ROE, RETURNS TO SHAREHOLDERS AND MARKET EFFICIENCY!

Back to Basics

BECOMING SIDE-TRACKED..

- While I was working on my last two data updates for 2025, I got sidetracked, as I am wont to do, by two events.
  - The first was the response that I received to my last data update, where I **looked at the profitability of businesses**, and specifically at how a comparison of accounting returns on equity (capital) to costs of equity (capital) can yield a measure of excess returns.
  - The second was a **comment that I made on a LinkedIn post** that had built on my implied equity premium approach to the Indian market but had run into a roadblock because of an assumption that, in an efficient market, the return on equity would equate to the cost of equity.
- I pointed to the flaw in the logic, but the comments thereafter suggested **such deep confusion about what returns on equity or capital measure**, and what comprises an efficient market, that I think it does make sense to go back to basics and see if some of the confusion can be cleared up.

THE LEAD IN..

Business A
Upfront investment of $60 million, generates $15 million a year in net income forever.

Balance Sheet

Assets	$60	Equity	$60

Income Statement

Net Income	$ 15

Return on Equity (ROE)
ROE = Net income/ BV of Equity
= $15/ $60 = 25%

Business B
Upfront investment of $60 million, generates $3 million a year in net income forever.

Balance Sheet

Assets	$60	Equity	$60

Income Statement

Net Income	$ 3

Return on Equity (ROE)
ROE = Net income/ BV of Equity
= $3/ $60 = 5%

AND THE ECONOMIC INTUITION…

- On business A, the story has to be **one of strong barriers to entry** that allow it to sustain its excess returns in perpetuity, and those could include anything from a superlative brand name to patent protection to exclusive access to a natural resource. In the absence of these competitive advantages, these excess returns would have faded very quickly over time.
- On business B, you have a challenge, since it does seem irrational that an entrepreneur would enter a bad business, and while that irrationality cannot be ruled out (perhaps the entrepreneur thinks that earning any profit makes for a good business), the **reality is that outside events can wreak havoc on the bet paid plans of businesses.** For instance, it is possible that the entrepreneur's initial expectations were that he or she would earn much more than 5%, but a competitor launching a much better product or a regulatory change could have changed those expectations.

THE MARKET LAUNCH..

	Company A	Company B
What the market perceives	**Company A** Expected to generate $15 million a year in perpetuity, wih a cost of equity of 10%.	**Company B** Expected to generate $3 million a year in perpetuity, wih a cost of equity of 10%.
Value in an efficient market	**Market Value** Value of equity = 15/.10 = $150	**Market Value** Value of equity = 3/.10 = $30
When compared to book equity...	**Price to Book** Price to Book = 150/60 = 2.50	**Price to Book** Price to Book = 30/60 = 0.50
And scaling earnings to market equity	**Earnings Yield** Earnings to Price = 15/150 = 10%	**Earnings Yield** Earnings to Price = 3/30 = 10%

AND THE IMPLICATIONS FOR PRICE TO BOOK...

- If markets are efficient, the price to book ratios will reflect the quality of these companies.
  - In this example, for instance, business A, with a market value of equity of $150 million and a book value of equity of $60 million, will trade at 2.50 times book value, whereas company B with a market value of equity of $30 million and a book value of equity of $60 million will trade at half of book value.
  - Both companies would be fairly valued, though the first trades at well above book value and the second at well below
- This is why a lazy variant of value investing, built almost entirely on buying stocks that trade at low price to book ratio,, will lead you to holding bad businesses, not undervalued ones.

AND EARNINGS YIELD..

- The working definition that some commenters used for return on equity was obtained by dividing the net income by the market value of equity.
- That is not return on equity, but an earnings to price ratio, i.e., the earnings yield, and in these examples, with no growth and perpetual (constant) net income, that earnings yield will be equal to the cost of equity in an efficient market.
- However, in a world with growth and reinvestment, the relationship between earnings yield and cost of equity will not yield a conclusion about market efficiency.

