Connecting economic value to company strategy: critical issues and new perspectives

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In estimating a company's economic value strategy should be a key reference, as it is a main driver for future financial performance. Consequently, it is important to endow the value measurement process with a robust and structured strategic content. But strategy and value are talked about in different languages not easy to combine, and the value measurement models usually employed show some critical weaknesses in dealing with the strategic variables. To improve the current practices, the article outlines some ideas and proposals by focusing on two main topics: first, which financial algorithms to choose to estimate value; second, how to translate the 'words and narratives' of corporate strategy paradigms into the 'numbers' that those algorithms require to identify. A real case is briefly presented to demonstrate how to proceed practically. Finally, the idea of a 'value selfie' to be taken periodically is suggested, along with a responsibility for CFOs to assume in diffusing an 'economic value culture' within their companies.

In order to make engagement with shareholders as productive as possible, companies must be able to describe their strategic framework for long-term value creation and explicitly affirm that it has been reviewed by their board of directors.
Larry Fink, CEO, BlackRock (2018)

This article develops the idea that a critical weakness currently exists concerning the link between the evaluation financial models and a company's strategy. To bridge the gap, it makes some suggestions aimed at better combining the conceptual paradigms of finance and strategy in a theoretically robust as well as a practically feasible way. It benefits from the contributions (not so many, to tell the truth) of the most authoritative academics and of the most respected consultants who have been working on the same subject matter.[1] The intent of the author (neither a professional business appraiser nor a financial market analyst, but an academic and professional strategist with a background in economics and finance) is not to indicate easy solutions, but rather to promote a debate about a fascinating, as well as critical, topic.

1. Current practices and critical issues

It is obvious that, since measuring value requires looking forward, a key unavoidable input should consist of an accurate analysis of the company's strategic profile. If the strategy is the project of the future that a company is willing to pursue, the appreciation of the company's economic value needs a clear understanding of that project, and of its suitability and risks.

Strategy and value are two sides of the same coin, since both look at a company globally and with a long-term horizon. They need each other, too: without considering strategy, value may be a poor measure; without measuring value, strategy may result in a poor choice.

Consequently, a good evaluation approach should include a consistent consideration of the main strategic variables, such as the business prospects, the company's business model and its competitive risks. Is this the case? Do the models in place incorporate those variables properly?

Unfortunately, the marriage between value and strategy is far from a happy one, both in theory and in practice.

One reason is that they are usually talked about in two different languages that are not easy to combine: discourses concerning strategy are based on words and narratives, while those concerning value are focused on numbers and mathematical formulas. This may be a relevant problem, if "storytellers and number crunchers behave as two tribes, each one speaking its own language and each convinced that it has a monopoly

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[1] The academic pioneer on the subject was Alfred Rappaport (1986, 1998). Concerning the consulting industry side, a distinctive contribution has come from SternStewart (Bennett Stewart, 1991), Marakon Associates (McTaggart et al., 1994) and above all McKinsey, whose best-seller *Valuation*, firstly published in 1990 (coauthored by T. Copeland, T. Koller and J. Murrin), has reached its 6th edition (Koller et al., 2015).

on the truth and that the other side is the one that is wrong" (Damodaran 2017, p. 1).

From a technical perspective, the prevailing practices appear loosely connected to the strategic variables, and for some aspects even in contradiction with some basic strategy theorems. To be convinced, let us take a deeper look at the main evaluation items.

a) Perpetuity

Usually, value measurement practices employ the *perpetuity* mathematical scheme, which means considering value as a perpetual rent based on three expected rates: profitability, growth and the shareholders' cost of capital (see Box A).[2]

Box A - Measuring value according to the perpetuity scheme

Assuming that, by definition, value is the net present value of the cash-flows that shareholders can expect to receive in the future, the perpetuity scheme hypothesizes that the company's future will be characterized by steady conditions in terms of profitability and growth. Hence the expression of value of Equity as $V_E = DIV_1 / (c_E - g)$, where DIV_1 is the dividends expected for the first year to come, c_E is the shareholders' cost of capital and g is the annual growth rate.

In the no-growth case (g = 0) the whole Net Profit (NP) can be distributed, so $DIV = NP$ and $V_E = NP/c_E$. As return on equity is $ROE = NP/E$, it follows that $V_E = E \times ROE/c_E$.

If a positive growth rate, g, is introduced, the net profit cannot be totally distributed because of the need to finance growth, so $DIV = NP - g \times E = E \times (ROE - g)$. At the same time, the dividends themselves will be expected to grow (perpetually) at rate g. Conclusively, according to the perpetuity scheme (applied to the case of a perpetual rent growing at rate g), it will be: $V_E = E \times (ROE - g)/(c_E - g)$.

The perpetuity scheme is questionable from a strategic point of view. In particular, the theory of strategy specifies that:

- to create value (i.e. to realize enduring profitability that is greater than the cost of capital) a company has to own some type of competitive advantage. If this is not the case, its profitability will be forced by the competition to align with the cost of capital itself;

- a competitive advantage cannot be considered as a perpetual rent. Like a runner leading a race who is aware that his pursuers will try to catch him, a company owning a competitive advantage can be certain that its competitors will be strongly committed to neutralizing it through either imitation or innovation (that is, by excogitating a new kind of advantage). Thus, the fatal end for its profitability is to erode, sooner or later, to the cost of capital level, pushing the value creation spread to zero.[3] The real question is not *whether* this will happen but *how long* it will take to happen. These concepts bring into play the *competitive advantage period* - a variable up to recent years neglected by valuation theorists and eluded by value practitioners.[4]

Beyond economic logic, common sense and statistics, one more reason can support the idea of value creation as a temporary attitude for a company. Actually, it seems reasonable to assume that, along with the natural decline of any competitive advantage, the cost of capital should increase somewhat. In fact, a competitive advantage is per se a risk-mitigating factor: the stronger the company, the more stable the results that it can be expected to achieve due to its superior resilience during economic downturns.[5] In conclusion, the value creation margin seems destined to be squeezed because of declining profitability and a rising cost of capital. Nothing could be farther away from a perpetual source of value creation!

b) Growth Rate

The measure of value can be distorted by a second factor, namely the growth rate. In addition to the problem of defining a reasonable estimate in the short-term, growth rate is also a critical item in computing the terminal value. The assessment of a single rate which can realistically combine the long-term expectations about inflation, the general economy, a specific business evolution and a company's growth objectives is a challenge of heroic proportions.[6] Like everything and everyone in the world, companies and businesses follow a life cycle, and growth rates can be expected to

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[2] It is worth mentioning that the perpetuity scheme comes into play for any kind of evaluation model employed. For example, if value is computed by adding the so-called *terminal value* to the net present value of the cash flows expected for the years covered by a business plan, generally the terminal value itself is calculated by applying the perpetuity hypothesis.

[3] In truth, few companies in few industries show steadily high profitability in very extended time horizons. But even in this case the perpetuity assumptions can be questioned: is it correct to ascribe the long-term results to a pre-existing competitive advantage, or should they rather be attributed to the managers' ability to reinforce and/or reproduce and/or renovate an advantageous position over time? If this should be the case, would you pay in advance for a value creation which will be on your shoulders to achieve?

[4] The subject of the competitive advantage duration or sustainability

has been explored in the economic literature only sporadically, at least until the end of the last century. A mention of a similar concept can be found (in a footnote, by the way) in Modigliani and Miller (1961), but Rappaport (1986) was the first to identify and discuss it (named as 'value growth duration'). He was then followed by, among others, Mauboussin and Johnson (1997), Williams (2000), Rappaport and Mauboussin (2001), Wiggins and Ruefli (2002), Leibowitz (2004), Fritz (2008), Madden (2010), Mauboussin and Callahan (2013), Brilliant and Collins (2014), and Holland and Matthews (2017).

