



Capital cycle



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Explaining capital cycle

Typically, capital is attracted to high-return businesses and leaves when returns fall below the cost of capital. This process is not static, but cyclical – there is constant flux. The inflow of capital leads to new investment, which over time increases capacity in the sector and eventually pushes down returns. Conversely, when returns are low, capital exits and capacity is reduced, over time, then, profitability recovers.

Capital cycle analysis looks at how the competitive position of a company is affected by changes in the industry's supply side.

High profitability loosens capital discipline in an industry. When returns are high, companies are inclined to boost capital spending. Competitors are likely to follow – perhaps they are equally hubristic, or maybe they just don't want to lose market share. Besides, CEO pay is often set in relation to a company's earnings or market capitalization, thus incentivizing managers to grow their firm's assets. When a company announces with great fanfare a large increase in capacity, its share price often rises. Growth investors like growth, momentum investors like momentum.

Capital cycle turns down as excess capacity becomes apparent and past demand forecasts are shown to have been overly optimistic. As profits collapse, management teams are changed, capital expenditure is slashed, and the industry starts to consolidate. The reduction in investment and contraction in supply paves the way for a recovery of profits.

China model

Rising prices for commodities were propelled by China, whose investment heavy economy was experiencing consistent double digit annual growth. After the financial crisis, China's investment share of GDP rose even further to some 50 percent of GDP, a higher level than seen before in any other economy. By 2010, China accounted for more than 40 percent of global demand for a number of commodities, including iron ore, coal, zinc and aluminium. China's share of incremental demand for these commodities was even higher. The prices of the commodities and several others were far above their historic trends, arguably at bubble levels.

As the prices of commodities rose, the profitability of global mining companies took off. Their return on capital employed rose from around 7.5 percent at the turn of the century to peak at nearly 35 percent in 2005, rebounding after the financial crisis to around 20 percent. Even after the Lehman bust, most analysts extrapolated recent commodity demand growth into

the distant future on the grounds that China's economy was destined converge with and eventually overtake, the mighty US economy. This nation of high commodity prices, strong profitability and robust expected future demand spurred the miners to increase production.

The commodity super-cycle appears to have turned in 2011, roughly co-incident with a slowdown in China's growth rate. By April 2015, the price of seaborne iron ore was down roughly 70 per cent from peak. **Thus, the great commodity super-cycle bears the hallmarks of a classic capital cycle: high prices boosting profitability, followed by rising investment and the arrival of new entrants, encouraged by overly optimistic demand forecasts; and the cycle turning once supply has increased and demand has disappointed.**

Identifying & profiting from the capital cycle

Capital cycle analysis focuses on supply rather than demand. Supply prospects are far less uncertain than demand, and thus easier to forecast. Mean reversion is driven by changes on the supply side which value investors who consider only quantitative measures of valuation are inclined to overlook. When analysing the prospects of both value and growth stocks, it is necessary to take into account asset growth at both the company and the sectoral level. **Lower asset growth, the better, lesser supply leads to pricing power.**

From the investment perspective the key point is that returns are driven by changes on the supply side. A firm's profitability comes under threat when the competitive conditions are deteriorating. The negative phase of the capital cycle is characterized by industry fragmentation and increasing supply. The aim of capital cycle analysis is to spot these developments in advance of the market. New entrants noisily trumpet their arrival in an industry. A rash of IPOs concentrated in a hot sector is a red flag; secondary share issuance another, as are increases in debt.

Carmakers have to decide not just the price, but also on specification, customer financing terms, new model launches, service and warranty terms etc., leading to the paradoxical conclusion that product differentiation can be an impediment to achieving supernormal returns, Contrast this with the steel or paper producer, whose product is relatively undifferentiated.

The aim is to look for stocks which are selling below estimate their intrinsic value and have strong competitive positions; such companies may benefit from network effects, occupy secure niches, be firmly embedded an industry's supply chain, or enjoy pricing power because their products are sold through third parties more concerned with quality than price.

An understanding of competitive conditions and supply side dynamics also helps investors avoid value traps such as US housing stocks in 2005-06.

Why specialists fail?

Industry specialists are prone to taking the "inside view". Having got lost in a thicket of detail, industry specialists end up not seeing the wood for the trees. They may, for instance, spend too much time comparing the performance and prospects of companies within their sectors and fail to recognize, as a result, the risks that the industry as a whole is running.

