

Charlie Munger's Talk

Today, I am going to use some of the key ideas from one of Charlie Munger's most interesting talks titled "[Practical Thought on Practical Thought](#)".

In this wonderful talk which was delivered in July 1996, Mr. Munger takes up the case involving the turning of \$2 million into \$2 trillion in 150 years. (By the way that translates into a compounded annual growth rate of 9.64%).

While there are many lessons to be learnt by carefully studying the transcript of this talk, for the purposes of this lecture I will focus on a few key ideas illustrated by Mr. Munger which will help you think about making money from businesses with enduring competitive advantages i.e. moats.

Here are three key extracts from Mr. Munger's talk that we will focus on. The key sentences have been emphasized by me.

Excerpt # 1

"It is 1884 in Atlanta. You are brought, along with twenty others like you, before a rich and eccentric Atlanta citizen named Glotz. Both you and Glotz share two characteristics: First, you routinely use in problem solving the five helpful notions, and, second, you know all the elementary ideas in all the basic college courses, as taught in 1996. However, all discoverers and all examples demonstrating these elementary ideas come from dates before 1884. Neither you nor Glotz knows anything about anything that has happened after 1884."

"Glotz offers to invest two million 1884 dollars, yet take only half the equity, for a Glotz Charitable Foundation, in a new corporation organized to go into the non- alcoholic beverage business and remain I that business only, forever. Glotz wants to use a name that has somehow charmed him: Coca-Cola."

*"The other half of the new corporation's equity will go to the man who most plausibly demonstrates that **his business plan will cause Glotz's foundation to be worth a trillion dollars 150 years later, in the money of that later time, 2034, despite paying out a large part of its earnings each year as a dividend. This will make the whole new corporation worth \$2 trillion, even after paying out many billions of dollars in dividends.**"*

Excerpt # 2

"We will next use numerical fluency to ascertain what our target implies. We can guess reasonably that by 2034 there will be about eight billion beverage consumers in the world. On average, each of these consumers will be much more prosperous in real terms than the average consumer of 1884. Each consumer is composed mostly of water and must ingest about sixty-four ounces of water per day. This is eight, eight-ounce servings. Thus, if our new beverage, and other imitative beverages in our new market, can flavor and otherwise improve only twenty-five percent of ingested water worldwide, and we can occupy half of the new world market, we can sell 2.92 trillion eight-ounce servings in 2034. And if we can then net four cents per serving, we will earn \$117 billion. This will be enough, if our business is still growing at a good rate, to make it easily worth \$2 trillion."

*"A big question, of course, is whether four cents per serving is a reasonable profit target for 2034. And the answer is yes if we can create a beverage with strong universal appeal. One hundred fifty years is a long time. **The dollar, like the Roman drachma, will almost surely suffer monetary depreciation. Concurrently, real purchasing power of the average beverage consumer in the world will go way up.** His proclivity to inexpensively improve his experience while ingesting water will go up considerably faster. Meanwhile, as technology improves, the cost of our simple product, in units of constant purchasing power, will go down. All four factors will work together in favor of our four- cents-per-serving profit target. Worldwide beverage-purchasing power dollars will probably multiply by a factor of at least forty over 150 years. Thinking in reverse, this makes our profit per-serving target, under 1884 conditions, a mere one fortieth of our cents or one tenth of a cent per serving. This is an easy-to-exceed*

target as we start out if our new product has universal appeal.”

Excerpt # 3

“How consistent is my solution with the history of the real Coca-Cola Company? Well, as late as 1896, twelve years after the fictional Glotz was to start vigorously with two million 1884 dollars, the real Coca-Cola Company had a net worth under \$150,000 and earnings of about zero. And thereafter, the real Coca-Cola Company did lose half its trademark and did grant perpetual bottling franchises at fixed syrup prices. And some of the bottlers were not very effective and couldn’t easily be changed. And the real Coca-Cola Company, with this system, did lose much pricing control that would have improved results, had it been retained. Yet, **even so, the real Coca-Cola Company followed so much of the plan given to Glotz that it is now worth about \$125 billion and will have to increase its value at only eight percent per year until 2034 to reach a value of \$2 trillion. And it can hit an annual physical volume target of 2.92 trillion serving if servings grow until 2034 at only six percent per year, a result consistent with much past experience and leaving plenty of plain-water ingestion for Coca-Cola to replace after 2034.** So, I would guess that the fictional Glotz, starting earlier and stronger and avoiding the worst errors, would have easily hit his \$2 trillion target. And he would have done it well before 2034.”

Those emphasized sentences are terribly important because they reveal how Mr. Munger thinks about long-term investing. There are *very* few things he focuses on. Let’s call them *future value drivers*. These are:

1. Business volume growth over the long term;
2. Profit per unit of business volume over the long term; and
3. An “exit multiple” of earnings based on the belief that even after the substantial growth projected by him, there will still be more growth ahead.