[5] As it will be noted later, the mainstream of the cost of capital theory does not pay explicit attention to the strategic and competitive variables.

[6] For a significant contribution to the technical aspects of the problem, see Buttignon (2015).

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be very different according to each life stage. More-over, growth is never free and is a risky adventure, because it requires investment (in R&D, advertising, customer retention, acquisitions, plants, etc.) and may induce policies (e.g. pricing, entering new markets and customer segments) that can cut the margins and prof-itability. In particular, many authors (e.g. Penman 2010, ch. 4; Holland and Matthews, 2017, ch. 10; Koller et al., 2015, ch. 5; Damodaran, 2017, ch. 7) have underlined the danger of overestimating the ben-efits of growth for value.[7] As a general warning, one must be aware that "it's difficult to create value with-out growing, but growth alone doesn't necessarily cre-ate value. It all depends on what type of growth a company achieves and what the returns on that growth are." (Koller et al., 2011, p. vii).

c) Cost of Capital

In measuring value, cost of capital is another insi-dious variable: a necessary ingredient but unfortu-nately a terribly blurry and elusive one. It is the Holy Grail that finance theorists have been seeking since the 1950s, and we must be grateful for their energy and intelligence as we now have data, ideas and models that are able to define it in a much less discretionary and rough way than before. Despite decades of work, we are still in the swamp, as is demonstrated by the strong debate still raging about many technical and theoretical issues concerning the most widely em-ployed models and approaches.

Since this article looks at value from the perspective of strategy, the basic questions are: must the strategic dimensions (e.g. business attractiveness, a company's competitive position, the strategy it intends to pursue) be taken in consideration in computing the cost of capital? If yes, do those models give them the right attention? If this is not the case, what can we do?

In a nutshell (sorry for oversimplifying the matter) two basic models are identifiable, the Market Ap-proach and the Fundamentalist Approach. It could be said that the first focuses on "what the market thinks and implicitly says", the second on "what the company is and what it intends to do".

The Market Approach is undoubtedly fascinating for its semblance of objectivity, which probably is the main reason for its current predominance. Starting from the assumption that for every company a precise cost of capital exists but is hidden in Mr. Market's[8]

mind, it works to discover that number by crunching the capital market data (basically the share prices of the listed companies) through more or less sophisti-cated statistical models. In its family many children compete to be the favorite, like CAPM, APT, Fama&-French's "three or five factors", the HOLT Discount Rate or the market-implied cost of capital, only to cite the most popular ones.

All these technical proposals share three basic pre-mises: first, market efficiency and rationality (the idea that market share prices are a good proxy for the in-trinsic value of listed companies); second, full portfolio diversification as a dominant characteristic of the ty-pical shareholder; third, the distinction between sys-tematic and specific (or idiosyncratic) risk, the former to be included and the latter excluded, thanks to the investor diversification, in computing the cost of capi-tal.

The Fundamentalist Approach makes the following criticisms of the Market Approach:

i. Mr. Market is not a totally trustworthy and ra-tional character, being strongly influenced by emo-tionality and by a (growing) speculative instinct. "There is much inefficiency in the market. When the price of a stock can be influenced by a herd on Wall Street with prices set at the margin by the most emotional or the greediest or the most depressed per-son, it is hard to argue that the market always prices rationally. In fact, market prices are frequently non-sensical." (W. Buffett, 2007, p. 546).

ii. Full diversification of the investors' portfolio looks like a rather abstract assumption, since is not sup-ported by statistical evidence, and today it is more difficult to realize than in the past. (Pratt and Grabow-ski, 2004, p. 210).

iii. Several researches show that the market does not take in account just the systematic but also the specific risk (especially with regard to the small companies), and that the weight of the latter is significantly grow-ing (Pratt and Grabowsky, 2004, ch. 15).

iv. The market approach has been developed with reference to public listed companies, so it hardly gives accountable solutions to the problem of measuring the cost of capital for an unlisted company or a single business unit of a diversified one (listed or not)[9].

v. The suggestion that the specific risk has to be included in the expected cash-flows or profits and ex-cluded from the discount rate is practically ambiguous.

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[7] "We can all agree that no company can grow so much that it becomes larger than the economy in which it operates. That may be stating the obvious, but I am surprised at how often I see this simple mathematical constraint violated in valuation. Moreover, no matter how successful you think a company will be in capturing market share, its eventual market share cannot exceed 100%. That obvious con-straint is also violated in many valuations and one reason for it is

our trust in past growth" (Damodaran, 2017, pp. 112-113).

[8] Mr. Market is the imaginary character invented by Graham (1949) to better explain the value investing philosophy.

[9] To solve this problem, you have to look for other companies in the same industry and/or other companies with similar profiles. By the way, the latter was one of the ideas developed by Al Rappaport and Carl Nobles in the 1980's as part of their Alcar initiative (Rappaport, 1986).

Which are the factors to be considered in each risk category? How can the specific risk factors be incorporated into the future expected results? The assumption is also conceptually questionable: is it right to apply the same cost of capital to an aggressive strategy and to a conservative one? or to strategies characterized by the same average expected profitability and by very different variances?[10]

vi. Last but not least, the language and the tools used by the market approach seem to convey the message that the cost of capital is a strictly financial concept, a number generated by capital markets that the company's management must accept (even without completely understanding what it means) but cannot influence. Is this right, or should it be more logical to consider the cost of capital as a significant lever for managers to create value?

In the world of finance, the Fundamentalist Approach is connected to the *value investing* philosophy, the school of thought founded by the legendary Benjamin Graham around the concept of the *intelligent investor* (Graham, 1949), which counts the similarly influential Warren Buffett among its most famous proponents. Rather than the perfectly diversified financial investor's perspective of the Market Approach, the Fundamentalist Approach looks at a company from the point of view of an *intrinsic* investor, who identifies as a steady owner of a business and not as a temporary holder of some shares. Consequently, in appreciating risk he cannot but take in consideration factors such as the competitive advantage, management competences and accountability, business prospects and strategic challenges, which are quite difficult to reconcile with the parameters statistically extracted from the market prices. "These investors do not discuss beta, the capital asset pricing model, or covariance in returns among securities. These are not subjects of any interest to them. In fact, most of them would have difficulty to define those terms." (Buffett, 2007, p. 540).

Obviously, this approach (by far less popular in practice, to tell the truth) is afflicted by a major weakness: rather than an objective measure to discover, cost of capital has to be conceived as an estimate coming from personal judgment. This changes the nature of the problem substantially: the basic question no longer

consists of finding the best statistical model (even if data and statistics are useful anyway), but rather of supporting an informed opinion. According to Fernandez (2015, p. 21), "a reasonable person should compute the beta of each company using common sense and good logic, experience and some business and financial knowledge about the company, its industry, national economies and so on". Buffett (quoted in Greenwald et al. 2001, p. 168) writes that this is the way to follow for being "approximately right instead of precisely wrong".

