

Business Analysis Series

Part I - Assessing Unit Economics to evaluate Business Quality

Understanding the unit economics of any business is the foundation of business analysis. Unit economics isn't just restricted to looking at profitability metrics from the P&L, it also takes into account how much capital has been invested into the business to generate those profits and the future investments needed to grow the business at a healthy rate.

Much easier to understand this with some numbers.

Assume that the investment into fixed assets is INR 100 Cr. This includes the land, equipment and other fixed assets needed to produce whatever products the company is into. This is the **Gross Block** number that is declared in the annual report, this is reported at cost.

Divide the annual operating revenue by the Gross Block number, this gives us the **Gross Asset Turns**.

Next, we calculate the **Working Capital** needed to run the business. This takes into account the inventory, receivables and payables of the company in addition to other relevant current assets. Whatever number this works out to, divide that by the annual revenue of the company without considering non-operating income. This % indicates how much of the annual revenue gets stuck as working capital for the business. If the working capital is 200 Cr on an annual operating revenue base of 1000 Cr, the working capital ratio becomes 20%. It is useful to now express this as the number of days of annual revenue, so we multiply this with 365 days and get to a number expressed in days. For the example we have considered this is the equivalent of 72 days working capital cycle.

From the P&L we now calculate the **EBIT margin** (Earnings before Interest & Taxes)

Fundamental concept of investing – *Companies that generate a return on investment higher than the cost of capital add value and vice versa.*

In concise terms, the ROCE of the business should be higher than the Cost of Capital by a healthy margin

ROCE being defined as (Earnings Before Interest & Taxes)/Capital Employed

Where Capital Employed = Fixed Capital + Working Capital

By default, other than the best businesses (which are hardly 25-30 in number) in India, the cost of capital falls in the range of 12-15% per annum assuming interest rates stay in the range of 4-6% per annum.

A lot of investors now believe that the cost of capital for a decent business should be lower than the range specified above, that is the topic for another discussion. In general you don't lose much by making conservative assumptions in investing.

To revisit what we did, we have at hand some important parameters –

1. Gross Block
2. Gross Asset Turns
3. Working Capital Cycle (in days or in %)
4. EBIT Margin

I like to do the following simple mental calculation when I take a cursory look at any business.

For every INR 100 of Gross Block, how much revenue can the business generate? This is nothing but the Gross Asset Turns for the business multiplied by INR 100. Assume that the business has Gross Asset Turns of 2x on an average, the revenue potential then becomes INR 200

For this revenue potential, how much working capital does the business need? We take the working capital % and multiply it with the revenue potential from the previous step, at 20% the working capital investment works out to INR 40 (20% * INR 200)

Now sum up the Gross Block and the Working capital numbers which works out to INR 140. This is the **Capital Employed** for the business.

Now one might ask why are we considering the Gross Block and not the Net Block (Gross Block minus Accumulated Depreciation)? The answer once again is that I like to work with conservative estimates wherever possible, this is the one way of building a margin of safety. Better be safe than sorry.

To complete the exercise the next step is to estimate the business EBIT at the revenue potential, if the EBIT margin on an average has been 15% then the potential EBIT of the business becomes INR 30 (15% * INR 200)

Combining all of these into the ROCE equation, the expected ROCE of this business given the unit economics becomes ~21% (INR 30 divided by INR 140).

At ROCE of 20%+ this business most likely exceeds the cost of capital of the business and can be considered for further analysis if the other factors are in alignment

Taking this a step further, for this business to grow at 12% p.a. (assuming that is the threshold one sets), will the company need to grow its capital base at the same rate?

Will the company need to resort to external capital (usually debt) or can it fund growth on its own (internal accruals, another word for healthy cash flows)?

This decision takes into account the operating cash flow and the quantum of future investments needed by the company. Now we are starting to think if the company can generate free cash flow and also reduce debt in the process, assuming it has some on its books right now.

Any analysis of unit economics that fails to consider all three financial statements (Balance Sheet, Profit & Loss and Cash Flows) is superficial at best and dangerous at worst.

The implications of this exercise are interesting every single time I do this. One can build a reasonably good understanding of the economics of a sector by doing this exercise for 3-4 companies in that sector.

Below are some observations about businesses that I have been tracking for many years now (not a recommendation to invest in these, purpose is solely to demonstrate the application of this exercise)

Divis Laboratories

This is one of those unique businesses which needs both high fixed asset investments (Gross Asset Turns < 2) and high working capital investments (Working Capital days around 160-180 days). How come the company is so profitable and is considered a high-quality business?

Answer - Abnormally high EBITDA margin in the range of 35%+ indicates that the company is able to offer differentiated, high quality products/service which customers are happy to pay up for. Historical revenue growth rate of 15%+ is the icing on the cake. The same business at an EBITDA margin of 15% becomes an average business.

APL Apollo Tubes

This looks like a very average business at a superficial look. EBITDA margin in the range of 6-8% hardly inspires confidence, even if the growth rate is very healthy at 20%+. The only saving grace is that the Gross Asset Turns are very high at 5x which brings the ROCE closer to the 16-18% during average years and 20-22% during good years.

The margins or gross asset turns haven't changed drastically over the past couple of years, so why does the market suddenly like the business?

Answer – A steep reduction in working capital requirement. The company started selling to the channel on cash as opposed to selling at the usual credit period of 30-35 days once COVID-19 hit. Watch the steep fall in debt level over the past 3-4 months, the management now expects to become debt free in another 12-18 months.

Of course, there are other factors at play too in terms of competitive strengths and growth outlook but the change in unit economics is driven by the welcome reduction in working capital needs, this translates into lower debt level which can further improve profits post tax.

Garware Technical Fibres

This is a business that became a decent business from being an average business post 2015. Neither has the Gross Asset Turns nor the Working capital cycle gotten markedly better, then what changed?

Answer – Spike in margins post the crude crash of 2014-15. A business that was doing operating margins in the range of 12-13% pre 2014 started clocking margins of 16% from FY 2017 onward. Watch the spike in Operating Cash flow and the resultant impact on the balance sheet during the period. This is a classic example of a business that became free cash flow positive due to better margins improved capital efficiency in the process. Once the market got whiff of the possibility that the business would do 25%+ ROCE here on, this reflected in the valuation.

The growth expectations for the business have hardly changed over the same period. It will be an interesting exercise for investors to understand why the margins for this business started improving from 2014 onward, was it just lower raw material prices or was it due to value added products?

Each of the examples considered above had multiple positive developments happening in the business, the change in unit economics is a result of those developments. The best investors catch such businesses in transition and manage to generate alpha, by the time the improved unit economics reflect in the financial statements, the market would have already priced it in accordingly.

This note is specific to evaluating unit economics as an input in determining the business quality. Analysing unit economics is the easier part of business analysis since it is primarily quantitative and does not necessarily call for deep domain understanding of the business.

It is one of the easier skills to pick up, but the downside is that better unit economics is a lagging indicator and not a leading indicator. Unless your skills are so finely honed that you can get a sense of what is changing just by looking at the first quarter of improved unit economics, and you are able to conclude that the improvement is here to stay and is not just a one-off.

If this sounds complicated, investing was never meant to be easy.

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