



Presents

EP 1: Measuring The Asset Quality

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Meaning Of Good Investment

- Identifying good/great business and purchase it at good discount/reasonable price. To understand let's us consider a simple scenario.

Quality		Price	Good Buy/Investment ??
	Bad	50 Rs/Kg	
	Excellent	200 Rs/Kg	
	Good	100 Rs/Kg	

Image Source: Wikipedia

Meaning Of Good Investment

- Good buy is the most critical point in overall investment. Basically, we need to look for **mismatch**.

Quality		Price	Good Buy/Investment ??
	Bad	50 Rs/Kg	No, Bad quality is expected to be cheap.
	Excellent	200 Rs/Kg	No, Excellent quality is expected to be expensive.
	Good	100 Rs/Kg	Yes, Good and sometime excellent quality can be bought at bargain/discount. Like big billion days sale!!!

Image Source: Wikipedia

Determine the quality of an asset/business

- All rates of return gets compared with the rate of return that is paid on the government bond/interest rate. Typically these would be same as most of the bank FD rates being offered for long term tenure.
- Return on capital(ROC) is the way to determine the quality of business. For simplicity we would assume it to be same as ROE of the company.
- P/E(Price To Earning) & P/B(Price To Book) tool helps us to determine the reasonable price of a business to pay while buying.

Legend's Quotes

- Over the long term, it's hard for a stock to earn a much better return than the business which underlies it earns. If the business earns 6% on capital over forty years and you hold it for that forty years, you're not going to make much different than 6% return – even if you originally buy it at a huge discount. Conversely, if a business earns 18% on capital over 20 or 30 years, even if you pay an expensive looking price, you'll end up with one hell of a result.

Charlie Munger, VC, Berkshire Hathaway

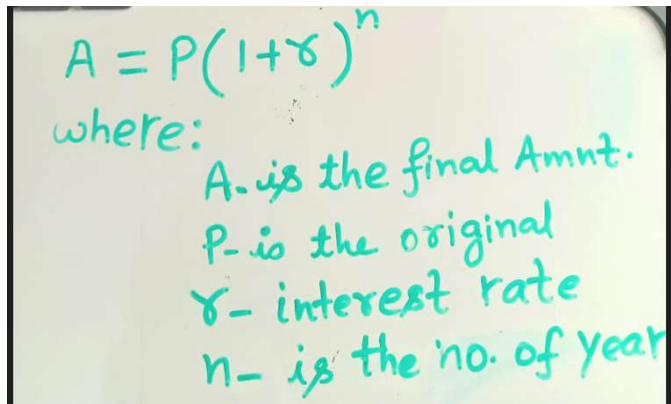
- It's far better to buy a wonderful company at a fair price than a fair company at a wonderful price. When buying companies or common stocks, we look for first-class businesses accompanied by first-class managements.

Warren Buffet, Chairman, Berkshire Hathaway

Basics Math Revision

- Compound interest is the eighth wonder of the world. He who understands it, earns it; he who doesn't, pays it.

Albert Einstein, One Of The World's Greatest Scientist



$A = P(1+r)^n$
where:
A- is the final Amnt.
P- is the original
r- interest rate
n- is the no. of year

Example1: $P = 1000 \text{ Rs}$, $r = 8 \%$, $n = 9 \text{ Year}$
 $A = 2000 \text{ Rs}$

Example2: $P = 1000 \text{ Rs}$, $r = 9 \%$, $n = 8 \text{ Year}$
 $A = 2000 \text{ Rs}$

Example2: $P = 1000 \text{ Rs}$, $r = 26 \%$, $n = 3 \text{ Year}$
 $A = 2000 \text{ Rs}$

Basics Math Revision

- Compound Annual growth rate(CAGR) is the way to calculate the constant rate of return over the period of time period. This is very useful to compare the returns of stocks or with a fixed rates investment like FD or government bond.
- Essentially it is 'r' of the compound interest formula.

