisons	3.40%	4.70%	2.87%	2.65%
Sainsbury's	3.03%	2.97%	2.45%	1.82%
Tesco	6.21%	5.90%	1.82%	3.20%

Companies such as Aldi, Lidl and the French giant Carrefour claimed in 2008 that margins of 2% were satisfactory in grocery. Tesco enjoyed margins of 6%. Something had to give.

Most profitable?

There are two ratios to consider — profit margins and return on capital. UK supermarkets hide their gross profit margins by lumping lots of labour costs into the calculation, so it's impossible to get a clear insight into the real difference between selling prices and the cost of the goods sold. So the best profit margin to analyse is the operating margin, which takes into account all operating costs, including head office costs. Table 1 shows these data for all three companies, looking at the last 2 years compared with 10 years ago.

The data show that in 2007 Tesco made £6.21 of profit per £100 of customer sales. Despite a big recovery since 2017, Tesco's 2018 margins were little more than half their 2007 level. If Tesco had managed in 2018 to achieve its 2007 operating margins, it would have made an extra £1.7 billion in profit.

Return on capital

The single most important measure of profitability is not margins, but return on capital (ROC or ROCE — same thing). This is a difficult ratio to calculate, and it's also difficult to interpret. The formula is:

$$\frac{\text{Operating profit}}{\text{Capital employed}} \times 100$$

Capital employed is all the long-term finance of the business, i.e. share capital plus reserves plus non-current liabilities.

Table 2 Capital section of Morrisons' balance sheet

	2018 (£m)	2017 (£m)
Non-current liabilities	(2,041)	(2,319)
Share capital	434	401
Reserves	4,111	3,662
Total equity	4,545	4,064

Table 2 shows the bottom of Morrisons' balance sheet in 2018.

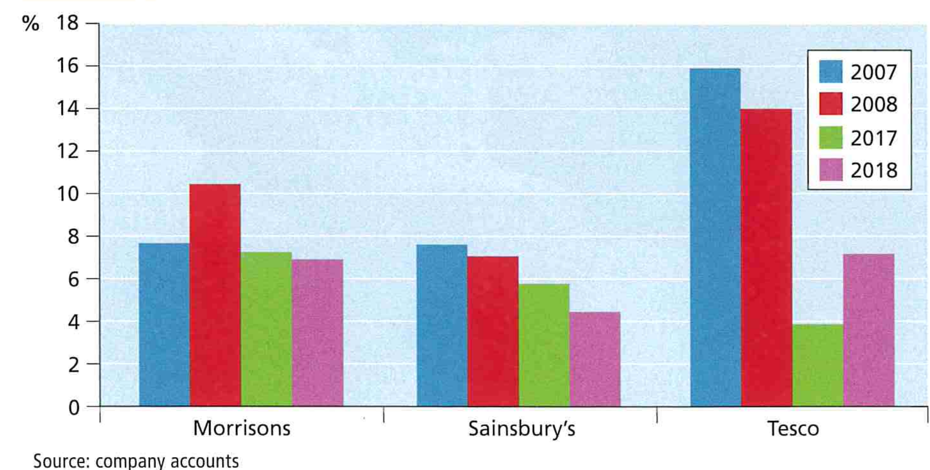
To calculate capital employed, ignore the bracket around the non-current liabilities. These are real liabilities (usually long-term bank loans) so the bracket is misleading. Morrisons' 2018 capital employed figure is £434m + £4,111m + £2,041m = £6,586m. You can calculate the 2017 capital employed figure yourself.

Without going through the working of each calculation, the actual ROC figures for the three companies are shown in Table 3 and illustrated in Figure 2. These give a clear picture of the decline in overall profitability, and the particular struggle of Sainsbury's plc. In 2007 its ROC matched that of Morrisons. By 2018 its steady slide had placed it significantly below Morrisons. Of the three companies, only Tesco had the reassurance of a break in the downward trend, with 2018 seeing a doubling of 2017's awful ROC figure.

In answer to the original question: which is the most profitable? Tesco and Morrisons are close enough in 2018 to make it too close to call. The only certainty is that Sainsbury's is third.

Table 3 ROC for UK supermarkets

	2007	2008	2017	2018
Morrisons	7.67%	10.58%	7.33%	6.95%
Sainsbury's	7.59%	7.06%	5.73%	4.43%
Tesco	15.90%	14.02%	3.85%	7.17%



Source: company accounts

Figure 2 ROC at UK grocery plcs

Safest balance sheet?

