



Module 3

The Language and Tools of Financial Analysis

Limitations 1: Historical Cost and Market Value (The Market is always right....)

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The problem with Book Value

Accountants record asset value at the
acquisition (historical) cost,
then apply an asset depreciation scheme,
and finally subtract accumulated
depreciation from the acquisition cost

Isn't that the market value?



Kellogg's Book Value of assets

The company's property assets are recorded at cost and depreciated over their estimated useful lives using straight-line methods – where permitted for tax reporting.

Goodwill is not amortized, but tested at least annually for impairment of value and whenever changes in circumstances indicate the asset may be impaired...

Kellogg's 2014 Annual Report

The problem with Book Value

We already know that book value is not particularly meaningful for some balance sheet items

Particularly when there is a readily available market value

So why is the market value of equity often very different from its book value?



The Market Value



Market to Book Ratio

aka Price to Book ratio:

$$\frac{MV}{BV} = \frac{P}{B} = \frac{\text{Market Capitalization}}{BV \text{ of Equity}}$$

$$\frac{P}{B} (\text{Kellogg's 2014}) = \frac{23,478}{2,851} = 8.2$$

Investors seem to be willing to pay a significant premium....

Who's wrong?



Where do we find market value?

- share market (equity)
- bond market (long-term liabilities)
- money market (short-term liabilities)
- foreign exchange market (accounts receivable)
- commodity market (accounts payable)

but non-current assets – like equipment and plant?

- periodic revaluation (mark to market)
But is that the same?

How bad is book value anyway?

When we computed Kellogg's DE ratio:

$$\text{Debt} - \text{Equity Ratio}(\text{Kellogg's 2014, BV}) = \frac{12,302}{2,851} = 4.31$$

$$\text{Debt} - \text{Equity Ratio}(\text{Kellogg's 2014, MV}) = \frac{12,874}{23,478} = 0.55$$

So what should the analyst do about it?



What do firms actually do?

Market value (or **Fair Value**) accounting is used when reliable market value estimates are available at low cost and when they convey information about operating performance.

So that rules out plant, equipment, inventory, etc.

Fair value is unlikely to become the primary valuation method for illiquid non-financial assets.

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