ValuAnalysis

25th May 2020

ValuInsight – Why Microsoft might *really* get bigger than the entire UK market

- **A popular chart circulates, showing Microsoft's market capitalisation climbing up towards that of the entire FTSE100.** Presumably, the creators of this chart intend to suggest that a single company cannot be challenging the market value of an entire stock exchange.
- **The economic shakeout of the COVID pandemic is so significant that, understandably, no one (including us!) can fathom its consequences.** But applying old market gimmicks won't help either. Growth, value, cyclicals, defensives, all these categorisations were largely useless as an investment guide at the best of times. Now, they are plain dangerous. Vinci or Unilever, two "defensive" stocks, have fallen just as much as Booking Holdings, a growth stock, but Rockwell Automation, a cyclical stock, is at an all-time high. Compass, a well-run catering business, has almost halved, but Ericsson, a basket case of questionable corporate strategy, is hardly down. We can't analyse, let alone solve, this novel crisis with old recipes.
- **In the iconic film *the Good, the Bad and the Ugly*, Blondie (Clint Eastwood) divides the world between "those with guns and those who do the digging".** In this new world, there are those who can protect the value of their operating assets, sustain the level of their economic rent and benefit from seemingly invulnerable growth, and all the others.
- **Assets, Rent and Growth are each at the core of our proprietary Three Sources of Value: Replacement, Franchise and Growth.** We debate how each of these categories is under attack from the current economic crisis.
- **A small group of companies, reminiscent of the Nifty-Fifties, hold the gun** and do not appear easily assailable. Microsoft is perhaps the quieter of them all, but probably the most robust, too. We think that it takes a brave investor to depart or ignore this new staple which, we believe, will keep on rising in value.

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A New Paradigm for Market Segmentation

The 2020 pandemic is leaving a trail of confusion among market watchers. The traditional market segmentations, be it growth/value or cyclical/defensive are exposing their meaninglessness conspicuously. Vinci, once a defensive stock, has fallen by more than 27% over the past 12 months, almost as much as Booking Holdings, once a growth stock, itself mimicking the fall of Unilever, another "defensive" stock. But Atlas Copco, once a cyclical stock, has only fallen by 8% over the same period, and the shares of Rockwell Automation, a Capital Goods company, have not fallen at all. As the Americans say, "go figure" ...

The COVID disease is rearranging the deck chairs in a fairly brutal way. There is a very substantial performance divergence between:

- Those being hit directly by the consequences of "social distancing" (travel, hospitality, social event organisers of exhibitions, live sport etc)
- Those being hit indirectly by a collapse of demand or credit deterioration (Industrials, Cars, Financials)
- Those being resilient either by displaying management excellence (more in the US than Europe, but in the latter case, similar examples - LafargeHolcim or Schneider Electric - can be found, too) or by virtue of their sector (selected Healthcare, Staples and Technology)
- And finally, those who benefit from the situation, largely by providing the means to implement social distancing (Amazon, electronic games editors, and generally digital economy implementors).

The textbooks are clear on the future recovery path; one should look for depressed stocks (i.e. the first two categories of our previous list) and be wary of the highflyers. And indeed, the remarkable market rally which has taken the S&P 500 from a low of 2237 on March 23rd to the current 2960, a cool +32%, is largely based on this principle.

Markets don't reward pessimists, as Elroy Dimson and his co-authors reminded us in their inspirationally named study of global investment returns *Triumph of the Optimists.* We might modestly add that *markets don't reward naivety either.*

The idea that the consequences of the crisis might be brushed away in a couple of quarters is baffling. The implementation at work of social distancing, the uncertainty at corporate level for planning (CAPEX in particular), the re-thinking of property investment for downtown corporate locations are so deeply disruptive that productivity is more likely to go down, growth is more likely to decelerate, margins are more likely to be capped. In our view, the new market segmentation is between:

- Those who can protect the value of their operating assets
- Those who can sustain their level of economic rent
- Those who can benefit from a sustainable growth rate
- And all the others who can't.