The practical solutions offered by the supporters of the Fundamentalist Approach can be classified in two groups: the accounting model and the qualitative model. Both are aimed at substituting β, the systematic risk coefficient of the CAPM, with a different one, respectively based on accounting evidences[11] and on scoreboards designed around a check-list of risk variables.[12]

Of course, the two have opposite strengths and weaknesses: the accounting model is based on hard data but is past-oriented, while the qualitative one looks at the future but is unavoidably subjective.

d) Multiples

A further trap comes from the siren call of multiples (e.g. P/E, EV/EBIT, etc.), due to their apparent ease, logic and statistical robustness. The search for the right multiple requires the identification of a perfect clone company for comparison (the industry multiples often employed may be non-sensical, given the quite different profiles of the companies competing in each industry). Another problem caused by using multiples is their basic assumption of defining value as a linear function of short-term economic results (e.g. Earnings, EBIT or EBITDA). Like any comfortable habit that easily degenerates into a dangerous vice, the widespread use of multiples can contribute to worsen the so-called *short termism* that is increasingly affecting managers' attitudes and consequently companies' behavior. It is evident: if value is defined as a multiple of current earnings then managers, to maximize it, may be tempted to reduce or at least to defer long-term-oriented expenses and investments (R&D, brand promotion, training, plant maintenance and updating, etc.).[13] Paradoxically, they may depress the economic

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[10] As it is well-known, a basic principle of finance theory states that the rational investor is risk-averse. As a consequence, two investments promising the same average return have to be discounted at different rates if the variances of their expected returns are different (the bigger the variance, the bigger the discount rate). So, in the author's opinion to consider the specific risk factors to appreciate both the expected return *and* the cost of capital is not a double-counting mistake.

[11] For example, the Duff & Phelps model is based on three measures of risk: the operating margin level, the variation in operating margin and the variation in return on equity (Pratt and Grabowski 2004, ch. 15). The Business Index Risk developed in the 1990's by SternStewart

was based on 18 accounting measures grouped in 4 risk factors: operating risk, profitability and growth, asset management, size and international diversity (Bennett Stewart, 1990, ch. 12).

[12] Fernandez (2015) mentions some proposals pertaining to this group, such as MASCOFLAPEC, MARTILLO, BAMIFLEX and CAMEL (a Goldman Sachs method). The acronyms come from the initials of the risk drivers identified by each method (for example M stands for Management, C for Country, P for Products, and so on).

[13] For example, a survey by Graham et al. (2005) shows that nearly four out of five companies would take value-decreasing decisions (like sacrificing investment projects with positive net present value, cutting

value just to show, thanks to multiples, that the value has increased. The apotheosis of short-termism!

To stimulate the debate around these critical issues, some ideas will be provided about two points: first, which algorithms to choose for estimating value; second, how to introduce the strategic variables into the algorithms itself. Before concluding, a short case will be presented to exemplify a possible way to proceed.

2. Choosing the evaluation algorithms

To measure value, assuming that it is the net present value of the future expected cash flows, finance theory and mathematics provide different well-known algorithms. For example, one can choose to discount the expected dividends, operating cash-flows or residual incomes. It can be said that all the calculation models are roughly equivalent: they can't avoid converging towards the same result *if* the numbers put into each of them are based on the same hypotheses concerning how the company's sales, margins, assets and financial leverage will evolve in the future. In other words, mathematically "all roads lead to Rome", since each algorithm can be traced back to any other. Consequently, the main problem does not consist of deciding which model to opt for, but of defining the pathway that those variables can be expected to follow.

However, the choice of the algorithm is very relevant from a practical point of view, since each calculation scheme may make it more or less easy to transform the main strategic variables into the parameters that it requires to quantify.

In this regard, two basic choices seem to be appropriate: first, to measure value according to the residual income scheme; second, to separate the operating variables from the ones connected to the company's financial structure.[14] Let us briefly consider why.

The residual income paradigm is the only one that explicitly requires the assessment of the competitive advantage period. In fact, it defines the economic value of shareholders' capital as

$V_E = E + \sum EP_i / (1 + c_E)^i$ with $1 \leq i \leq n$, [1]

where E stands for Equity, EP_i for Economic Profit in year i, and n for the duration of the competitive advantage period. Since the EP depends on the spread between the rate of return (ROE) and the cost of equity (c_E), written as $EP = [(ROE - c_E) \times E]$, and the spread is justifiable only assuming the existence

and persistence of a competitive advantage, then the EP can be expected to fade gradually with the decay of the competitive advantage itself.

The second choice - considering the operating flows independently from those connected to the company's financial leverage - is important to avoid confusing the value creation promised by the company's business strategy with that arising from its financial policy. This is a critical problem for diversified companies in particular, since their business units may present different competitive risk profiles and hence require the assignment of different cost of capital rates.

It's worth noting that an initial reassessment of the Balance Sheet and Income Statement may be required. Amendments may need to be made to correct the misrepresentations induced by the accounting principles, which can mask the actual size of the invested capital and the actual level of the economic performance. The main adjustments generally involve tangible and intangible fixed assets (e.g. accumulated depreciation, operating leases and acquired goodwill) and the treatment of forward-looking expenses (e.g. R&D, marketing, training).[15] To measure value it is important to recognize and exclude "the profits generated (or hidden) by accounting" (Penman 2010).

After adjusting the accounts, the next step is the evaluation of the company *as if it were unlevered*, that is, supposing that the net invested capital is totally covered by the equity, with a zero net financial position.

According to the residual income scheme, [1] transforms as follows:

$UV_{NIC} = NIC + \sum OEP_i / (1 + c_u)^i$ with $1 \leq i \leq n$ [2],

where:

UV_{NIC} = the economic value of net invested capital in the unlevered case;

c_u = the unlevered cost of capital;

OEP = the Operating Economic Profit, defined as $OEP = [ROI \times (1 - t) - c_u] \times NIC$, being ROI = Operating Profit/NIC, and t = tax rate;[16]

n = duration of the competitive advantage period.

If the last term in [2] is labeled as Operating Goodwill or OGW, then

$OGW = \sum OEP_i / (1 + c_u)^i = UV_{NIC} - NIC$ [3].

What does OGW mean? It measures the value creation coming from the business strategy and the competitive environment of a company, independently from its financial structure.

R&D and marketing expenses, or giving additional discounts to customers) to avoid missing quarterly earnings expectations or targets.

[14] The same suggestions have been proposed by Penman (2010).

[15] The problem has been abundantly explored in the literature. Amongst others, see Bennet Stewart (1991), Damodaran (2007), Penman (2010), Koller et al. (2015, third part) and Holland and Matthews

(2017).

[16] OEP can be expressed in another equivalent way by switching NIC for Sales, undoubtedly a more recognizable reference. In particular, it can be written as $OEP = Sales \times [ROS \times (1 - t) - c_u/T]$, where ROS = Operating Profit/Sales, and T = Sales/NIC.

OGW is the key number for estimating value. In the next paragraph a possible way to estimate it will be presented, using a company's strategic profile as a starting point.

To quantify the value of equity (V_E), a final step is needed to compute the effects of the company's financial leverage. Specifically, to pass from UV_{NIC} to V_E two further items must be considered: the Net Financial Position (NFP) has to be subtracted; and Financial Goodwill (FGW) - as the value creation coming from the financial leverage can be called – has to be added (or subtracted, if negative).

To sum up, the company's economic value (V_E) can be expressed in two equivalent ways:

$$V_E = (NIC + OGW) - (NFP - FGW) = UV_{NIC} - V_{NFP} \quad [4a], \text{ or}$$

$$V_E = (NIC - NFP) + (OGW + FGW) = E + (OGW + FGW) = E + TGW \quad [4b].$$

[4a] defines V_E as the economic value of the invested capital *if* the company were unlevered (UV_{NIC}) less the *economic value* of the net financial position or V_{NFP}, being $V_{NFP} = NFP - FGW$.

[4b] states the obvious, recalling that V_E corresponds to the Equity (E) increased by the Total Goodwill (TWG), but at the same time it specifies (which is less obvious) that the TGW can be segmented into two components, namely Operating Goodwill (OGW) and Financial Goodwill (FGW).

Ultimately, to estimate V_E, the two fundamental numbers that we need, after adjusting the accounts, are OGW and FGW. The former represents the value creation associated to the competitive profile of the company, and the latter to its financial structure (Figure 1).

