Twitter Thread by Money Theory

Money Theory
@money_theory

1/

Bruce Greenwald EPV valuation:

Get a cup of coffee.

Today I will help you understand the Earnings power value framework and how you can implement it in your valuation analysis.

@contrarianEPS @10kdiver
@FI_InvestIndia @Dinesh_Sairam

2/

Before proceeding, let me tell u a thing. We make two assumptions when using this approach. Those are

1. Current profits are sustainable.

2. No growth (More about this later)

Let's get started.

3/

Imagine, you have 50 lakhs of cash. You invested 30 lakhs into bonds, gold, real estate, and crypto. You plan to invest the balance of 20 lakhs into a business.

4/

An owner of a food business in your town planning to sell his biz for 15 lakhs as he was about to retire. You thought to buy that biz.

Looking at the accounts, you have understood that the biz is making 2 lakhs profits yearly.

5/

As an investor, you demand a minimum of 10% yield from the biz.

Why? Simple. The risk-free govt bond yield is trading at 6%. Since you are taking some risks, you demand an additional 4% return.

6/

To give you a 10% yield, the max cash you can pay for biz is 20 lakhs (2lacs/10%), so you found that business is a bargain and made the deal.

Now, To write your calculation into a formula. It looks like this Value = Earnings/cost of capital.

7/

However, we don't receive full earnings as cash flows, so we rewrite the formula as Value = *Adjusted earnings*/cost of capital.

Whereas

Adjusted earnings = Distributable cash flows.

Cost of capital = Expected returns.

8/

To find out adjusted earnings, we start with EBIT (Earnings before Int & taxes) and account for one-time items, cyclical nature, etc.,

The basic premise is to find out the current earnings power of the firm.

Let's take the listed firm Bajaj auto and value it.

9/

1. Normalise EBIT:

The firm operates in a cyclical industry. To adjust for cycles, we use 5 years avg EBIT margin which is 23.54%. Also, we assume current revenues are sustainable.

The normalised EBIT comes at 7,042 crores (29,919 crores*23.54%)

10/

2. Adjust for one time items:

Exceptional items for the last 5 years:

2016: zero
2017: zero
2018: 32 crores expense
2019: 342 crores income
2020: zero.

Since the one-time item is income, we are ignoring it for conservative purposes.

11/

3. Adjust for growth expenses:

This is an interesting point. Though we assumed zero growth, that's not the reality.

For instance, an FMCG firm spends towards advertisement exp, Pharma firm on R&D, Auto firm on Sales & after-sales service to increase revenues.

12/

However, full exp dont materialize into growth. Some portion is needed just to maintain the current profits position. We assume 25% of expenses go towards growth.

So we add back 25% of FY 20 sales & after sales expenses and R&D to normalised EBIT.

13/

Do note that 25% is not some magical number. It is a conservative estimate. You can use any other number.

Another note is when you add too much growth exp, the normalised EBIT increases. In that case, maintaining the current profits itself becomes difficult.

14/

4. Adjust for Depreciation:

To maintain the current profits, the firm needs to incur maintenance Capex yearly. Since Dep is a good proxy for the same, we assume Dep = M Capex.

So, we make no adjustments here as dep is already deducted from EBIT.

15/

On the flip side, we can add dep, calculate M Capex, and reduce it from Normalised EBIT. Go through the pic for M Capex calculation.

Next, no firm can escape taxes. We take a 25% corporate tax rate and reduce the same to arrive at adj earnings.

> 'Companies generally report capital expenditures in their statement of cash flows. We assume that each year, a part of this outlay supports the business at its sales level for the prior year, and part is needed for whatever increase in sales it has achieved. Companies generally have a stable relationship between the level of sales and the amount of plant, property, and equipment (PPE), net of depreciation, that they report. We calculate the ratio of PPE to sales for each of the five prior years and find the average. We use this to indicate the dollars of PPE it takes to support each dollar of sales. We then multiply this ratio by the growth (or decrease) in sales dollars the company has achieved in the current year. The result of that calculation is growth capex. We then subtract it from total capex to arrive at maintenance capex.

16/

After accounting for all the items, we got adjusted earnings of 5,615 cr which is close to reported net profits of 5,212 cr for FY 20.

Now it's time to arrive at EPV. At 10% cost of capital, the value comes at 56,157 cr.

17/

And then there is one last step away. Since we have not included interest exp in the valuation, we reduce debt, and also the firm has some cash balance. We add this.

18/

The equity value of Bajaj Auto Ltd comes at 56,347 crores. Dividing this with shares outstanding of 28.9 crores, we get a fair value of Rs 1,949 per share.

19/

Regarding growth, here are 3 points:

1. Growth is the margin of safety.

2. Growth is speculation until it comes.

3. Growth creates value only if the return on capital > cost of capital.

20/

The point is we can pay the full fair value of Rs 1,949 per share for the biz. We bought growth for free and it acts as the margin of safety for our investment provided the firm grows profitably.

21/

Also, the fair value comes at Rs 2,435 per share when we reduce the cost of capital to 8%.

In this case, Growth should help us to make those additional 2% returns we wanted before + provide some margin of safety.

22/

There are no hard rules here. You may change the cost of capital, growth exp, depreciation from firm to firm.

Regarding the cost of capital, this is a decent article by @Dinesh_Sairam
https://t.co/y9vpFSzGY2

23/

The good thing about EPV is you don't have to predict next month's sales, next year's cash flows, etc., You find out current earnings power based on available data. That's it.

This is a summary excel sheet of everything we discussed in the thread.