Microsoft, the Quiet but Relentless Winner

If Amazon is the hare of a post-COVID economy, then Microsoft is the tortoise. This does not refer to its growth rate, which is anything but tortoise-like, but, rather, the slow and relentless consolidation of its dominance in the corporate world. Some commentator recently circulated a comparison between the market capitalisation of Microsoft (ca. USD 1.4tn) and the market value of the entire FTSE100, (ca. STG 1.6tn). The implication was that it was insane for a company to be approaching the market cap. of a major country's benchmark. We beg to differ.

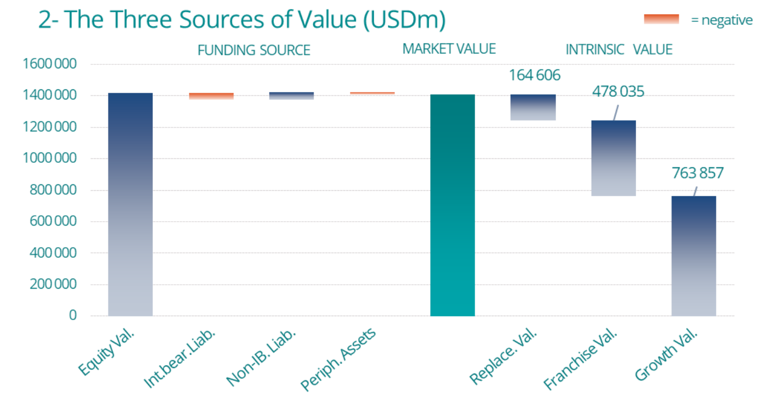
The Three Pillars of Value Creation

Corporate entities produce (or destroy) value on the basis of three endogenous and one exogenous factors: growth, economic rent and capital employed (endogenous) are combined to produce free cash flow, which is valued in an ambient cost of capital (exogenous) to produce a market value.

The three endogenous factors are at the core of the Intrinsic Value approach theorised by Benjamin Graham, which we have been implementing since the creation of ValuAnalysis, under the generic term "The Three Sources of Value". Schematically, the market value of an asset (on the right-hand chart, Microsoft), can be broken down into a Replacement Value ("capital employed"), a Franchise Value (the value produced by the economic rent) and a Growth value (the value produced by growth).

The crisis born out of the 2020 pandemic is exceptional in that it brutally challenges all three components. In previous, "normal" cycles, cyclically exposed companies do see their spot economic rent or growth rate dive temporarily, and most recover eventually. In this instance, the large majority of companies, even the previously resilient ones, experience a structural challenge to the value of their operating assets, to the sustainable level of their rent and growth rate. Only a handful of exceptional, "antifragile" companies[1] like Microsoft see these components "inexplicably" unaffected, actually enhanced. They are likely to command a seemingly "inexplicable" valuation multiple eventually.

Microsoft - Three Sources of Value



Source : ValuAnalysis limited

[1] *Nassim Taleb defines "antifragile" as the ability to profit from volatility*

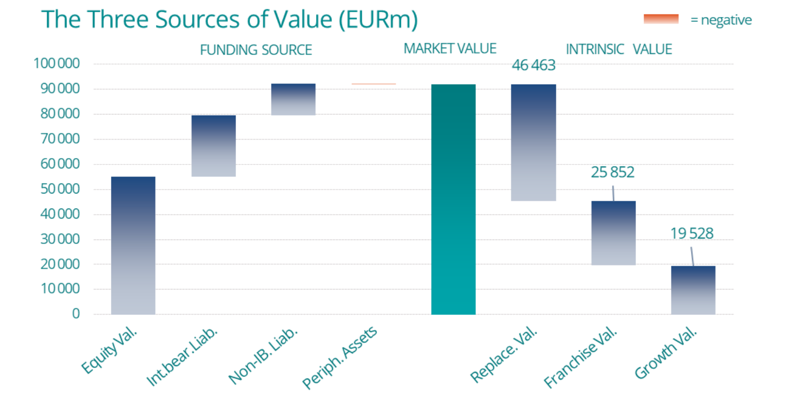
Assets – beware of impairments

Impairments are usually affecting inflated goodwill, as companies do occasionally pay over the odds for an asset they really desire. Thus, impairments rarely impact operating assets, which for us are tangibles, intangibles, “concessions” (e.g. customer relationship), but exclude advanced payments or negative assets (e.g. negative working capital), and goodwill.