$$\begin{aligned}F.V &= P.V (1+r)^n \\ \frac{F.V}{P.V} &= \frac{P.V}{P.V} (1+r)^n \\ (1+r)^n &= \frac{F.V}{P.V} \\ (1+r)^{n/n} &= \left(\frac{F.V}{P.V}\right)^{1/n} \\ 1+r &= \left(\frac{F.V}{P.V}\right)^{1/n} \\ CAGR &= \left(\frac{F.V}{P.V}\right)^{1/n} - 1\end{aligned}$$

Example1: F.V = 2000 Rs, P.V = 1000 Rs, n = 9 Year
CAGR = 8 %

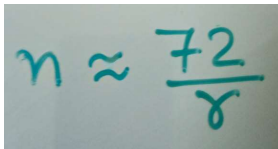
Example2: F.V = 2000 Rs, P.V = 1000 Rs, n = 8 Year
CAGR = 9 %

Example3: F.V = 2000 Rs, P.V = 1000 Rs, n = 3 Year
CAGR = 26 %

Example4: F.V = 2000 Rs, P.V = 1000 Rs, n = 6 Year
CAGR = 13 %

Basics Math Revision

- “Rule of 72” methods for estimating how much time it would take the double the original invested amount. It is also derived from the same compound interest formula.


$$n \approx \frac{72}{r}$$

- This formula should be used for quick mental calculation. We can interchange the ‘n’ and ‘r’ in the above formula.

Example1: If $r = 6\%$, $n = 12$ years to double the money

Example2: If $r = 12\%$, $n = 6$ years to double the money

- Now let us do quick calculation and compare it with the actual compound interest formula.
 - Suppose we invest 1 Lakh in an asset which can give 18 % return average return. What should be the final value after 16 year?.
- Using “Rule of 72, money would be doubled in the 4 years. This means money can be doubled 4 times in 16 years.

With Rule of 72: $P = 1$ Lakh, $r = 18\%$, $n = 16$ Year, $A = 2^{4*1}$ Lakh = 16 Lakh

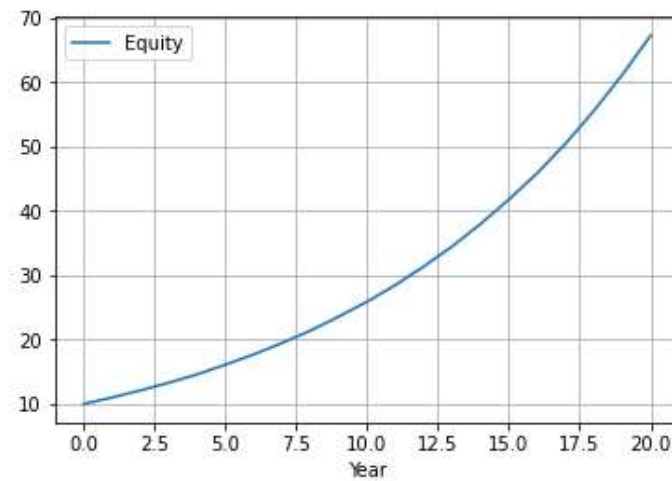
Compound Interest Formula : $P = 1$ Lakh, $r = 18\%$, $n = 16$ Year, $A = 14.2$ Lakh

Decode The Quality Of An Asset

- To understand let's us understand it with simple scenario. We would consider a scenario where we start/invest hypothetical company which consists of chain of grocery shop. Few assumption to keep it simple.
 - No loan/debt is taken.
 - Medical shop earns keeps on earning 10 % on invested capital(ROE) for next 30-40 years.
 - Medical shop reinvest his entire profit to grow its business.
 - No taxation is involved.

Measure The Quality(ROE)

	Equity	Profit	ROE
Year			
0	10.0	1.0	10
1	11.0	1.1	10
2	12.1	1.2	10
3	13.3	1.3	10
4	14.6	1.5	10
5	16.1	1.6	10
6	17.7	1.8	10
7	19.5	1.9	10
8	21.4	2.1	10
> 9	23.6	2.4	10
10	25.9	2.6	10
11	28.5	2.9	10
12	31.4	3.1	10
13	34.5	3.5	10
14	38.0	3.8	10
15	41.8	4.2	10
16	45.9	4.6	10
17	50.5	5.1	10
18	55.6	5.6	10
19	61.2	6.1	10
20	67.3	6.7	10



- Starting Invested Amount is: 10 Lakh ,After 20 year Its Value would be: 67.3 Lakh. Now let's us calculate the CAGR. What do you expect?
- CAGR = 10 % Expected!!!!

