Twitter Thread by 10-K Diver

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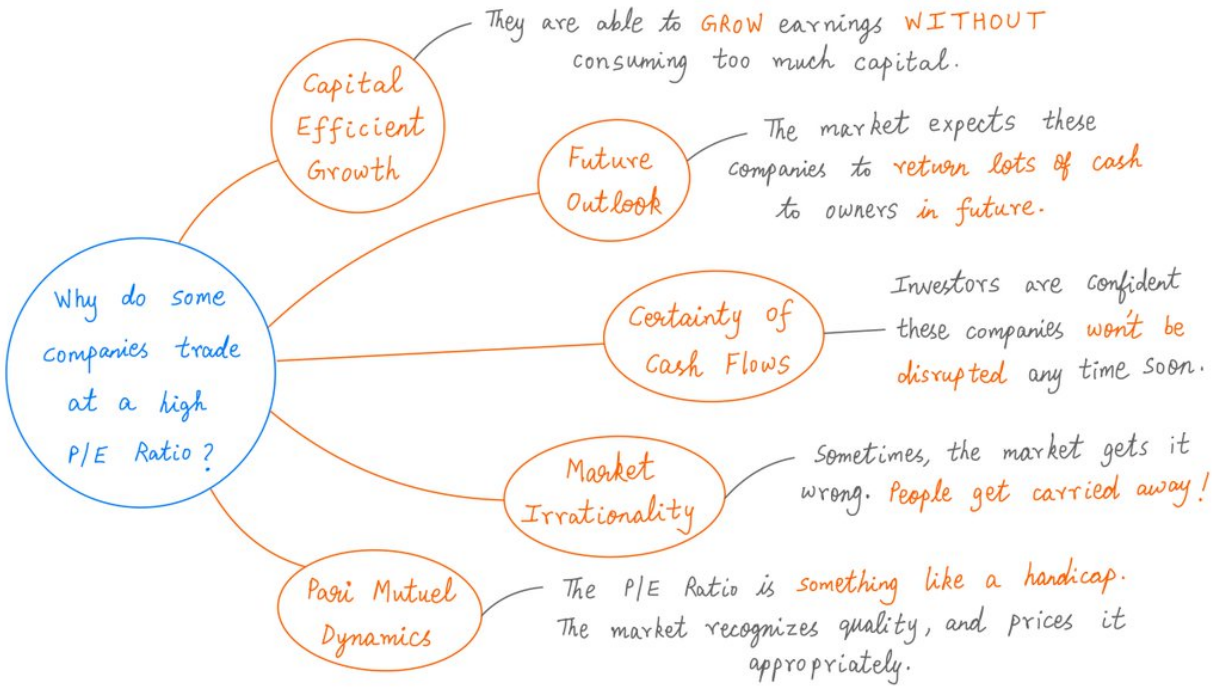
Get a cup of coffee.

In this thread, I'll walk you through the P/E Ratio.

Why do some companies trade at 5x earnings and others trade at 50x earnings?

When I first started investing, this was hard for me to understand.

So, let me break it down for you.



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Imagine we have 2 companies, A and B.

Let's say both companies will earn $1 per share next year.

And both companies will also GROW their earnings at the SAME rate: 10% per year. Every year. Forever.

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Suppose A trades at a (forward) P/E Ratio of 10. So, each share of A costs $10.

And B trades at a P/E Ratio of 15. So, each share of B costs $15.

Which is the better long term investment: A or B?

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If you had asked me this question 10 years ago, I would have said: hands down A!

After all, both A and B earn the same ($1/share). And they grow at the same rate (10%/year).

But A is CHEAPER than B (10 vs 15 P/E).

So, of course A is the better long term investment.

Right?

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The answer is: NOT necessarily.

B -- the MORE "expensive" looking stock -- could *still* end up being the better investment.

Why? Because it's not just about earnings, or how fast earnings will grow.