VINCI, the airport concession operator, offers a striking illustration. 34% of its capital employed is in airports. It is doubtful that airports will see as much traffic as before for the foreseeable future, and even if they did, it is doubtful that the new crowd avoidance practices will make them as profitable as before. In this case, operating assets might well be impaired, and the consequences are not trivial.

Below is how VINCI “pre-COVID” looked like. Shares were ca. EUR 100 and trading on 25.6x normalised Free Cash-flow:

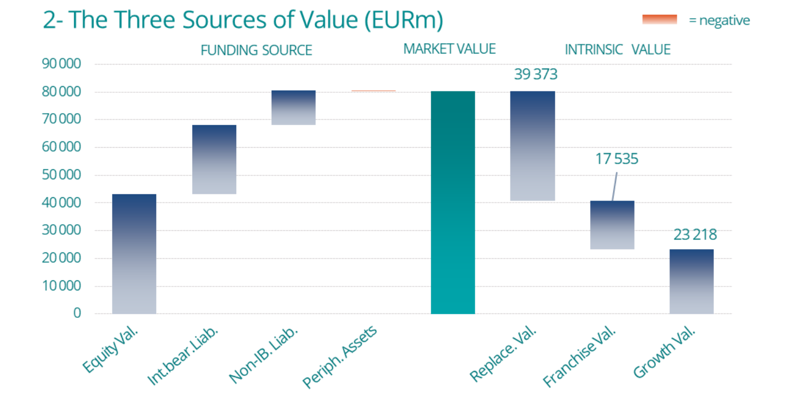
Vinci @ 100 – Three Sources of Value, no Impairment



Source : ValuAnalysis limited

Following the crisis, we changed trend growth to 3% (from 3.5%), dropped the normalised rent level to 7.7% (from 7.9%) and impaired operating assets by EUR 7.6bn, or 12% of group assets (affecting airports and to a smaller degree motorways). The shares, at EUR 78, trade on 26.7x normalised net FCF, **almost an unchanged level from when they were more than EUR 20 higher**. But this is misleading, as the chart below illustrates.

Vinci @ EUR 78 – Three Sources of Value, 12% impairment



Source : ValuAnalysis limited

The reduction in Replacement Value due to the impairment (from EUR 46.6bn to EUR 39.4bn) is implicitly changing the fade rate, or the rate of attrition of the rent and growth. Financial models only work when both rent and growth fade to the cost of capital and GDP growth, respectively. Practically, there is no perpetual competitive advantage in the world. The quicker the implied fade, the more attractive the shares, because companies are then in a position to “beat the fade”, or surprise investors positively, which might trigger a re-rating. In practice, the quicker the fade, the smaller the implied Franchise and Growth Values.

Here, the reduction in Market Value via the fall in the share price does accommodate some reduction in Franchise Value (from EUR 25.9bn to EUR 17.5bn), which is broadly correct if investors agree with us that the normalised, or sustainable economic rent of the company has been damaged. But the implied Growth Value increases, which is more than unlikely. And Vinci is actually more expensive at EUR 78 than it was at EUR 100.

In our opinion, it is far too early to guess how many companies will be affected in this way. With the cost of doing business going up and productivity going down, we believe that the global economy may have to run on, call it 90%, for quite some time, and this without considering, potentially, a structurally lower demand. But whatever the final number is, one thing is almost certain: Microsoft won't be part of the list.

Economic Rent

We call "rent" the yield that investors are able to extract from their nominal invested capital[2], calculated as the ratio of operating Free Cash Flow to Replacement Value (one of the Three Sources of Value). Analytically, we assess an economic Rent on three dimensions:

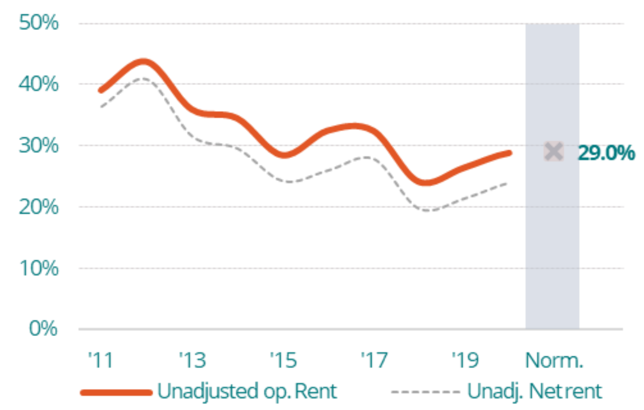
- Its level
- Its dynamics
- Its sustainability