Financial health can be divided into two:

- **short-term liquidity**, i.e. the ability to pay upcoming bills over the next 12 months. The current ratio (current assets ÷ current liabilities) is a good way to measure this. It is often said that accountants like to see a current ratio of around 1.5, meaning a surplus of short-term assets over short-term liabilities
- **gearing**, which measures the extent to which the long-term finances of the business are dependent on debt, i.e. borrowed money. Here the rule of thumb is that gearing should be below 50%, above that figure and the financial risks become ever-greater

Table 4 shows that all three supermarket chains have liquidity ratio data that is far from accountants' recommendations. Sainsbury's has consistently been the most liquid of the three, but even it has approximately half the recommended level for the current ratio. Tesco seems to have worked to improve its liquidity, but Morrisons' is consistently weak. In fact Morrisons' newish financial director has highlighted the need to boost its financial strength, including by boosting its current ratio.

Unfortunately this is not an easy thing to do at a time when competitive pressures are high. One of the easiest ways to boost liquidity is to hold down investment spending, thereby allowing operating

profits to build up as cash within the current assets section of the balance sheet. But although all three supermarket plcs have cut their investment spending, Morrisons is desperate to upgrade its stores to make them more attractive to customers. Further cuts to investment spending would hurt the company's long-term prospects.

Long-term health

What of the long-term health of these businesses, as measured by the gearing ratio? As shown in Table 5, Sainsbury's has kept a remarkably stable gearing level, with the figure for 2018 little different from 2007. By contrast, Tesco has been on a huge journey, with its 2017 gearing position being enough to worry about. In fact its success in cutting gearing in 2017 was largely due to a halving of its pension obligations to former staff — a tough call in which the interests of Tesco pensioners are suffering for the sake of current staff and shareholders.

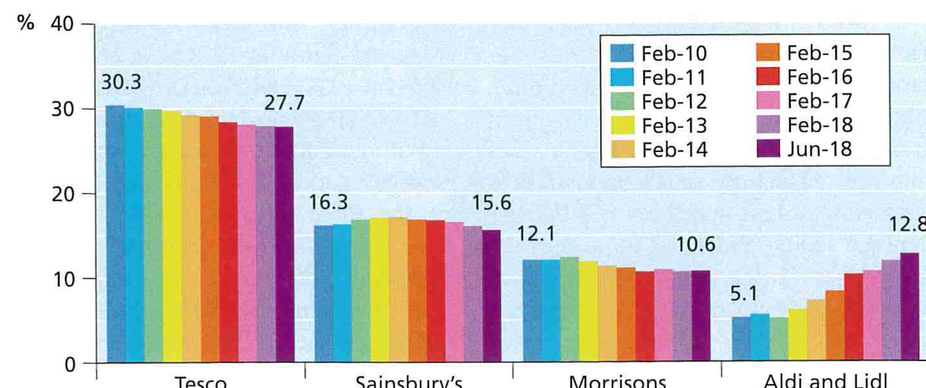
When drawing conclusions on the financial health of these companies, it is clear that there is a winner. Sainsbury's has

Table 4 Current ratio for UK supermarket plcs

	2007	2008	2017	2018
Morrisons	0.41	0.49	0.41	0.42
Sainsbury's	0.71	0.66	0.74	0.76
Tesco	0.51	0.61	0.78	0.71