Figure 1 - Economic Value Structure
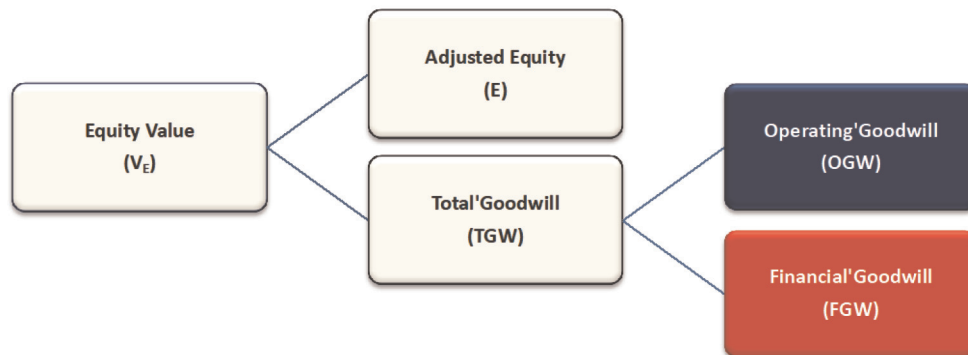
a) Measuring Operating Goodwill (OGW)

Assuming [3] above as the general formula for OGW, is it possible to transform it into a more manageable version? A possible suggestion is to return to the perpetuity, although in an adjusted version. Let us see how.

As it is well-known, according to the perpetuity scheme, [3] transforms as follows:

$$OGW = OEP_1 / (c_u - g) \quad [5],$$

where OEP_1 is the Operating Economic Profit of the first year to come, and g is the expected annual growth rate.

Previously, the perpetuity model was criticized for its implicit assumption of a competitive advantage persisting forever, in contradiction to strategy theory. The problem becomes even worse considering the necessity to identify a growth rate, g, also lasting forever, with the over-evaluation dangers noted before. However, the perpetuity model has a clear advantage in terms of its user-friendliness. So, can we find a ploy to resurrect it while at the same time bypassing its flaws?

According to the competitive advantage period concept, two consequences have to be accepted: first, at the end of that period the company cannot be expected to create further value (i.e. the spread between the rate of return and the cost of capital is supposed to equal zero)[17]; second, within the period the spread

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[17] It is worth noting that this assumption does not coincide with the one contained in the renowned work by Modigliani and Miller (1961), who were the first to conceive something similar to the competitive advantage period idea. Their model, followed by many authors, is based on two assumptions: first, that the company's capacity to invest in value-creating projects (i.e. with a positive spread between the rate of return and the cost of capital) will stop in the future at year T; second (and this is the questionable point), that the current activities, as well as the new investments until T, will continue to generate the actual rate of return forever. Conclusively, concerning the competitive advantage, the problem of perpetuity remains firmly in place.

itself will fade because of the decay of the competitive advantage. So, this raises two problems: the assessment of the competitive advantage period duration (this point will be discussed later, in paragraph 3.1); and the definition of a 'fade path' (for example, spread could be supposed to fade linearly or exponentially).

Regarding the 'fade path' problem, one possible solution could consist of changing the discount rate from $(c_u - g)$ to $(c_u - g + d)$, d being the average annual rate of decrease of the spread caused by the competitive advantage decay. Practically, assuming a competitive advantage period of n years, the rate of decay can be defined as $d = 1/n$. [18]

Based on this assumption, [3] can be transformed as follows:

$$OGW = OEP_1 / (c_u - g + d) \quad [6].$$

[6] keeps the perpetuity structure but involves a substantial change compared with [3], since the discount rate is burdened by the decay rate. Consequently, the estimate of value ends up being more conservative.

Without going into mathematical detail, it can be shown that [6] is roughly equivalent to the value that OGW would assume according to a spread fading to zero in n years at progressively increasing rates. This is a plausible guess, since the competitive advantage can reasonably be supposed to decay slowly in the first years, while accelerating towards the end of the period. [19]

As a further advantage, [6] gives the growth rate a more concrete reference, since g becomes the average rate of growth (regarding sales and net invested capital) that can be expected to occur along the competitive advantage period. [20]

b) Measuring Financial Goodwill (FGW)

In computing the value of OGW, the unlevered cost of capital c_u has to be used. But finance theory states that to create value for the shareholders the net operating profitability (i.e. the ROI after taxes) has to be higher than the *weighted average cost of capital*, the so-called WACC. In fact, the WACC may be considered as the 'price' that the company has to pay for satisfying

both its capital lenders and its shareholders. Since the WACC depends on the mix between debts and equity, it is easy to understand why the financial leverage can create (or destroy) shareholder value: without debts (i.e. in the unlevered case) to create value the rate of return must be greater than c_u; with debts (i.e. in the levered case) it has to be greater than the WACC. Consequently, financial leverage creates value if it lowers the 'price' to be paid by the invested capital, that is if WACC < c_u. Of course, FGW will be negative in the opposite case.

To estimate FGW, the easiest way is to obtain it indirectly, first computing the value of the Total Goodwill (TGW) and then deducting the amount of OGW from it. To measure the TGW, the most straightforward way consists of substituting the economic profit EP for the OEP and the cost of equity c_E for c_u in [3] or in [6] above, which will transform respectively as follows:

$$TGW = \sum EP_i / (1 + c_E)^i \quad [7]$$
$$TGW = EP_1 / (c_E + d - g) \quad [8] \, [21].$$

Of course, this procedure requires a preliminary assessment of the cost of equity capital, c_E. This point will be briefly discussed below (see paragraph 3.2).

3. Translating the words of strategy into the numbers of value

Having defined the algorithms (although with several questions remaining open to discussion), it is time for the key challenge: to identify a way to connect the strategists' words with the evaluators' formulas. Let us try!

3.1. The OGW drivers

As noted before, operating goodwill is at the core of the problem: first, because it depends totally on strategic variables; second, because generally it is the most important contributor to the total value creation. According to (6), the five drivers of OGW are:

- the ROI, namely the expected *normal* operating return on the invested capital;

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[18] The same solution has been proposed by Holland and Matthews (2017) and Holland (2018). Interestingly, these authors suggest to interpret the decay rate, d, as the probability that the competitive advantage abruptly disrupts. For example, a 20% decay rate (corresponding to a five years duration of the competitive advantage) would mean 20% probability that the spread jumps to zero in one year.

[19] A second (more conservative) solution could be to calculate OGW as the total of a finite geometric progression of *n* terms with a reason equal to: $[(1 + g) \times (1 - d) / (1 + c_u)]$. In this case it will be: OGW = $OEP_1 \times [1 - [(1 + g - d)/(1 + c_u)]^n] / (c_u + d - g)$. Why not (third possible solution) average the two? The debate is open.

[20] As a strategist, this author has doubts about the *size premium* that current practice uses to increase the cost of capital for smaller companies. It could be a case of statistical misinterpretation, since a large size

(above all if measured in terms of market value) could be considered as a plausible indication of a longer competitive advantage period. However, there exist large companies that have an ephemeral competitive advantage, as well as small companies that enjoy a more resistant one. Consequently, it would seem more correct, from a strategic point of view, to burden the discount rate according to the competitive advantage period rather than to size.

[21] Alternatively, it is possible to substitute the so-called Economic Value Added (EVA©) popularized by SternStewart for the OEP and the WACC for c_u in the same [3] and [6]. Recalling that EVA = (NOPAT – WACC x NIC), it will be respectively:
TGW = $\sum EVA_i / (1 + WACC)^i$, and TGW = $EVA_1 / (WACC + d - g)$.