[2] *This works like a bond; the **rent** is the ratio of the "coupon" (here free cash flow) over the nominal value (here replacement value). The **yield** is the ratio of the same coupon over the **market value** of the asset.*

Over the long run, the rent of the market has to converge towards the cost of capital, for the reasons explained earlier. Because we exclude low renting businesses in our universe, our sample (ca. 300 global stocks) has a structurally much higher rent, ca. 12%. This is already a phenomenal excess return (over the cost of capital). By way of comparison, excellent industrial businesses, like Air Liquide or LafargeHolcim, barely reach 6%, our putative long-term real cost of capital.

The following chart shows Microsoft's operating rent over the last 10 years.

Microsoft Operating Rent



Source : ValuAnalysis limited

Note that Microsoft's rent is fading; the rent has lost more than 10 percentage points over the past decade, which is normal for a technology business, and, incidentally, proves that the company is not in a monopolistic situation.

The level of Microsoft's rent is phenomenally high, more than twice the sample average, and more than 4 times the cost of capital. Whilst theory suggests that a high rent is vulnerable because it attracts more competition, for obvious reasons, a high rent level, even if fading, is also valuable because it allows the company to accrue value at a high clip either to reinvest in its competitive advantage or in growth, or to reward its shareholders (or both). A high rent is akin to a slick perpetual movement machine, a low rent to a noisy 1950s tractor diesel engine.

The dynamics of Microsoft's rent is equally interesting. Over the past few years, the chart shows that the rent has been increasing again; this is not really surprising, considering the momentum of Azure, Microsoft's cloud business, to name just one factor. We expect to see a widening divergence between the market's rent, which is likely to trend down in the coming years, and that of Microsoft, which could, at worst, stay constant, or, more likely, increase further.

The sustainability of Microsoft's rent is strong and getting stronger as a result of its exposure to secular trends, notably the digitalisation of corporate and government processes, ranging from working from home to accelerated migration to the cloud. As the CEO remarked during the most recent earnings call, "two years of digitalisation have taken place in two months". This speaks for a strengthening of its competitive advantage, which usually translates into a more sustainable (less vulnerable to competitive forces) economic rent.

Growth

Whilst the market's overall rent level is likely to recede under the bouts of decreased productivity and increased costs of doing business, the growth profile is likely to be dented by exceptionally high levels of unemployment, unmanageable public debt, reticent banks and distress in (large?) fragments of the corporate network, affecting CAPEX.

In contrast, let's review Microsoft's three main business segments:

Division	% sales	YoY Q3 growth
Productivity & business processes	33%	+16%
Cloud	35%	+32%
Personal Computing	32%	+4%

Source : Microsoft fiscal Q3 (Jan-mar 2020)

(Almost) anyone is capable of producing strong numbers during one quarter. In contrast, Microsoft is exposed positively to the tectonic shifts that are shaking the corporate world, pre, and even more so post COVID. To quote Mr Nadella again (CY Q4 2019 earnings call): "tech. spend as a % of GDP is projected to double over the next decade". On this assumption, let's guess that GDP growth might average 2.5% (a realistic assumption for the US and Europe, and a conservative one for the world). This translates into an 10.7% annual average growth for Microsoft's markets; Put GDP growth at 4%, and the figure becomes 12.3%...