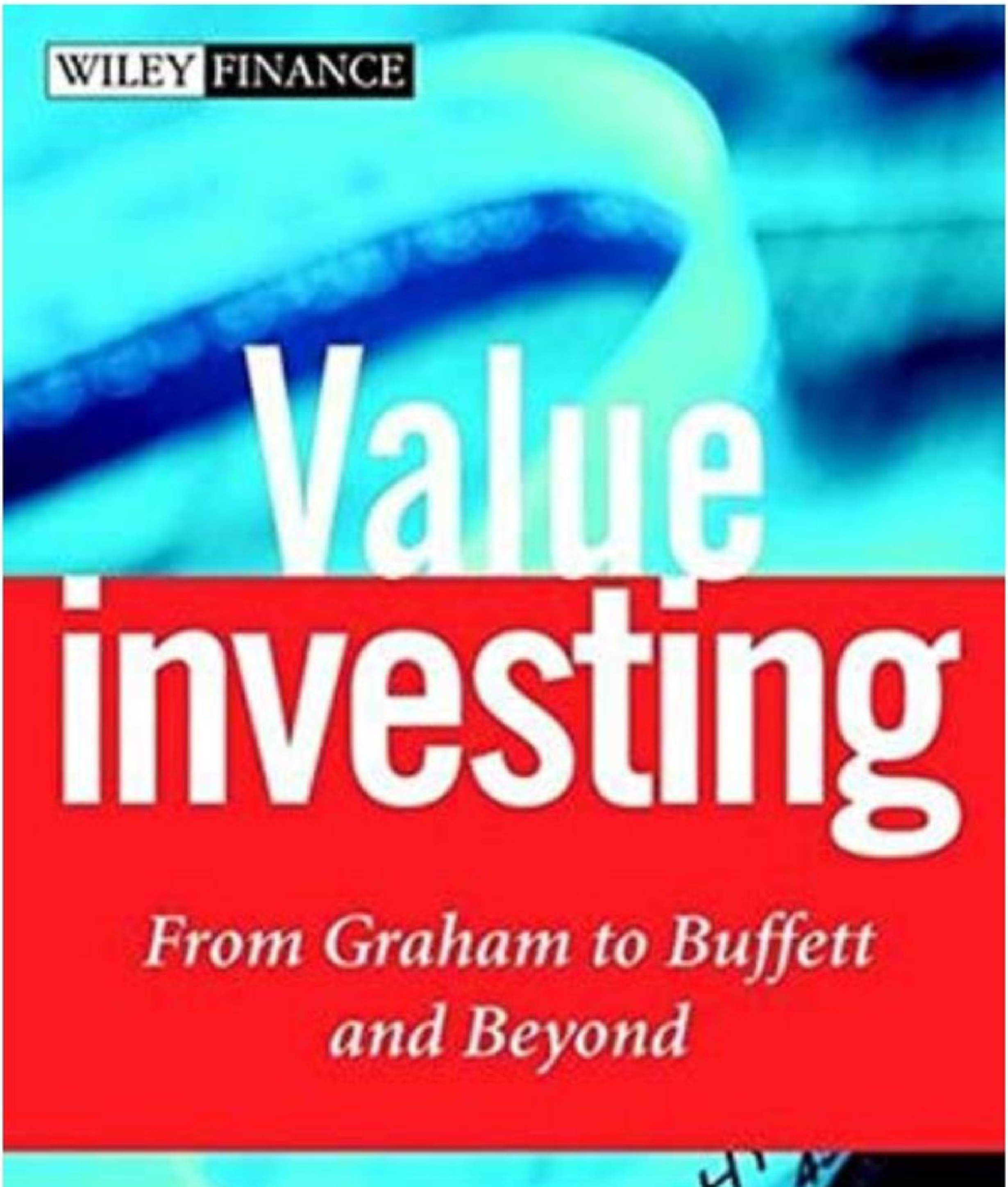
Bajaj Auto Ltd EPV framework

	Particulars	**2,016**	**2,017**	**2,018**	**2,019**	**2,020**	**Smoothed**	**Remarks**
1	Revenue	22,574.00	21,755.00	25,210.00	30,358.00	29,919.00	29,919.00	Current revenues are sustainable
2	EBIT margin %	25.16%	25.69%	23.54%	22.93%	22.38%	23.54%	5 years Average EBIT margin
3=1X2	EBIT	5,680.00	5,589.00	5,934.00	6,960.00	6,695.00	7,042.42	
	Exceptional items	-	-	-32.00	342.00	-	-	Ignored
4	Sales & after sales expenses	1,048.00	867.00	1,053.00	1,208.00	1,306.00	326.50	25% of expenses incurred towards growth
5	R & D	329.00	367.00	372.00	456.00	475.00	118.75	25% of expenses incurred towards growth
6	Tax rate	28.00%	27.00%	29.00%	29.00%	22.00%	25.00%	Corporate tax rate is 25%
	Depreciation	307.00	307.00	315.00	266.00	246.00	-	Depreciation = Maintenance capex
7=(3+4+5)	Adjusted earnings before taxes						7,487.67	
8=(7-6)	Adjusted earnings						5,615.75	
9	Cost of capital						10.00%	
10=(8/9)	Firm value						56,157.51	
11	Debt						126.00	
12	Cash & cash equivalents						316.00	
13=(10-11+12)	Equity value						56,347.51	
	Shares outstanding						28.90	
	Fair value per share						**1,949.74**	

24/

I recommend reading the book "Value Investing by Bruce Greenwald* where he explained this method.

Also, a big reason to write about EPV is it is less popular compared to DCF even though it provides a logical framework.


WILEY FINANCE
Value investing
From Graham to Buffett and Beyond
BRUCE C. N. GREENWALD
JUDD KAHN PAUL D. SONKIN
MICHAEL VAN BIEMA

25/

If you have come this far, I congratulate you for reading the full thread. Your curiosity is appreciable.

That's it, folks. Your likes and retweets are valuable. Have a great day.

The End.