- the tax rate, t;
- the unlevered cost of capital, c_u;
- the decay rate, d, connected to the length of the competitive advantage period;
- the annual growth rate, g, expected over the duration of the competitive advantage period.

To connect these drivers to the main strategic factors, an approach is outlined below which has been fine-tuned by testing it in a number of real cases.[22] It draws data and analytical tools from a wide array of managerial literature, but its nature remains strictly empirical. The underlying logic can be outlined as follows: first, identify the main strategic factors that influence each OGW driver; second,

evaluate each factor according to a conventional (but structured) scoring system; third, quantify each OGW driver according to the scores assigned to the different factors. The approach is founded on three basic pillars, respectively aimed at appreciating the *business quality*, *company competitiveness* and *operating risk*, of which the connections with each value creation driver are represented in Figure 2. These three pillars will be briefly analyzed to examine how they can help in identifying the value of the OGW drivers. After that, some observations will be made concerning the measure of the competitive advantage period, that has been rightly defined as "the neglected value driver" (Mauboussin, 1997).

Figure 2 - Drivers' of Operating Goodwill (OGW)
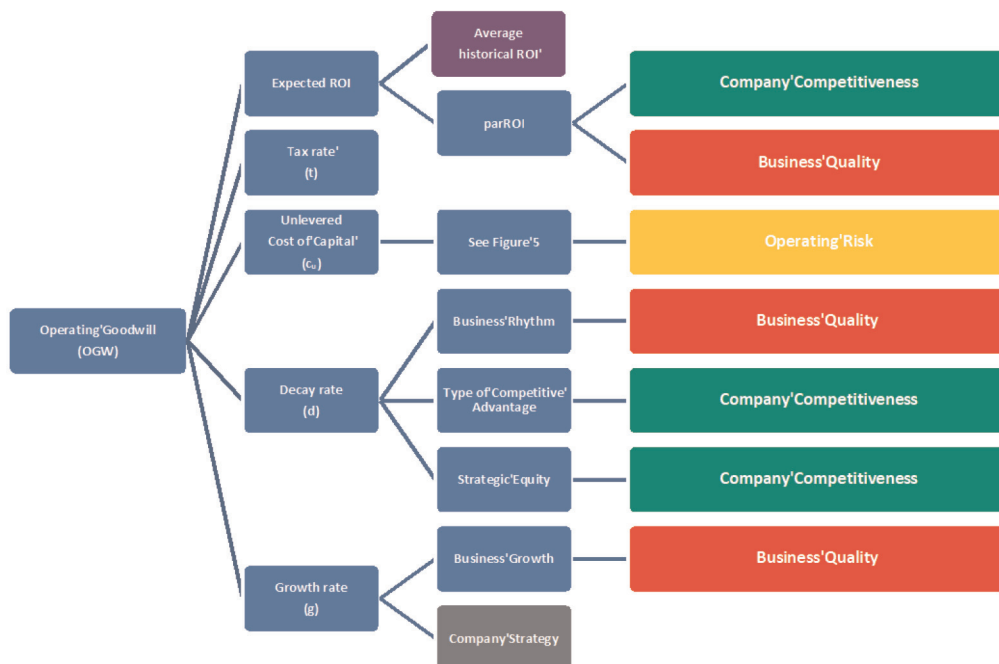
a) Business quality

To estimate OGW, it is important to consider the quality of the business in which a company operates, since it is the main driver of the size and duration of the value creation potential for all companies competing in that business. It can be usefully analyzed on the basis of two dimensions: Business Attractiveness and Business Rhythm.

Business Attractiveness can be appreciated according to three features: business growth prospects, competitive pressure intensity and the impact of potential disruption risks. Several well-known tools can help: for

example, the life cycle framework is basic for estimating business growth; the Five Forces model authored by Michael Porter[23] is quite effective for qualifying the competitive pressure intensity; PEST Analysis[24] is a quick way for identifying the most significant disruption risks. Beyond growth, which is obvious, business attractiveness will strongly influence both the expected ROI (as a rising tide lifts all boats, so a greater attractiveness pushes up the potential profitability for all competitors, while the opposite is true when the tide ebbs), and the c_u (other things being equal, a more attractive business is less risky, and vice-versa).

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[22] The approach outlined below has been copyrighted by the author with his colleague Marcello Bianchi under the label SCRYBA© - *The Strategic Crystal Ball*.
[23] The model identifies five main forces driving the intensity of competition in a business: rivalry among existing competitors, bargain-

ing power of buyers, bargaining power of suppliers, threats of new entrants, and threats of substitute products (Porter, 1985).
[24] The acronym stands for Political, Economic, Social and Technological. A more analytical variant of the PEST framework is PESTEL, which adds Environmental and Legal factors.

Business Rhythm analysis looks at the dynamism of the business, a critical factor to be considered for estimating the length of the competitive advantage period. In this regard, many authors have suggested making a distinction between slow-, standard- and fast-moving businesses according to elements such as the life cycle length of the products, price trends, innovation rate, entry and exit frequency, and volatility of competitive positions (Williams, 2000).

The practical suggestion is to synthesize the analysis of the two dimensions by assigning a 'Business Attractiveness Score' (BAS) and a 'Business Rhythm Score' (BRS).

b) Company competitiveness

Exploring the company's competitiveness is crucial for measuring value. It is a key reference for at least three value creation drivers: the expected ROI, since profitability can be quite different (even in the same business) according to the company's competitive strength; the cost of capital, c_u, since the stronger the competitive advantage, the lower the company's operating risk will be; and the decay rate, d, because the length of the competitive advantage period is related to the type of advantage and the company's competitive strength. An effective way to proceed is to match two kinds of information: first, a careful analysis of the operating return actually achieved by the company in the past; second, a detailed investigation of the company's business model, as briefly outlined in Box B.[25]

To be more precise, the expected ROI should emerge from comparing the average historical ROI (the one previously realized) with the company's *parROI*, a term borrowed from golf[26] to mean the ROI level that a company can reasonably be expected to achieve according to its competitiveness and business attractiveness.

To estimate the parROI (an exercise the author strongly recommends to make management more conscious about the company's strategic profile and its actual competitive strength), two steps are needed: first, to assign a 'Company Competitiveness Score' (CCS) according to the guidelines concisely illustrated in Box B; second, to transpose that score to a parROI format matching it with the Business Attractiveness Score defined above (an example is shortly presented in Box C and pictured in Figure 4).

If relatively close to parROI, the historical ROI can be assumed to be a reliable proxy for the future expected ROI.[27] If the two differ significantly, a deeper analysis is needed to understand if the misalignment is related to an abnormal past performance (e.g. because of some extraordinary conditions) or to an incorrect evaluation of the company's competitive strength.

Box B - Analyzing and evaluating the business model^

Probably the most critical step of the whole process, the analysis and evaluation of the company's competitiveness requires a clear understanding and a rigorous examination of the so-called *business model*. In its essence, the business model is a description of how a company intends to create value for customers and shareholders, and it can be summarized in four main ingredients:

- the *customer value proposition*, namely the distinctive features of the company's offer (price, product, service and image) aimed at enticing customers;
- the *type of competitive advantage* (cost, differentiation, scale) on which the company is focused, which establishes the relative weights of the different profit levers (efficiency, premium-price, market share);
- the *distinctive competences* sustaining that advantage, that is the key processes in which the company has to excel to perform better than the competitors;
- finally, the company's *strategic equity*, which means the quality and durability of key resources vis-à-vis its competitors. As depicted in Figure 3, to sustain its value creation capability (the roof of the temple) over time, a company needs a set of robust competences (the columns), which are rooted in a consistent wealth of strategic equity (the temple's foundations). The strategic equity can be classified into seven categories (the acronym PROFITS helps in memorizing them):
- *Professional capital* (the quality and potential of the human resources in terms of experiences, attitudes, knowledge, etc.);
- *Relational capital* (the robustness, depth and exclusivity of the company's relationships with its main stakeholders, such as customers, suppliers, strategic partners, regulators, local communities, etc.);
- *Organizational capital* (consistency of organizational structure and culture, quality of procedures and management systems, database depth, etc.);
- *Financial capital* (ease of access to capital markets, financial rating, etc.);
- *Immaterial capital* (value of protectable assets like brands, patents, trade secrets, etc.);
- *Tangible capital* (convenience of the company's locations, technological level of plant and laboratories, etc.);
- *Social capital* (quality of externalities, such as public infrastructures, social context, and regulatory and bureaucratic norms).
Assigning both a score and a weight to each strategic equity category allows a 'Company Competitiveness Score' (CCS) to be calculated as the weighted average of those scores.
^ The content of the Box is adapted from Donna (2018).