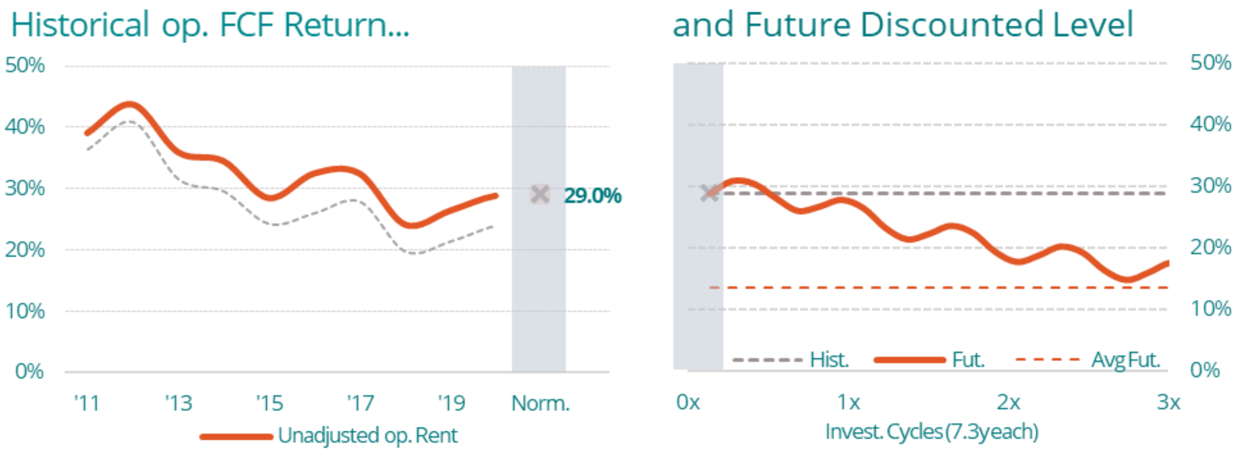
The Price of Growth

Saying that Microsoft is a powerhouse is hardly going to surprise anyone. What matters, and what is at the core our approach, is what is priced into the shares.

Modelling future growth and rent

Readers will recall that, according to Mr Nadella's predictions, trend growth for Microsoft markets may range between 10.7% and 12.3% per annum for the coming decade. We are using an 8% *average* growth rate over the next decade, which is producing this implied profile of rent, with shares trading at $185:

Microsoft – Historical Operating rent and Implied future profile @ $185

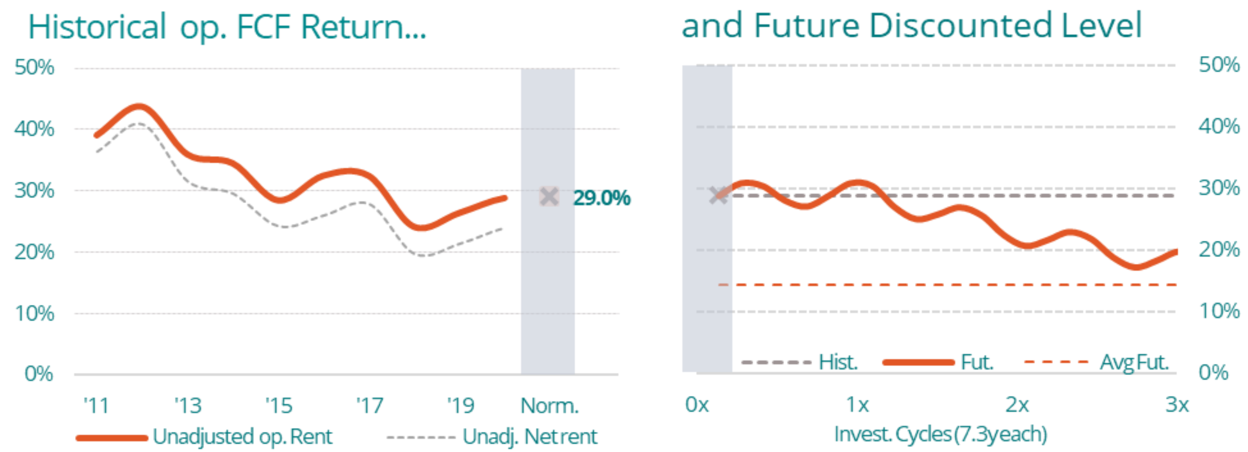


Source : ValuAnalysis limited

Whilst the left-hand chart simply shows the historical profile, the right-hand chart plots the future profile of rent derived from the current market value. Technically, it is an inverse DCF. At 8% average trend growth until 2030, investors expect a marked decay ("fade") of the operating rent, more or less in line with history, but in contradiction with the short-term developments (e.g. emergence of collaborative tools, cloud etc...) and the COVID-induced new corporate behaviour.

