W4: Page

The required book reading for this module is chapter 11.

A few of us live in parts of the world where the book still won't arrive until the end of next week. So I'll provide a final summary of the required reading below. Whether or not you read it, please be sure to scroll down to the bottom of this page for the case assignment for this module.

Thank you.

Having learned to extract key numbers from financial statements, we can now calculate *performance metrics*. These will make clear whether or not a business has been *historically good*.

Return on capital employed, or ROCE, shows how much money a business *made* relative to the amount of capital it must *commit*. It is expressed as a percentage. This percentage is calculated by dividing *operating income* by *capital employed*.

Free cash flow return on capital employed, or FCFROCE, may be useful where *accrual accounting* clouds the essence of a business in a way that *cash accounting* does not. It is calculated by dividing *free cash flow* by *capital employed.*

Sometimes a company has an irregular year. A spike in demand could boost earnings or a recession could plunge cash flow, for instance. It could be misleading to judge a company based on one of those odd years. At the same time, it would be foolish to pretend that it didn't happen. What we really want is to analyze *normalized* results. One way to do this is to consider several years together. If the business hasn't fundamentally changed over the last three years, we could calculate ROCE by adding up the operating earnings of all three years and dividing that number by the sum of each years' capital employed. That would yield ROCE for a three-year period. FCFROCE can be safely handled in the same way.

Growth in operating income per fully diluted share is easy to calculate. Divide operating income by fully diluted shares for the first year. Then do the same for the second. Next, subtract the first from the second and divide the result by the first. A percentage will result.

Growth in free cash flow per fully diluted share is computed similarly. Divide free cash flow by the number of fully diluted shares for the first year, then do the same for the second. Then, subtract the first from the second and divide the result by the first.

Growth in book value per fully diluted share is computed similarly as well. Divide book value by the

number of fully diluted shares for the first year, then do the same for the second. Then, subtract the first from the second and divide the result by the first.

What does growth in book value per fully diluted share *mean*? Well, it shows the increase in worth over time from a strict accounting standpoint. But it has limited utility as a stand-alone metric. This is in part because it fails to capture dividends. Dividends don't trickle down to book value. Instead, they rob from book value on a one-to-one basis. So any meaningful consideration of this metric would have to be done in the context of any dividends paid.

Growth in tangible book value per fully diluted share is calculated by dividing tangible book value by the number of fully diluted shares for the first year, and by then doing the same for the second. Then subtract the first from the second and divide the result by the first. This metric has merit but is of limited use by itself because, again, it doesn't capture dividends.

Like ROCE and FCFROCE, the growth performance metrics can be misleading if calculated for a year that happens to be irregular. To normalize the figures, we again try to look at a multiple-year period. This will let us calculate an *average* growth rate. But this involves a very different tactic than it does with ROCE and FCFROCE. Specifically, it requires a *geometric mean*, also known as the *compound annual growth rate (CAGR)*. Spreadsheets have built-in tools for this. Search your spreadsheet program for the function called GEOMEAN.

Liabilities-to-equity ratio is a straightforward calculation from the balance sheet: total liabilities divided by book value. It's meaning is nuanced.

Debt *amplifies* results. If things go well for a highly-leveraged company, they go really well. If they go poorly, they go quite poorly. While opinions vary, value investors will generally favor low debt-to-equity ratios over high ones.

Remember that performance metrics are *historical;* they measure how things *went*. For example, if we calculate a growth rate of 10%, that means that something *grew* at 10%, not necessarily that it's *growing* at 10%.

Axfood AB

Please review the **2016 Annual Report of Axfood AB (http://investor.axfood.se/files/press/axfood/201702217375-1.pdf)** .

In the discussion section that follows, I would be interested in your answer to the following questions:

- What does Axfood do?
- For the most recent fiscal year, what was Axfood's' return on capital employed, free cash flow return on capital employed, growth in operating income per fully diluted share, growth in free cash flow per fully diluted share, growth in book value per fully diluted share, growth in tangible book value per fully diluted share, and liabilities to equity ratio?

Thank you