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[25] According to Magretta (2002) and Teece (2010), "Business models are stories that explains how an enterprise works to deliver value to customers, entice customers to pay for value and convert those payments to profits".

[26] For a specific golfer, *par is the number of shots that he or she should employ for a course round, given his or her handicap level (depending in turn* *from his or her past performances) and the degree of difficulty of the course itself.*

[27] Of course, to estimate the Terminal Value of OGW, parROI - defined according to the competitive position that the company is expected to achieve at the end of the business plan - has to be matched with the terminal ROI predicted in the plan itself.

Figure 3 - The Business Model Template
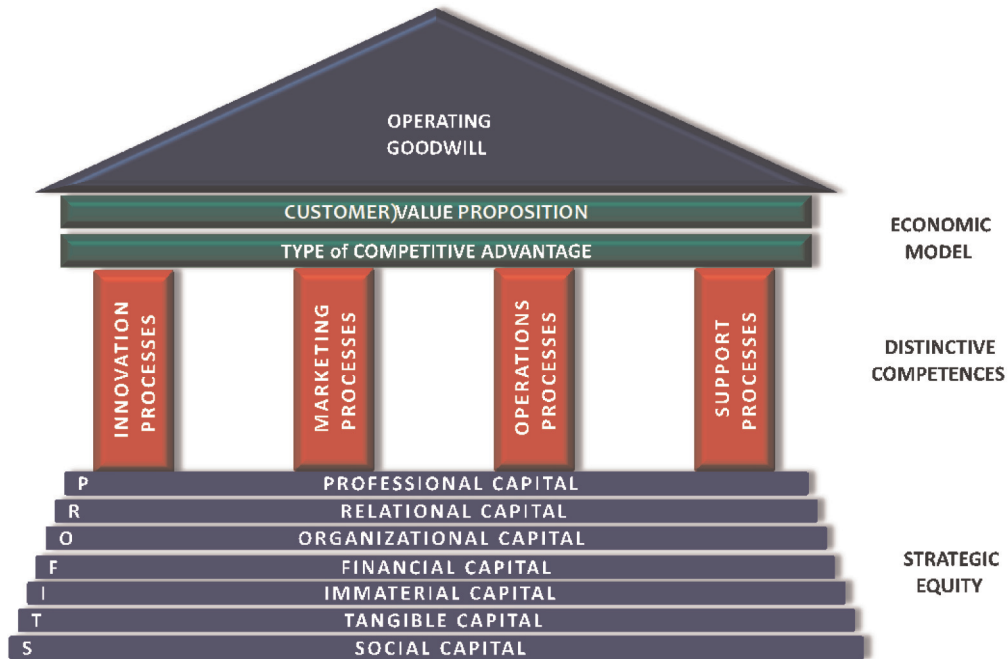
Box C - Estimating parROI: a simplified method

To estimate a company's parROI, beside the Business Attractiveness Score (BAS) and the Company's Competitiveness Score (CCS) mentioned in the text, a third element is needed, namely the mathematical function connecting parROI with the two. Here is a possible (simplified) method. Assuming a measurement of both BAS and CCS on a scale from 1 to 10, 6 being the average condition, the first task consists of defining the ROI that should correspond to a '6&6' situation (that is, average business attractiveness for BAS and competitive parity for CCS). To do that, you can refer to the available databases and choose the one you think is the most suitable for your company. The second step is to define how the ROI level can be expected to change according to increases (decreases) of BAS and CCS. To establish the function for a specific company, you can look at some statistics concerning the industry or the segment of your interest (or at specific companies' data), in order to identify a possible range of values that ROI has assumed. A possible relationship connecting BAS, CCS and parROI is pictured in Figure 4, where the parROI curve is plotted according to the two following functions:

$parROI = 10\% \times \alpha + 5\% \times (CCS - 6)^2$ if CCS > 6

$parROI = 10\% \times \alpha + 5\% \times (CCS - 6)^2$ if CCS < 6,

where 10% is assumed as a significant value for the average ROI in the long-term[^], and α is a coefficient associated to the BAS[^^]. To make an example, assuming $\alpha = 1,4$ (corresponding to BAS = 7), and CCS = 7,5, it will be:

$parROI = 10\% \times 1,4 + 5\% \times (7,5 - 6)^2 \cong 25\%$.

[^] By the way, 10% is the average long-term ROI identified by a recent McKinsey's research (Bradley et al., 2018).

[^^] For example, α can be supposed to extend from a minimum of 0,25 (in case of BAS = 2) to a maximum of 4 (if BAS = 10), 1 being its value for an average attractiveness (BAS = 6). According to these assumptions, the math function for α is: $\alpha = 2^{(BAC - 6)/2}$.

Figure 4 - Relating parROI, Business Attractiveness (BAS) and Company Competitiveness (CCS): an example
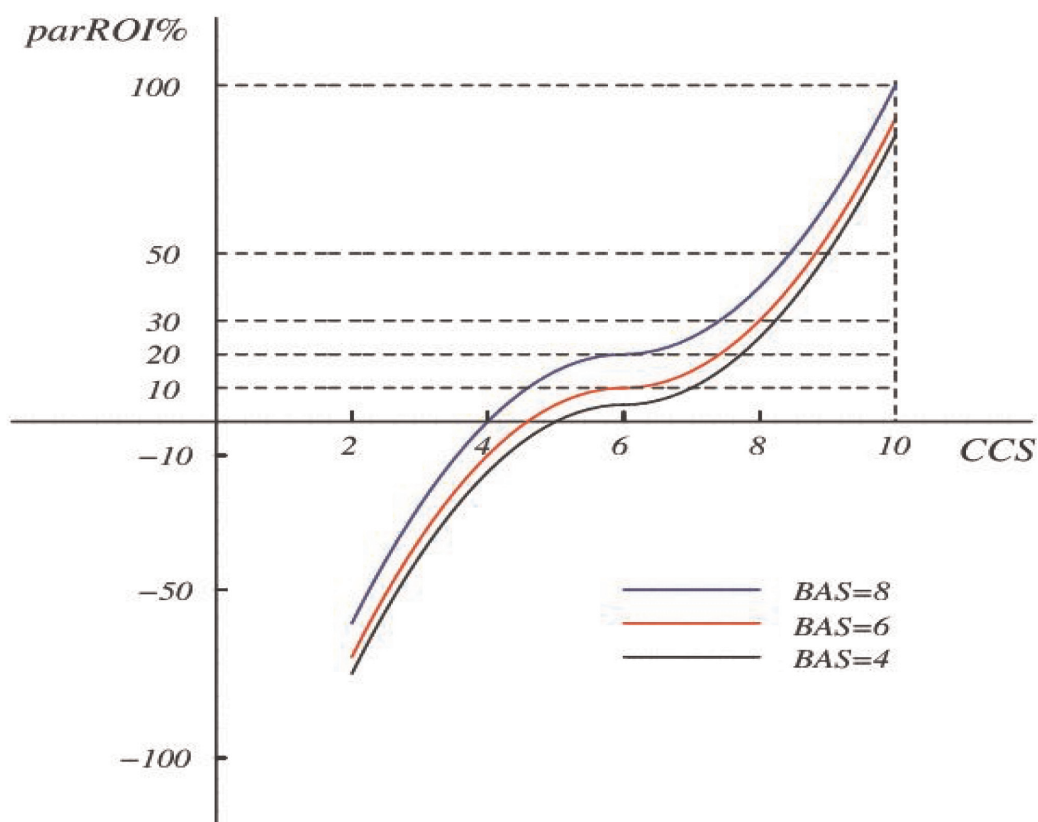
c) *Operating risk*