In the next simulation, we increase trend growth to 10% on average for the next four years, and 9.6% for the next decade. We change the rent profile as shown on the right-hand chart, allowing for a more conspicuously sustainable rent around current levels, before fading. We feel that this is more in line with Microsoft's positioning and competitive advantage, and the new economic environment. The average rent of the next 4 years comes out at 29.1% (versus a historical normalised level of 29%), and 28.5% for the next 10 years. After that, as the chart makes it clear, the fade is more pronounced, at 4.4% p.a. This relatively benign profile corresponds to a share price of $ 250, some 35% more than the current share price.

Microsoft – Historical Operating rent and Implied future profile @ $250



Source : ValuAnalysis limited

Like a tortoise, Microsoft may well take its time to reach that point. Investors are still sceptical, it seems, that it might even ever get there. Yet history and luck have gifted the company with exceptionally benign tail winds in an environment of hurricanes leading sometimes to devastation. Management execution has been pretty good, and it takes a brave investor to bet against this powerful convergence, in our view.

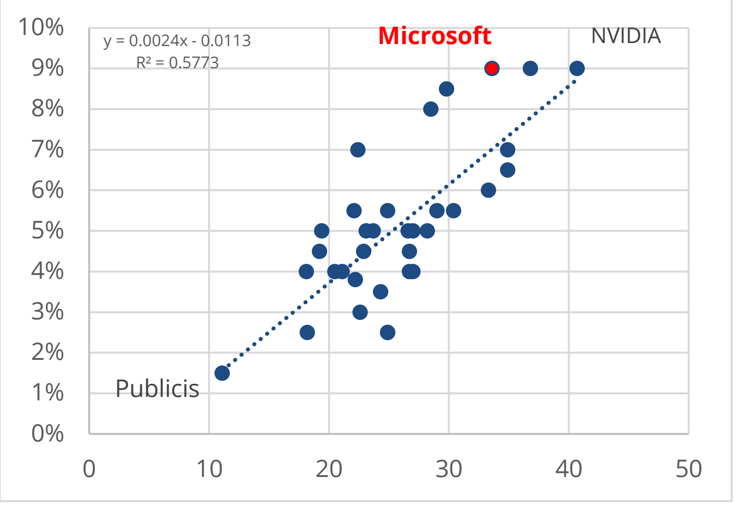
Microsoft in the context of the market

We have been dealing with Intrinsic Value models for the better part of a quarter of a century, and, broadly, investors have been kind enough to listen politely and even attempt to understand our point of view. But, more often than not, in the end came the same question again "what's the PE ratio?" …

Microsoft's "PE ratio", which for us is a FCF multiple, is 33.6x. is it a lot? Relative to the market average, even of the better companies, it is higher. Relative to the intrinsic qualities of the company, we believe that it looks quite attractive.

In order to assess the relative merits of stocks, our preferred matrix is the regression of their FCF multiple and their growth rate, both normalised. Many things can affect a specific multiple, including the risk premium that investors are willing to ascribe to this investment, the quality of management, ESG considerations, rarity of the underlying asset etc… But the principal factor, by far, is the growth rate. On the following chart, we show this relationship; the statistical relationship is not one on which you would rely to run a nuclear submarine, but there is clearly – as one would expect - a correlation between the two variables.

FCF multiple (x axis) and growth rate (y axis)



Source : ValuAnalysis limited

Publicis, a low growth, low multiple proposition, is at one extreme of this sample, and NVIDIA at the other extreme. Microsoft belongs to a small group of companies whose multiple is out of whack (ie too low) relative to its growth rate, which investors assume, therefore, not to be sustainable at this level. Said Investors will believe this at their peril, we think.

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	"Buy", "Hold" and "Sell" recommendations		Investment services provided to these issuers in previous 12 months	
Recommendation	**Number**	**% of total**	**Number**	**% of total**
Buy	31	49.2	0	0
Hold	21	33.3	0	0
Sell	11	17.5	0	0

The above table covers the period 23rd May 2019 to 22nd May 2020. This disclosure is reviewed and updated on a quarterly basis. Last updated *22nd May 2020*.

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