Equally important, I think, are things he *ignores* in those paragraphs. For example, he does not talk about *intrinsic value today*, which is a fuzzy concept which will unnecessarily get him caught up in a debate about (1) what discount rate to use to value estimated future earnings; and (2) what perpetual growth rate to use in his valuation model. He deftly sidesteps those distractions *even though he implicitly uses those concepts* when he thinks about potential future value.

Notice, also that he makes no reference to *Return on Capital* even though students of his methods know that he is one of the proponents of the utility of that ratio. Nor does he talk about *Balance Sheet Quality*. That’s because those important ideas have already been considered in his *business quality checklist*.

Any student of Charlie Munger would know that he has no interest in businesses delivering low or mediocre returns on capital or those having poor quality balance sheets. In this talk, he is basically telling you how to think about *potential future value* once you’ve found businesses you’d like to own.

Once you have a good idea about potential future value, you can compare it with current market value to estimate *expected return*. Notice also that Mr. Munger ignores *dividend* return. He thinks about potential gain in market value over the very long term and thinks hard about the *future value drivers* that will cause that gain to occur.

Now, let’s apply that kind of thinking to Relaxo Footwear.

Applying Charlie Munger's Framework to Relaxo Footwear

Let's look at key *future value drivers* of Relaxo Footwear. First, potential revenue growth driven by two components: (1) business volume growth; and (2) growth in average realization driven by changes in product mix, inflation and pricing power of the business. The table below shows how the company has performed on those parameters in the past.

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	CAGR - 5 Yr	CAGR 10 Yr
Revenues	INR million	1,515	2,016	2,167	2,018	2,369	3,073	4,100	5,578	6,922	8,657	10,109	27%	21%
No of Pairs	In Million	47	61	59	50	52	64	68	84	87	92	100	9%	8%
Price	INR	32	33	37	40	46	48	60	66	80	94	101	16%	12%

Let me remind you about a couple of things about the *structure* of the market in which Relaxo Footwear operates without going into too much of the details as these were discussed in [The Relaxo Lecture](#). Relaxo operates in a highly fragmented market where it (and other pan-India footwear manufacturers) have been gaining market share from hundreds of small manufacturers who do not enjoy economies of scale. This isn't a short-term trend in my view. Second, the market itself is growing and that isn't a short-term trend either. Both these points taken together mean that: (1) Relaxo can continue to grow *faster* than the industry for at least a decade; and (2) Even after a decade of growth, there will still be plenty of growth ahead. (At present, Relaxo represents just 4% of the India's footwear market size). *That*, in turn means that we can value Relaxo stock ten years from now at a reasonable multiple of projected earnings that will reflect further growth.

The table above shows that average annual business volume growth over the last 10 years was 8% and over the last 5 years it was 9%. Based on this, and on the structure of the market and my assessment of the management's capability to scale up its operations, I assume that the company's business volume will grow at 8% a year for a decade. This means that in 2023, the company will be selling about 216 million pairs of footwear.

Now, let's take a look at past growth in average realization. In 2003, the company sold an average pair at just Rs 32 a pair. In 2013, that number shot up to Rs 101 per pair implying a growth rate of 12% a year over the last decade. Over the last five years, average realization increased by 16% a year. This happened because of inflation *and* the presence of a moat which enables the company to increase prices without suffering from a volume decline. Incidentally, the pre-tax ROE (based on reported earnings which understate owner earnings) was 14% in 2003, 22% in 2007 and 35% in 2013.

This is *not* an isolated incident. The same pattern plays out in many moat businesses that I have discussed in this class in the past wherein consumers who experience a rise in their nominal disposable incomes because of inflation are willing to buy better quality products and services at higher price points. Moreover, businesses which offer such desirable products and services, because they have moats, are able to change the mix of their offerings and increase prices in a such a way that average realization they derive tends to rise much more than the rate of inflation. *This*, in turn results in a rise in return on equity delivered by such businesses.

By the way, that's is the reason why I think Warren Buffett's wonderful essay titled ["How Inflation Swindles the Equity Investor"](#) should be re-written as "How Inflation Enriches the Moat Investor."

Maybe one day, I'll do that...

Let's return to the potential growth in average realization. Based on past trend as displayed in the table above, and also based on the fact that there are role models like Havaianas (discussed by me in [The Relaxo Lecture](#)) which now sells its *cheapest* flip flops for \$18 a pair, I project that Relaxo will be able to change product mix and on top of that inflation will enable it to achieve increase in average realization of 10% a year over the next decade. This implies that average realization per pair will rise from Rs 101 in 2013 to Rs 262 (about \$4 a pair) in 2023.