Concerning the cost of capital, the contrast between the Market and the Fundamentalist Approaches has already been noted. The proposal here is not to choose one of the two and reject the other, but instead to consider both and compare them. The reason is simple: two eyes are better than one, as the old adage says. If the cost of capital computed according to the Market Approach[28] gives a similar value to the one calculated by the Fundamentalist model, the evaluator will be reassured. Otherwise, if the two measures diverge substantially, the evaluator will need to investigate why, and to revisit both of them to try to close the gap.

To support the estimate of the unlevered cost of capital, c_u, according to the Fundamentalist Approach (in the qualitative version), Figure 5 depicts a possible framework. It is aimed at calculating an *operating risk indicator* ρ based on strategically significant factors. Conceptually, ρ is the fundamental equivalent to the β *unlevered* (β_u) coefficient of the CAPM model. Referring to the most commonly used expression of the cost of capital, it will be $c_u = r_f + \rho \times p_{om}$, where r_f is the risk-free rate and p_{om} the *operating* market risk premium.[29]

Like β_u, ρ is a measure of the company's relative degree of operating risk.[30] But, differently from β_u, it is assessed on the basis of the profiles of the business

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[28] Regarding the choice of the model (CAPM, APT, F&F and so on), this author admits a preference for the market-implied cost of capital method (Bini, 2018).

[29] A slight difference must be noted from the traditional CAPM expression of cost of capital, which includes the financial risk connected to leverage both in the β coefficient and in the market premium p_m. Working on the unlevered case, as the text suggests, those references have to be modified appropriately. In particular, there are two equivalent options: a) to keep the ρ barycenter at 1, while deducting the financial risk component from the market risk premium; b) to keep the market risk premium as it is, while lowering the ρ barycenter to remove the financial risk component from it. Since finance authors

generally argue that the financial risk component may be estimated at 15-20% of the total market risk, one can choose alternatively: a) to establish 1 as the barycenter of the unlevered risk coefficient ρ, at the same time lowering the market risk premium by 15-20% to substitute it with its unlevered equivalent (the way suggested here); b) to keep the market premium unchanged, while reducing the ρ barycenter to 0,80-0,85 (by following this option, ρ would perfectly coincide with β unlevered, β_u, mentioned in any finance textbook).

[30] This means that ρ will be respectively greater than, equal to or lower than 1 if the company's operating risk is considered to be respectively greater than, equal to or lower than a sort of normal or average unlevered company.

and of the company. Three operating risk factors are identified: the *business* risk, related to the competitive environment; the *strategic* risk, connected to a company's strategy and competitive strength; and the *structural* risk, associated with the sensitivity of a company's results to a change of context. For each factor one main driver is identified (respectively the business attractiveness, the company's competitiveness and the capital intensity, highlighted in Figure 5 in the green boxes), which is complemented by four minor drivers

(listed in Figure 5 in the red boxes). To calculate ρ three steps are required: first, a risk score has to be assigned to each driver; second, an average risk score is computed for each of the three factors, firstly by averaging the risk scores of the minor drivers, and then furtherly averaging the resulting score with the one assigned to the main driver; third, ρ is quantified as the average of the resulting risk scores for each of the three factors.[31]

Figure 5 - Drivers of unlevered cost of capital
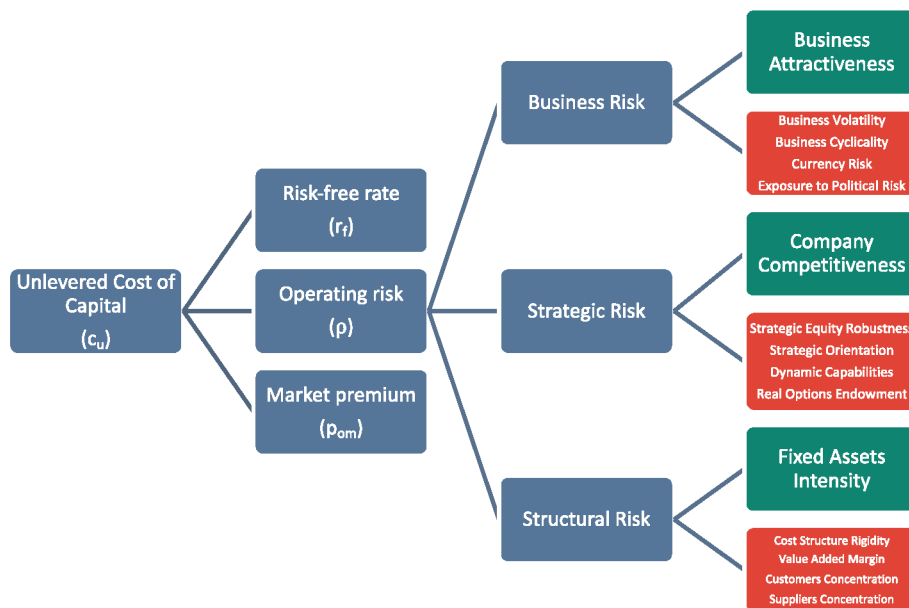
d) The Competitive Advantage Period (CAP)

As noted in the first paragraph, the competitive advantage period (CAP) is a tricky question in estimating value. A possible way to integrate it in the valuation algorithm has been proposed above (anyway, it is an open question, as it has been remarked[32]), but the problem remains to identify some references to give it a reliable quantitative dimension. Once again, the state-of-the-art research and practice don't offer definitive answers, so one has to look for empirical solutions

founded on a coherent logic and the (limited) statistical evidence available.

A two-step procedure can be employed that starts with the assessment of an average CAP extension, based on statistics and general practices, and then calibrate it according to the factors that can be retained as the CAP main influencers.

The available data suggests that CAP can be averaged over a range between 7 and 10 years (in the author's opinion, 8 can be considered as a reasonable choice)[33].

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[31] A practical suggestion can be to identify five levels of risk for each driver, and to assign to each level the following scores: 0,25 to level 1 (low risk); 0,50 to level 2 (medium-low risk); 1 to level 3 (medium risk); 2 to level 4 (medium-high risk); and 4 to level 5 (high risk). According to this scale, the geometric average scheme is better than the arithmetic one for averaging the scores.

[32] Among others, two relevant problems are neglected here. The first: has anything to be changed to measure value in case of a competitive *disadvantage*? The second: if value is calculated by adding a (discounted) terminal value to the value associated to a multi-year business

plan, which has to be the time reference for CAP? In other words, has CAP to be considered only in computing the terminal value, or must it contain even the horizon covered by the business plan?

[33] A significant research on the CAP extension is the one accomplished by Fritz (2008), given the richness of the database used, which has covered thousands of companies of all the major countries. Referring to two performance measures (ROA and Tobin's Q), the average CAP is identified as comprised between 7 and 8 years, with negligible differences among countries and industries, as well as between the two performance indicators.