The tenets of capital cycle analysis:

- Most investors devote more time to thinking about demand than supply, yet demand is more difficult to forecast than supply.
- Changes in supply drive industry profitability. Stock prices often fail to anticipate shifts in the supply side.
- The value/growth dichotomy is false. Companies in industries with a supportive supply side can justify high valuations.
- Management's capital allocation skills are paramount, and meetings with management often provide valuable insights.
- Investment bankers drive capital cycle largely to the detriment of investors.
- When policymakers interfere with the capital cycle, the market clearing process may be arrested. New technologies can also disrupt the normal operation of the capital cycle.
- Generalists are better able to adopt the "outside view" necessary for capital cycle analysts.
- Long term investors are better suited to applying the capital cycle approach.

Capital cycle analysts, like value investing, requires patience. It takes long time for an industry's cycle to play out. The NASDAQ started bubbling in 1995. Yet it wasn't until the

spring of 2000 that the dotcom bubble finally burst. New supply comes with varying lags in different industries. As we have seen, it can take nearly a decade for a new mine to start producing.

“Instability within an industry can create the conditions for improved future returns”

The turn in the capital cycle often occurs during periods of maximum pessimism, as the weakest competitor throws in the towel at point of extreme stress. When the pain of losses coincides with a depressed share price, investors can find wonderful opportunities, particularly if they are willing to take a multiyear view and put up with short-term volatility.

A capital cycle revolution:

It is not hard to think of examples. Technological advancement in digital semiconductors has revolutionized technology and economic productivity. Yet the experience of investors in the semiconductor industry has been a depressing one. A fragmented supply side allied with high capital intensity and low product differentiation has led to long-term destruction of economic value. It is only very recently, with an improvement in the side via consolidation, that the outlook has improved.

Investors should not expect earnings to grow in line with the economy. Rather, they should look out for those rare examples of management who are prudent in their use of capital. The starting point for company analysis is not the outlook for end demand but rather the supply side, our goal is to find investments in depressed industries at positive inflection points in the capital cycle and in sectors with benign and stable supply side fundamentals.

Value in growth (warning labels)

Energis, the UK alternative telecoms carrier, was bid up to a value of 10 times invested capital during the ‘New Economy’ boom of the late 1990s due to the perceived growth potential for broadband and data networks. After an excessive amount of money had been invested in the sector, Energis’s shares were sold down to a tiny fraction of capital invested. The lesson here recently is not only the slim dividing line between value and growth but also the danger of ‘value traps’ since Energis never turned out to be cheap however much the stock fell.

Our belief is stock should be viewed as ‘growth’ or ‘value’ opportunities, but rather from the perspective of whether the market is efficiently valuing their future earnings prospects. From

time to time, what the short term guys are selling can turn out to be wonderful long term investments.

Do agents matter?

In the upscale hearing aid market, a field dominated by European firms – Siemens – there is a similar emphasis on continuous innovation. The fitters of hearing aids, like dentists are keen to sell high-end products which earn them more money. Defining characteristic of the high-end products is that they require a customized fitting, since everyone's "ocular canal" is unique. Their hearing aid costs around \$1,000; on top of this, the fitter charges another \$2,000 for customized service. Innovation in hearing aid technology has been a boon for raising product prices. Once again, the customer is not price-sensitive. The producers of hearing aids and dental implants are helped by the fact that the markets into which they sell their products are so fragmented. Charlie Munger is right. Customers will pay more when agents are involved. In each of the cases – plumbing, dentistry, hearing aids or producing testing – involved value being transferred from the person who pays to the agent, with the producer taking a large slice of the pie. Each of these models has evolved over time and appears reasonably robust, even as consumers become better informed in the internet age.

“Internet companies investing in their competitive positions can afford to ignore short-term profitability”

The presence of intangible assets acts as a powerful barrier to entry. They are by nature durable, difficult to replicate and tending to economies of scale. Importantly, these barriers often strengthen over time, as high returns on capital throw off abundant free cash flow which is in turn reinvested in the business. **Companies that provide indispensable services to their customers often prove to be excellent investments.**

Management check:

- Don't get too close to management.

There is always a danger that an analyst is “captured” by management. This risk rises for specialist analysts who spend most of their time covering a small handful of

companies, whereas a generalist might cover a few hundred. Capture poses the threat that an analyst lands up becoming the mouthpiece of management.