It's about how *capital efficient* this growth will be.

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In other words, how much capital do these businesses need to produce $1 of earnings? What Return On Equity (ROE) do these businesses deliver?

To see why this is the pertinent question, let's assume A earns a 20% ROE and B earns an 80% ROE.

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What this means is:

For every $1 of annual earnings that A produces, its owners need to put up $5 of capital -- ie, 20% ROE.

By contrast, B's owners only need to put up $1.25 for every $1 of annual earnings from B. That's because B earns an 80% ROE. And 80% of $1.25 = $1.

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This makes a BIG difference.

Why? Because, as these businesses GROW (at 10% per year), A will guzzle more capital than B -- since it earns a lower ROE.

And every dollar of capital thus guzzled is a dollar that can't be pocketed by owners.

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Let's work out the numbers.

We know A will earn $1/share next year. At a 20% ROE, that means A now has $5/share of equity capital in it.

Fast forward 1 year.

Having grown 10%, A is now set to earn $1.10/share. But that ALSO means $5.50/share of equity capital.

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So, how much cash can A's owners actually pocket next year?

Well, the business will earn $1/share.

But the business will ALSO eat up $0.50/share -- to grow equity capital from $5/share to $5.50/share.

That's the price we must pay to keep those earnings growing at 10%.

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The net effect is:

A's owners will ONLY get to pocket $0.50/share, even though the business will earn $1/share.

By contrast, B's owners will get to pocket $0.875/share. Because B needs much LESS capital to finance its 10% growth.

Calculations:

A vs B: How much cash do owners get to pocket in Year 1?

	A (20% ROE)	B (80% ROE)
Year 1 Earnings	$1/share	$1/share
Year 1 Capital	$5/share	$1.25/share
Year 2 Earnings	$1.10/share	$1.10/share
Year 2 Capital	$5.50/share	$1.375/share
Additional Capital needed to fund growth	$0.50/share	$0.125/share
Earnings available to be pocketed by owners	$0.50/share 50% of earnings	$0.875/share 87.5% of earnings

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And this will happen EVERY year.

Both A and B will report identical earnings in ALL future years.

But each year, A's owners will ONLY pocket 50% of A's earnings.

Whereas B's owners will pocket 87.5% of B's earnings.

All because B earns a higher ROE than A.

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Thus:

Owning a share of B will put 75% MORE cash ($0.875 vs $0.50) in our pocket each year -- compared to owning a share of A.

Therefore, a share of B should be *worth* 75% more than a share of A -- even though both companies have the SAME earnings and the SAME growth.

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So, if we're *rational* investors, we should be indifferent between paying 10x earnings for A and 17.5x earnings for B.

That is, if we think A deserves a P/E Ratio of 10, it's only rational to think B deserves a (75% higher) P/E Ratio of 17.5.

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Another way to see this:

Suppose we have $100K to invest.

We could sink that $100K into A at a P/E of 10 -- ie, $10/share. That will get us 10K shares of A.

And those 10K shares will pay us dividends: $5K ($0.50/share) in Year 1, plus 10% per year growth thereafter.

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Or we could sink our $100K into B at a P/E of 17.5 -- ie, $17.50/share.

We'll get only ~5714.29 shares of B. But each share will pay us $0.875 in dividends in Year 1.

That's the SAME $5K in dividends. With the SAME 10% growth forever.

So, B at 17.5x P/E = A at 10x P/E.

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And that's why B at a *15x* P/E (our original question) is BETTER than A at a 10x P/E.

Different companies *deserve* different P/E Ratios.

It's about how much CASH an owner can take out of the company over time.

Not earnings. Cash flows.

Not growth. Capital efficiency.

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That's why:

When a company demonstrates that it can grow earnings *without* consuming too much capital, "the market" often assigns it a higher P/E Ratio.

The market prizes "capital efficient growth" -- and rightly so!

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In addition to capital efficient growth, there are many other reasons a company may fetch a high P/E Ratio.