If both of my assumptions about growth in business volume and average realization materialize, then in 2023 Relaxo will deliver revenues of about Rs 57 billion as opposed to Rs 10 billion in 2013.

The Most Popular Software for Writing Fiction

While you read and think about these figures which I extracted from a very rudimentary Excel model, keep in mind the observation made by someone recently who told me that the most popular software for writing fiction is not Word. It's Excel. :-)

In other words, you have to be very cautious about the dangers of using Excel models. Nevertheless, you have to make an attempt to figure out what the business would be earning a decade from now, and you can't do that intelligently without first thinking about the potential revenues a decade from now. That's the reason why it's imperative that you do this only with those businesses whose future is *easier* to predict. You simply can't apply this kind of thinking to smart phone manufacturers but I think you can apply it to dominant businesses experiencing very little change in their business models, and which meet basic human needs and aspirations in a market far from being fully saturated.

In addition to limiting the use of predicting growth to a handful of businesses, I also suggest another principle of conservatism: Never predict future growth in excess of historical growth rates— both long term and short term. Notice, that in my two predictions about business volume growth *and* average realization growth, I adhered to that principle.

It's The Owner Earnings That Count

Now let's move to profit per pair. The table below shows how the Relaxo's profit on a per pair of footwear sold has changed over the years.

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	CAGR - 5 Yr	CAGR 10 Yr
Reported PAT	INR million	35	54	37	33	61	105	142	377	268	399	448	34%	29%
Adjustment for Ad expense	INR million	-	-	-	-	-	-	-	137	97	46	186		
Adjusted PAT	INR million	35	54	37	33	61	105	142	514	365	445	634		
Adjusted PAT/Pair	INR	0.7	0.9	0.6	0.6	1.2	1.6	2.1	6.1	4.2	4.8	6.3	31%	24%
PAT/Pair		0.7	0.9	0.6	0.6	1.2	1.6	2.1	4.5	3.1	4.3	4.5		

In [The Relaxo Lecture](#), Ravi and I had highlighted the fact that as Relaxo spends large sums of money every year on advertisement and publicity which have an enduring benefit (evidenced by increased market share). Under such circumstances, it would be proper to amortize this spend over a

three year period. After making *that* adjustment, the above table reveals that in 2013, Relaxo delivered owner earnings of about Rs 6.30 per pair of footwear on a post-tax basis. In 2007, that number was Rs 1.20 per pair and in 2003, it was just Rs 0.70 per pair. The average annual growth rate in owner earnings per pair has been 24% over the last 10 years and 31% over the last 5 years. This happened as economies of scale enabled to the company to increased its PAT margin (unadjusted for spending on advertisement and publicity) to rise from just 2.3% in 2003 to 2.6% in 2007 and to 4.4% in 2013. That's a compounded annual growth rate in PAT margin by 7% a year in over the last 10 years and 5% a year over the last 5 years.

Based on this information, I predict that in 2023, the company's PAT margin (before adjustment for spending on advertisement and publicity) would continue to gradually inch up by 5% a year and then will stop at 7.2% in 2023. That is, unadjusted PAT margin of 4.4% in 2013 would become 7.2% in 2023.

If this prediction turned out to be true, then Relaxo would earn adjusted PAT per pair of about Rs 21 on average per-pair realization of Rs 262 in 2023. Given that the company is expected to sell 216 million pairs in 2023, we now have estimates of both revenues and earnings for that year:

Projected revenues for 2023: Rs 57 billion

Projected post-tax owner earnings for 2023: Rs 4.6 billion

Now let's come to the final future value driver which is an exit multiple. Notice that in the Coca-Cola example used by Mr. Munger projected net earnings of \$117 billion in 2034. He then says:

"This will be enough, if our business is still growing at a good rate, to make it easily worth \$2 trillion."

In other words, Mr. Munger values Coca-Cola in 2034 at 17 times earnings— a multiple, which all of you'll agree would imply growth beyond 2034.

Using the same underlying principle, I would apply an post-tax owner earnings multiple of 15x to Relaxo in 2023. The current multiple, by the way, is 24x, so I am projecting a significant *contraction* of the multiple over the next 10 years. (Limiting myself to a 20x exit multiple ten years from now, is another important rule I follow, no matter how fast the business I am evaluating is growing.)

Multiplying Rs 4.6 billion of projected post-tax owner earnings in 2023 by 15 we get potential equity market value of Relaxo of Rs 69 billion.