- Don't hunt for too much information.

Having more information doesn't necessarily improve decision-making. When analysts have too much data, there's a danger they won't see the wood for the trees.

- Check management incentives.

Management has a huge influence over the capital allocation of a business. Decisions taken by senior executives are likely to be influenced by their incentives. executive was primarily rewarded on the basis of earnings per share (EPS) growth – a metric which can be boosted with acquisitions and by the use of leverage.

- Living in a cocoon.

Specialist analysts operate in a cocoon, in which they are overexposed to company management and peer analysts and underexposed to what is going on in the rest of the world. Herding instincts may tend to reinforce similar opinions among peer analysts. A specialist analyst couldn't say whether India cements was a good investment relative to, say, a Scandinavian paper company or a Thai cement plant.

“A great mystery of the corporate world is the tendency of management to buy high and sell low”

The lure of cheap debt and apparently rosy growth prospects enticed many managements into thinking that not only were their own shares cheap, but that the equity of other companies also offered good value, particularly given the extremely low cost of capital at the time. This herd-like behaviour was exacerbated by the private equity bubble, The inevitable appearance of corporate excess at a high point in the cycle represents a significant drag on returns for investors in public equities.

The best managers understand their industry's capital cycle and invest in countercyclical manner.

When an investor makes a long-term investment in a company, success or failure generally turns on the investing skills of senior management. Over the medium term, return on capital is generally determined by the CEOs decisions about capital expenditure, merger and acquisition activity, and the level of debt and equity used to finance the business. In addition, the question of whether to issue or buy back shares, and the stock price at the time of these decisions, can have a huge impact on shareholder returns. When portfolio managers buy shares, they are effectively outsourcing investment responsibilities to the incumbent management team. The CEOs fund management skills can be just as important as his skills in managing day-to-day operations.

Long term share ownership is probably the best way of concentrating the minds of management on the true drivers of value. The manager's instinct for wealth protection should guard against excessive risk-taking.

“Family control can cause problems for outside shareholder, but it can also provide an elegant solution to the agency problem”

The evils which arise at joint-stock companies where management and ownership are separated are not of recent vintage.

“The directors of such companies ... being the managers rather of other people's money rather than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which [they would] watch over their own...Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company” (*Wealth of Nations*, 1776)

Aside from this, family businesses are often prone to nepotism and paralyzing family disputes. Family-controlled companies must prepare to hand over the reins to the next generation.

What follows is a list of common family deficiencies, any one of which is liable to undermine a company's success.

- 1) Lack of family unity.

- 2) Loss of business acumen.
- 3) Self-dealing.
- 4) Poor succession planning.

When the success of the company is not tied to the family, but to the social and political connections of the founder, minorities should brace themselves for occasional whiplash. This has been a particular feature of Asian family-owned companies whose fortunes have been built on the monopolies and concessions derived from political connections, and where a lack of succession planning by octogenarian founders has led to stock price weakness.

One can learn a lot from meeting with managers, providing the setting is right.

Does the CEO think in a long-term strategic way about the business? Understand how the capital cycle operates in their industry? Seem intelligent, energetic and passionate about the business? And interact with colleagues and others in an encouraging way? Appear trustworthy and honest? Act in a shareholder-friendly way even down to the smallest detail?

What does your global competitive environment look like? In the last three years, what have your competitors done to alter the competitive landscape? In the same period, what have you done to them? How might they attack you in the future? What are your plans to leapfrog them?

“When a management team compliments a competitor, this can be like gold dust to investors”

Signs of humility – say a recognition of past mistakes – give us some confidence that the chief executive has a grip on reality.

The right corporate culture

Corporate culture is constituted by a set of shared assumptions and values that guide the actions of employees, and encourage workers to act collectively towards a specific goal. Cultures both reflect the values, and are a prime responsibility, of management. Yet strong cultures can persist long after the careers of those who put them in place. An obsession with growing earnings occasionally results in outright fraud.

