

## The J-curve in investing and in life

“What does not kill you makes you stronger” – Nietzsche

Quite a profound statement that is. Each one of us have gone through at least one gut wrenching, life changing experience that a. shaped the way you looked at all else later on in life b. taught one some pretty important mental models.

One of the things that’s fascinated me a lot as a mental model is the J-curve. Whether its in investing or in life or in a business, the euphemism of the start and its associated tailwinds soon enough translates into the grating grind of head winds and the challenges associated with it.

**Capital expenditure:** One of the biggest learnings for me has been to understand how the J-curve works when a big capital expenditure is commissioned. One of the key facets to understand the depth and the curvature of the J-curve is to understand operating leverage in that industry – for eg., a company with 70% costs that are fixed is likely to have a deeper and steeper curve (steeper both ways – going into the abyss and out of it). For example, commodities like quartz, steel and cement have a fairly steep and deep J-curve compared to say FMCG (which partly explains the reason of stellar returns in cyclical – the other part being that in commodities and capital goods, price and capacity utilization is a reflexive relationship – so you get the extra alpha of better price and superior operating leverage). As a mental model the lower the marginal cost, the higher the operating leverage and hence the better the play on J-curve. In nominal terms, products/platforms with network effects (google, facebook) > software/platforms with marginal costs (products, SaaS) > high end software services (R&D, OPD) > financial services (banking, life insurance) > decentralized services > high capex, low opex commodities (steel, cement, quartz). As a thumb rule, services that are delivered decentralized (retail stores, cafes etc.) do not have the same operating leverage as say a banking or insurance).

**M & A/acquisitions:** Every time an acquisition happens, the management of the acquirer in order to show value creation, takes an upfront clean up in terms of pruning of employees, write-offs on IP and one –time transitioning costs. The idea is to set up the stage for a nice growth the next quarter/year. Usually expectations of an accretive acquisition kick in as soon as such a news is announced. The bigger difference in cultures and values of the two firms, the bigger usually is the write-downs that come in – for eg., an Infosys may have a dimmer view of the receivables of a smaller acquisition than possibly a KPIT cummins.

**Management changes:** In industries which have long tail backloaded costs of doing business – like in lending, IP led products, R&D costs, incoming managements tend to front load the costs as much as possible to “optically” show an improvement in performance during their tenure. Usually a change in the MD/CEO of a bank is followed by a bath on the bourses and then a steady climb up – For eg., when murali natarajan took over DCB in 2011, there was a lot of clean up done before the QIP in 2014/15 setting the stage for an expansion in BS.

**Entry into a new line of business/geography/pivot in business model:** Any pivot in a model or addition of new lines (which do not have complementarity to existing distribution/product) usually takes time to establish. The hardest moats to establish are distribution, trade relationships, brands and logistics as these have to be built one step at a time. For example, pivoting from a B2B to B2C takes a lot of time to set up sales, distribution, incentives, accounting systems etc. However, overlaying a new product on an existing distribution system which is sold to the same set of customers is an easier ask.

**Timing cyclical:** Usually the J curve in cyclical is prolonged and the tick up from the bottom is difficult to pick up. Usually increase in commodity prices on an increase in volumes is a precursor to operating leverage. Juxtaposing the time it takes for new supply to come around is the key – for sugar, every year is a new cycle; for steel, given it takes 2-3 years to put up a steel plant at the minimum, a cycle uptick can be predicted. Usually another lead sign is debt reducing in the balance sheet of the worst players in the industry followed by a bullish commentary by both the leader and the laggards in the industry. Usually, a rapid improvement in capacity utilization (because of scarcity caused by supply tightening or regulations) is a good sign. For example, in the case of pokarna, a quartz player, the new capacity would come on board in 24 months or so and would be fueled by debt. Given that it's reasonable to assume that EPS/cashflows would contract further (during CWIP) before they start climbing up.

A set of nominal sorting in terms of how the J-curve stacks up considering the following helps a lot. The bottom part of the J curve offers a great entry point if one is sure of the tide turning within a reasonable period of time – say 6 to 9 months. In summary, things to consider are a. the operating leverage in the business b. the capacity utilization of the industry and its trend c. time it takes for supply to come up d. debt/equity in the balance sheet (the lesser the debt the better and lower chances of bankruptcy risk) e. new management/changes in the way the company functions can be good indicators of how long the J-curve would last and help time it accordingly. As an aside to round this off, one thing I've noticed is how innovative companies like google/amazon plough back a part of their profits above a certain benchmark into a bunch of smaller J-curves at any given point, hoping that one of them would succeed. They double up on the J-curves that work and make them bigger and bolder and dial back on the ones that don't.

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