TEACHING THE INTERACTION OF FINANCIAL STATEMENTS

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Financial statements are complicated. Students often have trouble seeing the forest for the trees. And instructors tend to focus on the trees. Students do need to know the trees, of course, but it is also important that students come out of a first-year accounting course understanding the forest, that is, the big picture. Such a viewpoint will be useful to them, whether they are business or accounting majors, in their future courses and careers.

Part of understanding the big picture is knowing the relationship of parts of the financial statements to each other. Too often we teach by focusing on one statement at a time or not showing the interaction of transactions among the statements. The focus is on: "what is the debit?" and "What is the credit?" Further, when it comes to analyzing and actually studying the financial statements, time is shortened or runs out.

Our solution to these issues in first-year accounting is to fall back on twenty years of research we have conducted with two colleagues into the financial operating performance of high performance companies. High performance companies are defined as those companies that exhibit outstanding growth and value creation over a period of at least 10 years. The research has examined more than 25,000 companies form more than 40 countries over the period since 1989. [1]

In our research we looked at many operating ratios we found in the literature to see which were most closely associated with growth and value creation. Amazingly, we found that over and over six numbers making up four key ratios explaining the operating success of companies. Further, these six key numbers were major components of the three most important financials: the balance sheet, the income statement, and the statement of cash flows.

On the income statement, the components were:

- Revenues and
- Income (Loss)

On the statement of cash flows the single most important component was:

- Cash flows for operating activities.

On the balance sheet, the components were:

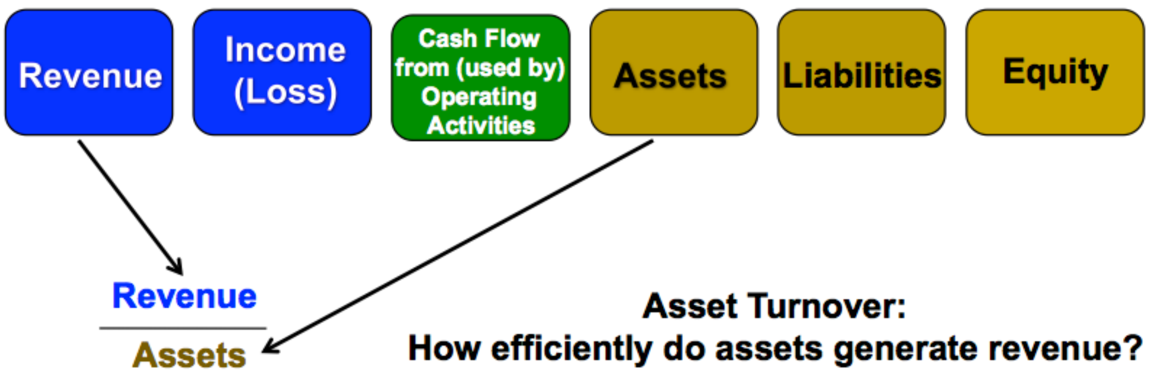
- Assets
- Liabilities, and
- Equity.

[1] This research, which involves more than ten published articles, is summarized in "Needles, B. E.,, Mark Frigo, Marian Powers, and Anton Shigaev, "The Operating Performance of High Performance Companies: Strategic Direction for Management," Studies in Managerial and Financial Accounting, (Marc Epstein, ed.), (Emerald Group Publishing Ltd.), 28, 2014.

Each of the four key ratios uses as the numerator a component of one statement as the denominator a component of that statement or another statement. Thus, each ratio shows the relation ship of one statement to another. By introducing these ratios early ion the class when financial statements are introduced, it is possible to use them throughout the course as a foundation when various entries are discussed.

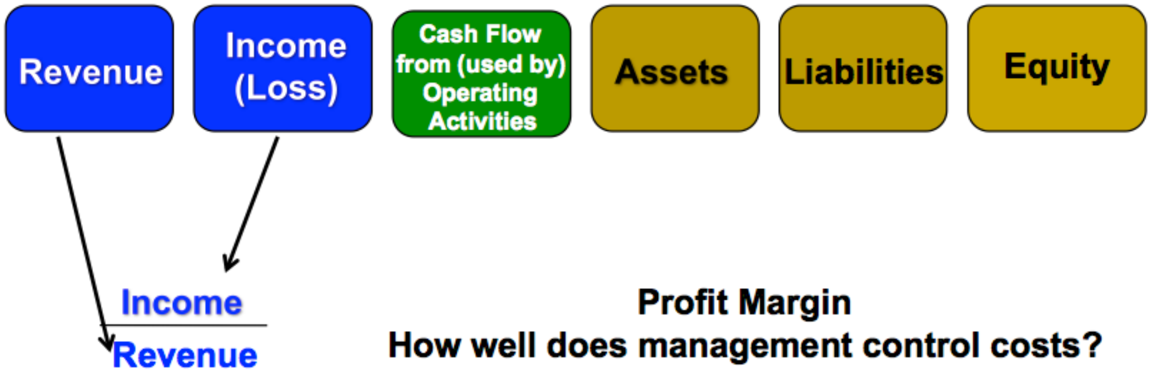
Asset Turnover

The Asset Turnover (Revenue Divided by Assets) addresses the question "How efficiently do assets generate revenue?" Our research shows that it is important for companies to grow revenues faster than assets. One reason so many acquisitions are not successful is that the companies overpay for the amount of revenues that they are getting through the purchased assets. Now, when teaching a transaction, say, a sale on account, it is possible to speak about the effect of the transaction on the asset turnover.