Cost-cutting is not the only successful cultural model. In fact, some firms have strengthened their cultures by spending more, not less. The classic example is Costco, the North American discount retailer. Bucking the conventional retail model, Costco pays its staff more than the legal minimum wage – and far more than rivals. The average Costco employee makes in excess of \$20 an hour, compared to average US national retail pay of less than \$12 an hour. The company also sponsors healthcare for nearly 90 per cent of workers. Wall Street is constantly pressuring Costco to cut its wage bill, with the cacophony reaching a peak during the crisis of 2009. Instead, the company raised wages over the following three years. The return for this munificence is that Costco employees stay on longer, thus saving on training costs. Turnover for employees who have been with the company for more than one year is a paltry 5 per cent. Loyal employees are more likely to excel. Costco is regularly rated as excellent for customer service.

The point is that a strong corporate culture constitutes an intangible asset, potentially as valuable as a high-profile brand or network of customer relationships.

Seven deadly sins of 2007 that led to collapse of financial system

- 1) Imprudent asset-liability mismatches on the balance sheet.

Borrowing short and lending long.

- 2) Supporting asset-liability mismatches by clients.
- 3) Lending to “Can’t Pay, Won’t Pay” types.

Earning a few extra basis points of spread each quarter, while losing sight of credit risk, namely the chance that borrowers might never be in a position to repay the principal.

- 4) Reaching for growth in unfamiliar areas.

A number of European banks have lost billions investing in US subprime CDOs (UBS has blown some \$40bn in this manner), having foolishly relied on “experts” who told them that these were riskless AAA rated credits, i.e., they outsourced the underwriting decision.

- 5) Engaging in off-balance sheet lending.

6) Getting sucked into virtuous/vicious cycle dynamics.

The fact that every bank was lending in the same market made it feel safe, and for a while the virtuous cycle continued. Real estate markets around the world were similarly characterised by the notion that asset quality was independent of credit conditions.

7) Relying on the rear-view mirror.

A recent expression of this common financial vice includes the widespread use of value-at-risk models. Such models tend to be based on a limited amount of historic data, which in the years before the crisis were relatively benign. True risk was understated.

When credit was cheap and animal spirits ebullient, the desire to press “go” on new capital projects was hard to resist, particularly when peers were engaged in the same race and the stock market was rewarding growth. Unfortunately, such “malinvestments” as were made during boom times have proved hard to eradicate in a period when interest rates have remained low, banks have been reluctant to call in bad debts to avoid losses, and politicians across the eurozone have done their utmost to prevent unemployment moving even higher.

Given that credit is a commodity, capital cycle analysis is as relevant for banks as it is for any other commodity business. There are, however, some differences. Because credit has no physical constraints, its increase is limited only by the amount of equity a bank can accumulate and the amount of leverage it can assume. This makes it easier for management to get carried away in the upward phase of the cycle. When the banking cycle turns, there needs to be a catch-up charge for the unrecognised sins of the past – that is, a spike in credit costs. Capacity also needs to exit through deleveraging; this comes in the form of shrinking balance sheets and mergers.

“The capital cycle ceases to function properly when politicians protect underperforming industries”

With hindsight, our capital cycle approach has failed at times when we have underestimated the impact on industries of political and legal interference, disruptive technologies and globalisation. Capital cycle analysis tends to be more effectively applied to industries which are largely domestic in nature or where the dominant players are inclined to Anglo-Saxon style capitalism (as is the case in the global beer industry).

Living dead

In finance theory, a lower risk-free rate implies a lower cost of capital (unless the equity risk premium rises to offset this). And a lower cost of capital means a higher market P/E is justified. But it's naïve to forget the reason why interest rates are so low in the first place, namely a weak economy, high leverage and the memory of a near catastrophic financial collapse in the rear-view mirror.

Overall, the continuation of extraordinary monetary policies should be a negative signal for equity holders. It implies that the real economy remains challenged and unable to withstand normal monetary conditions. This, in turn, suggests it is unlikely that the economy will be able to grow fast enough to reduce aggregate leverage to a more sustainable level. Furthermore, the increasing leverage of the public sector raises the risk of another debt crisis – this time a sovereign one – at some future stage. Finally, the longer interest rates remain suppressed, the greater the risk of distorted economic outcomes as falling hurdle rates for investment impact on aggregate returns on capital. The danger is clear – we face a lost decade of growth, this time in the Western world.

Potential signs of inversion of a bubble:

- Commodity prices declines.
- Private equity valuations collapse.
- Decrease in IPO market.
- Reduced M&A activities.
- Retail investors burnt.

Considering the above signs could signal an upturn and beginning of a new cycle.