EXTENDING THE DISCUSSION
1. GOOD COMPANIES VS GOOD INVESTMENTS

Company A priced at	*Company B priced at*	*Investment choice*
$ 150 million	$50 million	**Both are fairly valued**, and investors will be indifferent (earning 10% on both)
<$150 million	>$50 million	Invest in **company A (undervalued)** and don't invest in **company B (overvalued)**
>$150 million	<$50 million	Buy **company B (undervalued)** and don't buy **company A (overvalued)**
>$150 million	>$50 million	**Buy neither**, since both are overvalued
<$150 million	<$50 million	**Buy both**, if you can. If you can buy only one, pick the one that is **more undervalued on a percentage basis.**

2. THE WEAKEST LINK: ROE AND ACCOUNTING INCONSISTENCIES

- To illustrate with our simple example, assume that half the money invested in business A is in R&D, which accountants expense, instead of capitalizing.
- That business will report a loss of $15 million (with the R&D expense of $30 million more than wiping out the profit of $15 million) in the first year on book capital of $30 million (the portion of the capital invested that is not R&D), but in the years following, it will report a return on equity of 50% (since net income will revert back to $15 million, and equity will stay at $30 million).
- Carrying this through to the real world, you should not be surprised to see **technology and pharmaceutical companies, the two biggest spenders on R&D**, report much higher accounting returns than they are actually earning on their investments..

ROE AND AGING ASSETS

- As assets age, two tensions appear that can throw off book value, the first being **inflation**, which if not adjusted for, will result in the book value being understated, and accounting returns overstated.
- The other is **accounting depreciation**, which often has little to do with economic depreciation (value lost from aging), and subject to gaming.
- Extrapolating, projects and companies with older assets will tend to have overstated accounting returns, as inflation and depreciation lay waste to book values. In fact, with an aging company, and adding in stock buybacks, the **book value of equity can become negative** (and is negative for about 10% of the companies in my company data sample).

ROE AND FAIR VALUE ACCOUNTING

- In my view, fair value accounting is pointless, and I can use my simple example to illustrate why.
- If you marked the assets of both company A and company B to market, you would end with book values of $150 million and $30 million for the two companies and returns on equity of 10% for both firms.
  - In short, if **fair value accounting does what it is supposed to do**, every firm in the market will earn a return on equity (capital) equal to the cost of equity (capital), rendering it useless as a metric for separating good and bad businesses.
  - If **fair value accounting fails** at what it is supposed to do, which is the more likely scenario, you will end up with book values of equity that measure neither original capital invested nor current market value, and returns on equity and capital that become noise.

GROWTH ENTERS THE EQUATION

- Introducing growth into the equation changes none of the conclusions that we have drawn so far, but it makes **reading both the return on equity and the earnings yield much messier.**
  - To see why, assume that company A in the example continues to have no growth, but company B expects to see compounded annual growth of 50% a year in its net income of $3 million for the next decade.
  - We can no longer consign company B to the bad business pile as easily, and the current earnings to price ratio for that company will no longer be equal to the cost of equity, even if markets are efficient.
- Incorporating growth into the analysis will also mean that net income is not equal to cash flow, since some or a large portion of that net income will have to get reinvested back to deliver the growth.
- In fact, this is the argument that I used in my second data update to explain why comparing the earnings yield to the treasury bond rate is unlikely to yield a complete assessment of whether stocks are under or over valued, since it ignores growth and reinvestment entirely.

EXITING/CHANGING BAD BUSINESSES

- This example also helps to bring home why it is so difficult for companies in bad businesses to fix their "badness" or exit their businesses.
- In the case of company B, for instance, telling the manager to find projects that earn more than 10% is advice that can be freely dished out, but how exactly do you invent good projects in a business that has turned bad?
- While exiting the business seems to be a better choice, that presupposes that you will get your capital ($60 million) back when you do, but in the real world, potential buyers will discount that value.
  - In fact, if you divest or sell the bad business for less than $30 million, you are actually worse off than staying in the business and continuing to generate $3 million a year in perpetuity, which has a $30 million value.

CONCLUSION

- Many of the comments on my seventh data update and on my explanation about why ROE and cost of equity don't have to be equal in an efficient market came from people with **degrees and certifications in finance**, and quite a few of the commenters had **"finance professional" listed in their profile**.
- Rather than take issue with them, I would argue that this misunderstanding of basics is a **damning indictment of how we teach these concepts and topics in the classroom**, and one reason that I wrote this post is **to remind myself** that I have to revisit the basics, before making ambitious leaps into corporate financial analysis and valuation.
- For those of you who are not finance professionals, but rely on them for advice, I hope this is a cautionary note on **taking these professionals (consultants, appraisers, bankers) at their word**. Some of them throw buzzwords and metrics around, with little understanding of what they mean and how they are related, and it is **caveat emptor**.