When this project started in September 2013, the market cap (when the stock price was Rs 144) was Rs 8.6 billion. Compounding Rs 8.6 billion to Rs 69 billion in 10 years implied an expected return of 23% a year. Given that AAA bond yields are about 10%, I would regard that Relaxo was a screaming buy at Rs 144 per share. And if you agree with my assumptions above, wouldn't you have come to the same conclusion?

What about now? At its current market price of Rs 254, the annual average expected return over the

next decade drops to 16% a year. Is that good or bad? That, of course, depends on your opportunity cost i.e. the expected returns offered by *other* opportunities available to you.

At Rs 448, the expected return over the next decade under those assumptions drops to less than 10%. At that price, it would be irrational to own this stock as expected return over the next ten years would drop to below AAA bond yield.

Fuzzy Intrinsic Value vs. Expected Return

A few important observations. First, you don't have to agree with my numbers (or those of Mr. Munger's regarding Coca-Cola) and therefore, my conclusions about Relaxo. That's not what I am trying to do here.

Nevertheless, I urge you to think in terms of unit volume growth, average realization growth, profitability and a reasonable exit multiple to force you to focus on *expected return* instead of *fuzzy intrinsic value*. The example of Relaxo should be used as a mere illustration about the importance of thinking about key *future value drivers* of businesses with scalable moats.

Second, the fact that I (or Mr. Munger) did not refer to important concepts like return on capital, balance sheet quality and the quality of management while thinking about expected returns is that those things have already been considered earlier. The fact that I am thinking about expected return on a business over the long term means that the business has already passed my business and management quality tests.

Finally, regardless of my assumptions about future business volume growth, average realization growth, profitability, and exit multiple (which I believe, some of you will regard as aggressive despite the fact I am using growth numbers lower than what the company has delivered in the past), there is a need for two more sanity checks. One, you must ensure that to deliver all of the projected growth, the company would not require to sell additional equity shares. How to do that is something I will tell you on another day. In any case, Relaxo passes that test.

And second, you must ensure that your projected future value is not too far out of line with the current relationship between the company's equity market cap and revenues. At present Relaxo is being valued by the market at 1.5 times revenues. In 2023, the expected market value of Rs 69 billion when compared with projected revenues of Rs 57 billion, implies a *lower* multiple of 1.2 times revenues. What that means is as the business grows over time, it will become even more profitable than at present, there will be no additional shares outstanding, and so the market value of the firm will continue to rise over time. If it didn't, then the stock would become ridiculously cheap again. (I hope that happens!)

One last point based on an important quote from Keynes: "*When facts change, I change my mind. What do you do Sir?*"

The above framework is just a *template* which needs to be updated periodically based on fundamental performance numbers or other developments relating to the company, the industry, or the economy

which warrants such an update. For example, if the company performance deteriorates for whatever reason and I come to the conclusion that such a deterioration is not an aberration, then I must change my expected return estimate accordingly. Similarly, if interest rates drop to 6%, then a stock which offers a 12% expected return would start looking quite attractive. And so on. In other words, the template is *dynamic* and not *static*. It reflects your thinking about the long-term fundamental performance of the business and its relative attractiveness at its prevailing market price as compared to passive instruments (AAA bonds) and other opportunities available to you. Moreover, you cannot do this with hundreds of businesses, but I think you can with about 25, which pass your business and management quality tests.

I prefer the expected value framework instead of the fuzzy intrinsic value framework for several reasons. One, it forces you to think about *future value drivers*. Second, it helps you determine position sizing between competing opportunities within your circle of competence. Third, it enables you to objectively compare competing opportunities. Using this framework, you can work out at what price to buy and at what price to sell. Finally, it forces you to think long term. If you've no idea what the business would be earning a decade from now, and you still go and buy the stock, you aren't really investing. Think about that...

Let me end by citing two wonderful passages from Warren Buffett's letters to the shareholders of Berkshire Hathaway, reflect much of what I just told you.

*"When Charlie and I buy stocks – which we think of as small portions of businesses – our analysis is very similar to that which we use in buying entire businesses. **We first have to decide whether we can sensibly estimate an earnings range for five years out, or more. If the answer is yes, we will buy the stock (or business) if it sells at a reasonable price in relation to the bottom boundary of our estimate.** If, however, we lack the ability to estimate future earnings – which is usually the case – we simply move on to other prospects."* (Emphasis mine).¹

*"We have no particular bias when it comes to choosing from these categories. We just continuously search among them for **the highest after-tax returns** as measured by "mathematical expectation," limiting ourselves always to investment alternatives we think we understand."²*

Thank you.

Sanjay Bakshi

P.S. A special thanks to my colleague Anuj who helped me on this project.

Ends

¹ Warren Buffett's letter to shareholders of Berkshire Hathaway dated February 28, 2014.

² Warren Buffett's letter to shareholders of Berkshire Hathaway dated February 29, 1988.