Let's run through some of them.

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In our example, we pretended that we could predict A's and B's earnings *forever* into the future.

But of course, for real businesses, we can do no such thing.

Market participants are mostly just trying to *guess* what the future holds for various companies.

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And P/E Ratios reflect those guesses.

If people believe that a company has a bright future, they may be willing to pay more (ie, a higher P/E Ratio) for its shares today.

And vice versa. If a company's future looks gloomy, its P/E Ratio tends to come down.

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The *certainty* of future cash flows also plays a role.

If we think a company is likely to survive (and pay dividends) for another 50 or 100 years, we may pay a bit more (ie, a higher P/E Ratio) for its shares -- compared to another company that may not survive that long.

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But sometimes, "the market" just gets it wrong.

After all, people do get caught up in manias and bubbles from time to time.

And when that happens, markets tend to become irrationally exuberant.

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I like to think there are 2 kinds of market participants:

Investors, who buy stocks at "rational" P/E Ratios based on estimates of future cash flows, and

Speculators, who buy stocks at possibly irrational P/E Ratios simply hoping to flip them to others for a quick profit.

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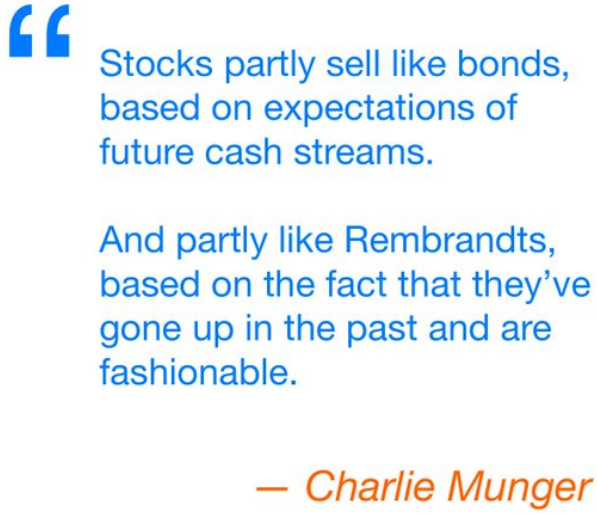
From time to time, speculators dominate the scene.

And when that happens, there's generally no telling how high a stock's P/E Ratio will go, or how long such "irrationality" may persist.

As Charlie Munger put it:



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Here's the last idea I have for you today:

Pari Mutuel Dynamics

This is the notion that P/E Ratios are like "handicaps".

As we saw above, "high quality" companies (eg, those that can grow earnings capital-efficiently) tend to trade at higher P/E Ratios.

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The upshot is:

It's NOT enough to simply identify "high quality" companies.

Because if we pay too steep a price (ie, too high a P/E Ratio) for this "high quality", we may *still* end up with sub-par returns.

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For instance, in our "A vs B" example above, we saw that A at a 10x P/E is equivalent to B at a 17.5x P/E.

B is undoubtedly the higher quality company.

But if our choice is between A at a 10x P/E and B at a 50x P/E, then A is unquestionably the better *investment*.