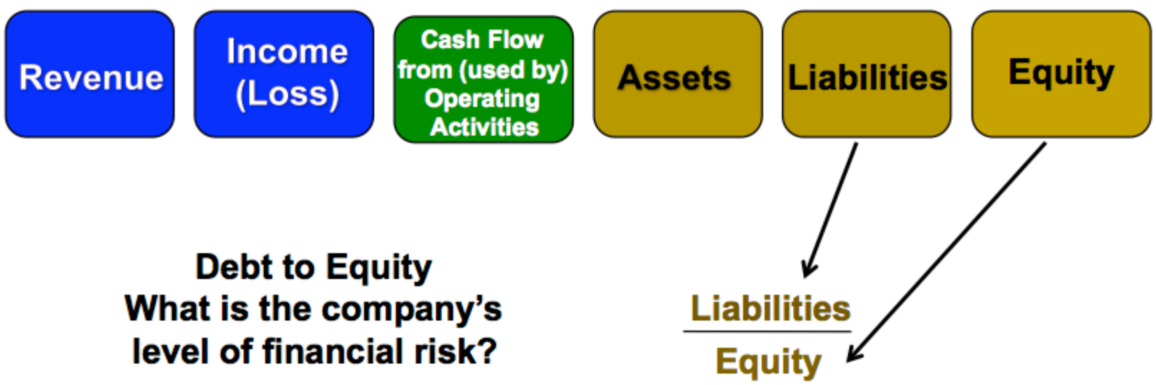
Profit Margin

The Profit Margin (Income or Loss Divided by Revenue) addresses the question "How well does the company control costs?" Our research found that it is important to emphasize the relationship of bottom-line net income or loss and total revenues. It is this profitability over the long term that determines the ultimate success of a business. This discussion provides the opportunity for the instructor to discuss the components of the income statement including cost of goods sold, operating expenses, income taxes, and non-operating items.



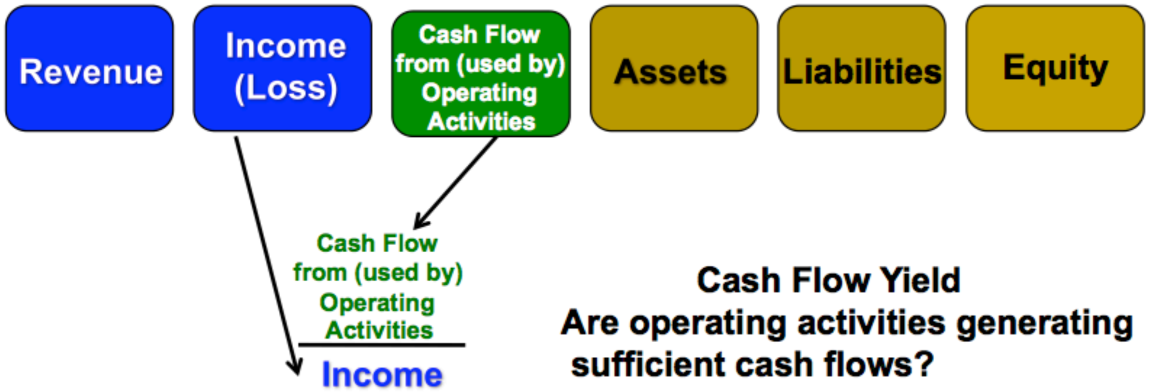
Debt to Equity

The Debt to Equity (Total Liabilities Divided by Total Assets) addresses the question "What is the company's level of financial risk?" Our research found that companies with a lower level of financial risk are better able to withstand market downtowns such as the financial crisis in 2009. By learning this ratio early in the course, students can understand perhaps the importance of selling goods on credit versus selling them for cash or of financing the purchase of long-term assets or of raising funds by issuing stock or bonds.



Cash Flow Yield

A ratio that may be unfamiliar to you is the Cash Flow Yield (Cash Flow from or used by Operating Activities Divided by Income). This ratio addresses the question "Are operating activities generating sufficient cash flows?) Every company should generate at least one dollar of cash flow from operating activities for each dollar of net income because non-cash expenses such as depreciation and amortization do not use cash. Our research has shown that high performance companies have a very steady cash flow yield between 1.2 and 2.5. A ratio below 1.0 means the company is not generating sufficient cash from its operations. A high ratio usually means the company has a very low income indicating insufficient profitability. It is, of course, important to mention the two other components of the statement of cash flows: investing and financing activities, but the cash flow yield shows the direct relationship between the income statement and the statement of cash flows.



Conclusion

These four ratios involving six key figures should be introduced early in the beginning accounting course concurrently with the introduction of financial statements. Them throughout the course, as various topics and transactions are covered, the students can be reminded of their importance to understanding the business and its financial statements. This approach is especially valuable to the non-accounting majors who will find these relationships useful in their other business courses.