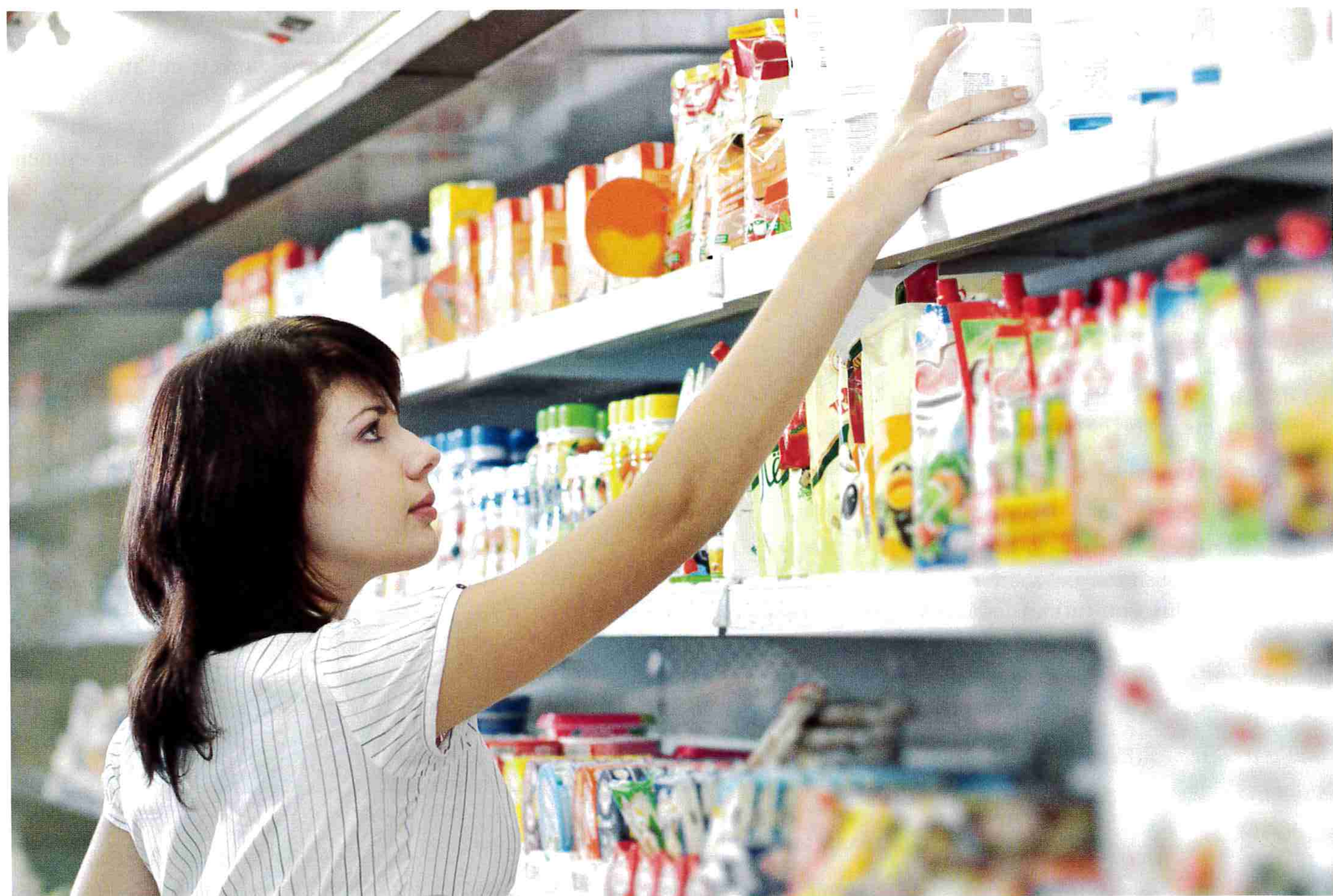
Table 5 Gearing ratio for UK supermarket plcs

	2007	2008	2017	2018
Morrisons	28.81%	24.30%	36.34%	30.99%
Sainsbury's	36.56%	34.29%	38.71%	36.65%
Tesco	36.76%	40.19%	75.75%	59.16%



Source: Kantar Worldpanel

Figure 3 UK grocery market share 2010–18



Sainsbury's has managed to keep prices down while still winning customer service awards

the best liquidity position and a delightfully stable gearing level. Gearing of 35–40% is exactly what people would expect of a modern plc. Of the other two, Morrisons wins on gearing but loses on liquidity, while Tesco does the opposite. Neither is as stable as Sainsbury's. Having said that, Sainsbury's bid for Asda is likely to change that position — takeovers usually lead to a notable increase in gearing levels (see Business Review, Vol. 25, No. 1, pp. 8–10 and 22–24).

Best prospects?

According to the *Grocer* magazine, Tesco has pushed through price increases more effectively than competitors, helping to boost margins but possibly at the later cost of a customer backlash. Whereas Sainsbury's has held prices down and simultaneously won the magazine's 'secret shopper' award for good customer service week after week. Were it not for its probable takeover of Asda, Sainsbury's could be identified as the grocer with the strongest financial position and best prospects.

With the possibility that Sainsbury's will be dragged down by the pressure to integrate two different sets of systems, perhaps Morrisons will prove the best bet for the near-term future. Gearing is low, profitability is remarkably high for a relatively small business and only liquidity is a potential problem. But as Morrisons has coped for years with a weak liquidity position, it seems fair to assume this will continue. Despite the possible creation of a duopoly monster in the form of Asda–Sainsbury's and Tesco, Morrisons seems the best placed for the future.

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