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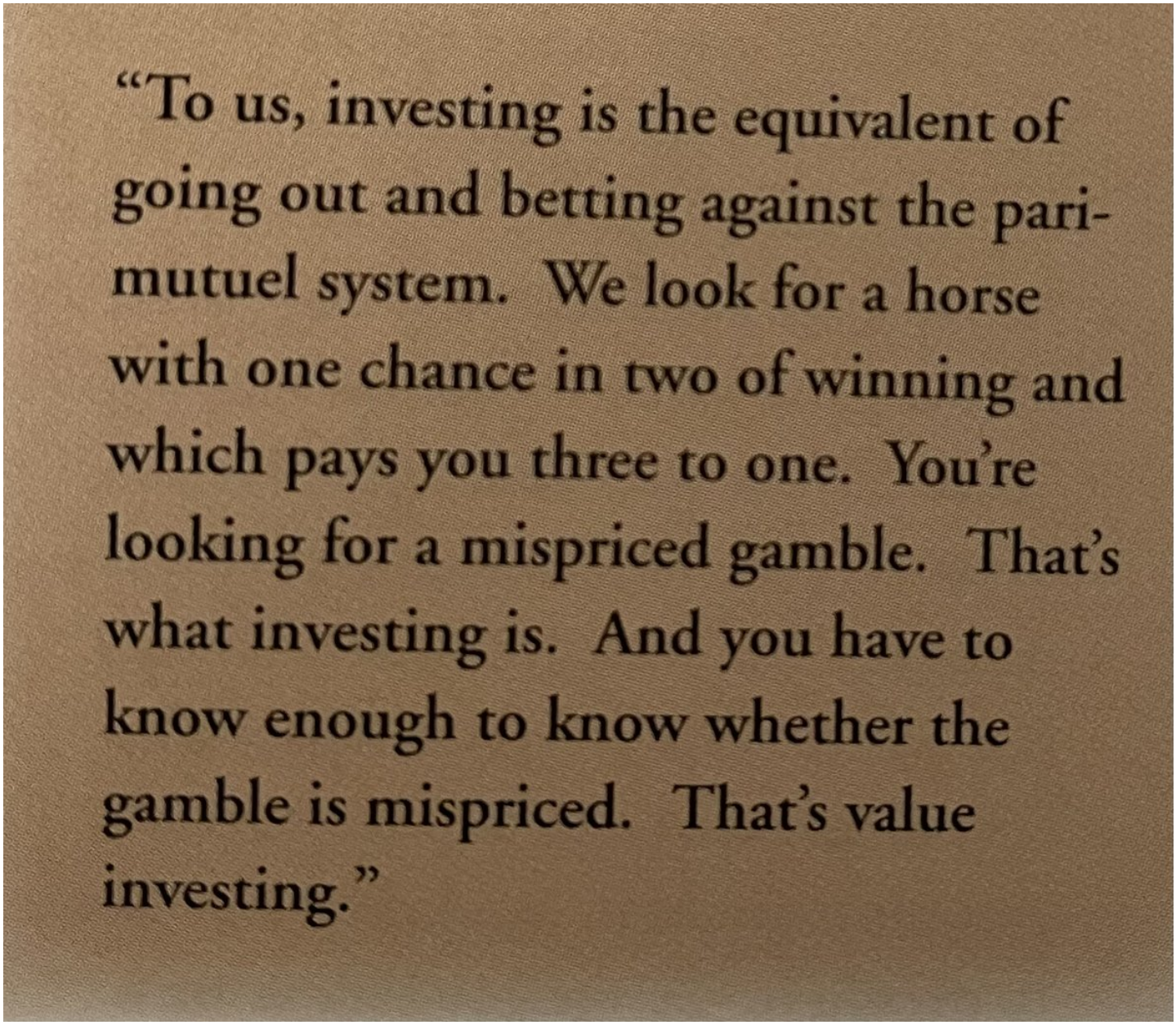
As skilled horse race bettors know:

Making money in horse racing is NOT about predicting which horse will win the race.

It's about identifying which horse's *odds* of victory are *most mis-priced* -- and then betting intelligently on such odds.

As Charlie Munger put it:



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To learn more about:

- Identifying high quality businesses,
- Buying them at good prices, and
- Using this to build long-term wealth,

please consider joining this course I'm teaching with Ali Ladha (@AliTheCFO):

https://t.co/V14vUfVper

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The P/E Ratio is one of the most commonly used valuation measures.

But a low P/E Ratio doesn't necessarily mean "cheap" and a high P/E Ratio doesn't necessarily mean "expensive".

I hope this thread helped you appreciate some of this nuance.

Have a great weekend!

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