Impact Of Price(Discount) on investment return

Year	Equity	Profit	ROE
0	10.0	1.0	10
1	11.0	1.1	10
2	12.1	1.2	10
3	13.3	1.3	10
4	14.6	1.5	10
5	16.1	1.6	10
6	17.7	1.8	10
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13	34.5	3.5	10
14	38.0	3.8	10
15	41.8	4.2	10
16	45.9	4.6	10
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19	61.2	6.1	10
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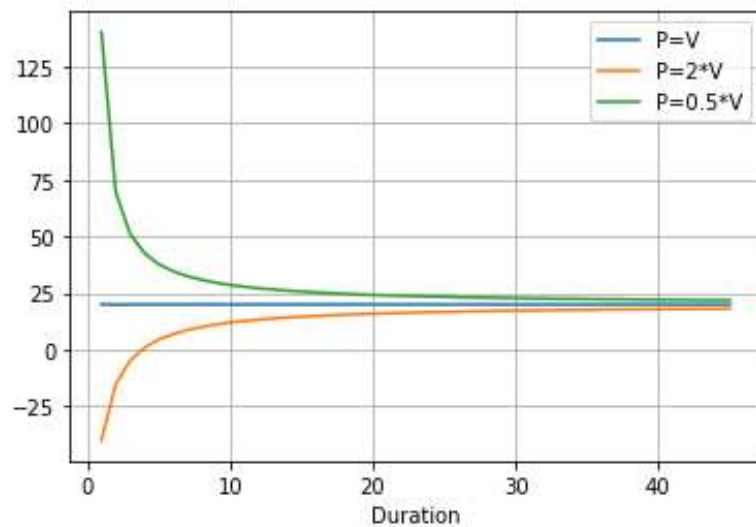
- Now lets us consider that somebody can buy this company in the year 9 from the original shop owner at 50 % discount of shop worth. This means he pays $23.6/2$ Lakh = 11.8 Lakh
- After 20 year Its Value would be: 67.3 Lakh. Now let's us calculate the CAGR return on this investment for this 11-year period.
- So, In this case, CAGR = 17 % Impressive!!!!.
- However, we see that there is nothing changes in the original business. This is the power of buying great/good companies at the bargain price.

Impact Of Price(Expensive) on investment return

Year	Equity	Profit	ROE
0	10.0	1.0	10
1	11.0	1.1	10
2	12.1	1.2	10
3	13.3	1.3	10
4	14.6	1.5	10
5	16.1	1.6	10
6	17.7	1.8	10
7	19.5	1.9	10
8	21.4	2.1	10
> 9	23.6	2.4	10
10	25.9	2.6	10
11	28.5	2.9	10
12	31.4	3.1	10
13	34.5	3.5	10
14	38.0	3.8	10
15	41.8	4.2	10
16	45.9	4.6	10
17	50.5	5.1	10
18	55.6	5.6	10
19	61.2	6.1	10
20	67.3	6.7	10

- Somebody can buy this company in the year 9 from the original shop owner in 200 % (double) of shop worth. This means he pays the 23.6x2 Lakh = 47.2 Lakh
- After 20 year Its Value would be: 67.3 Lakh. Now let's us calculate the CAGR return on this investment for this 11-year period.
- So, In this case, CAGR = 3 % Surprise!!!
- So, In this case, we see this investor investment return is so lower. However, we see that there is nothing changes in the original business. This is impact of buying companies at expensive forward-looking price.

Impact of time and initial price on return



- In long term, an investor return would approximate the business return.
- Impact of initial buying price would diminish over the period. So, focus on the good business.
- If we can get good business at discount, then its great. Good business can even become better over the years and in that case, we can expect even better return.

Summary

- Discussed what is the essence of the good investment.
- ROE is way to measure the quality of any business.
- Impact of buying price on overall return.
- In long term(10 or more year), investor return would approximate with ROE of the business.
- In next part, we would discuss about how to determine the good price of the business while considering the buying.

Thank You 😊