To distance a specific company CAP from the average, at least three factors have to be considered:

i. the company's competitive strength (for example, one can refer to the Company Competitiveness Score noted above), since a stronger strategic equity is undoubtedly the best possible insurance against the competitive advantage decay;

ii. the type of competitive advantage the company is relying on, since the vulnerability of the different types looks quite different. In particular, as argued by Greenwald and Kahn (2005), the cost advantage is reputed to be the easiest to imitate and neutralize, while the scale advantage seems to be the most enduring, and the price or differentiation advantage stands in the middle position; [34]

iii. the Business Rhythm mentioned above, since the CAP extension is affected by the speed of change characterizing a specific business.

According to these factors, CAP can be appropriately shortened (to zero) or expanded (up to thirty years). [35]

Of course, CAP extension cannot exceed the useful life of specific assets that are considered as absolutely crucial sources of competitive advantage (e.g. expiry dates of specific patents or licenses, age of key-persons difficult to replace, etc.).

3.2. The FGW drivers

Switching to Financial Goodwill (FGW), usually a minor contributor to Total Goodwill, one more driver has to be considered: the company's financial risk. As finance theory teaches, the substitution of equity capital with financial debts is a double-edged sword: on one side, debt is a cheaper resource than equity; on the other, debt pushes up both the cost of interest and the cost of equity because of the higher risk burden carried by both moneylenders and shareholders. Ultimately, the financial strategic challenge consists of finding the debt/equity mix able to minimize the weighted average cost of capital. [36]

According to these premises, an algorithm is needed to identify the premium to be added to the unlevered cost, c_u, to compensate the shareholders for the risk associated with the company's financial leverage. Without raking over the coals of an argument that has been covered exhaustively in finance literature, the suggestion here is to appreciate the financial risk premium p_F (added to c_u to obtain c_E) as follows:

$$p_F = (c_u - r_f) \times L,$$

where L is financial leverage (after taxes), measured as $L = NFP \times (1 - t)/V_E.$

This means assuming that, for $L = 0$, the total risk premium is the same as the operating risk (as it is obvious), while it doubles for $L = 1$ (i.e. if the amount of financial debts after taxes equals the economic value of equity).

As theorists and practitioners know, an iterative process has to be put in place to compute c_E and V_E. The reason is the following: to compute the financial risk premium, a preliminary estimate of V_E is needed; at the same time, to compute V_E, a preliminary estimate of c_E is required. Practice proves that, accepting minimal round-off margins, the process is quite short and easy.

The story is at its end, but it may be worthwhile to briefly recap. To do so concretely, a real case is summarized in Box D.

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[34] This is one of the reasons why this author suggests to identify scale as a distinct kind of advantage, differently from the Porter's model, which considers scale just as one of the drivers of the cost advantage. (Donna, 2018).

[35] Two examples of CAP estimate models are worthy to be recalled. The Morningstar's 'moat model' classifies the companies owning a significant competitive advantage into three categories, to which it assigns a CAP of 10, 20 or 30 years according to factors such as intangible assets (brands, patents and regulatory licenses), economies of scale, switching costs, network effects and entry barriers (Brilliant and Collins, 2014, chapters 2 and 3). The HOLT approach of Credit Suisse defines the fade rate for a listed company by estimating the Market-Implied-Competitive-Advantage-Period (MICAP), that is the CAP extension implied in the share price. Relatively to the American listed companies, MICAP extension goes from 0 to 20 years (very few companies overcome this horizon), 10 years being the average (Holland and Matthews, 2017).

[36] As it is well known, the WACC is the weighted average between the cost of debt after taxes and the cost of equity. It is important to remember that the weights have to be computed according to the economic value of both debts and equity, differently from the common but incorrect habit of basing them on their financial or accounting evidence.

Box D - A real case^

XY is an Italian privately owned company, working in the textile industry. A medium-sized company (sales around €130m), it enjoys a differentiation advantage, and its main profit lever consists of a significant premium price. The net invested capital (€84m) is covered by equity for €62m and by financial debts for €22m. The average ROI realized in the last years and parROI (based on a Business Attractiveness Score equal to 6,25, and a Company Competitiveness Score estimated at 7) converge around 15,5%, which justifies an expected ROI after taxes of 11.5%. This means a spread of 5% over the unlevered cost of capital, estimated at 6.5%.^^

The competitive advantage period is established as 12 years (the business is considered to be relatively slow moving), corresponding to a decay rate of 1/12 = 8.3%. Finally, 4% is the expected growth rate for the competitive advantage period horizon.

According to [6] and to these inputs, the Operating Goodwill and the Unlevered Value of net invested capital will be as follows:

OGW = 84 x (11.5% - 6.5%) / (6.5% + 8.33% - 4%) = 4.2 / 10.83% = 38,8 m

UV_{NIC} = 84 + 38,8 = 122.8 m.

Taking into account the company's financial leverage, the cost of equity is estimated as 7.19%, corresponding to a financial risk premium of 0.69%.^^^

Assuming a net interest cost rate of 2%, the Net Profit and Economic Profit can be derived as follows:

NP = 11.5% x 84 – 2% x 22 = 9.66 – 0.44 = 9.22 m

EP = 9.22 – 7.19% x 62 = 9.22 – 4.46 = 4.76 m.

Consequently, the Total Goodwill and Financial Goodwill will be:

TGW = 4.76 / (7.19% + 8.33% - 4%) = 41.3 m

FGW = 41.3 – 38.8 = 2.5 m.

Ultimately, the company's economic value V_E amounts to (62 + 41.3) = 103.3 m, consisting of:
- adjusted Equity (the shareholders' invested capital) for €62 m;
- Operating Goodwill (the value creation resulting from the company's strategic profile) for €38.8 m;
- Financial Goodwill (the value creation associated with the company's financial leverage) for €2.5 m.

These values can be translated into some of the usual multiples as follows:
- M/B (Market/Book value) = 103.3 / 62 = 1.67;
- P/E (Price/Earnings) = 103.3 / 9,22 = 11.2;
- EV/NOP (Enterprise Value/Net Operating Profit) = (84 + 41.3) / (84 x 11.5%) = 13.

Now, but only now, it is worthwhile comparing the company's multiples with some standards based on stock exchange statistics.

^ The analysis is based on data and information collected from outside the company.

^^ The unlevered cost of capital has been computed by assuming a 2% risk-free rate, a 5% unlevered market risk premium (defined by subtracting 1% from the total market risk premium, assumed to be 6%) and an operating risk ρ equal to 0.9 (meaning an operating risk slightly below average, justified by mid-level business risk, medium-low strategic risk, and mid-level structural risk). According to these assumptions, it is: c_u= 2% + 0.9 x 5% = 6.5%.

^^^ To compute the financial risk premium, p_F, one has to multiply the operating market risk premium, p_{om}, by the leverage (after taxes). Since leverage is L = [NFP x (1 – t) / V_E], in this case it will be L = [22 x (1 – 0.28) / 103.3] = 0.153. Thus, conclusively, p_F= (4.5% x 0.153) = 0.69%.

4. Concluding remarks

Before concluding, three messages are worthy of being underlined. They concern the basic question of how to connect judgment and numbers, a new habit to be strongly recommended, and, lastly, the key role CFOs should play to promote an 'economic value culture'.

a) Supporting judgment with numbers, supporting numbers with judgment

As business appraisers know quite well, estimating economic value is firstly a question of judgment.

Even the market value of listed companies can be said to be just conjecture. For instance, it is strongly influenced by external factors and speculative behaviors that make it very volatile and can push it very far, at least temporarily, from its fair value.

In the same way as a figure-skating judge gives a subjective score for artistic merit, measuring a company's economic value is above all an exercise of logic, experience and wisdom.

However, subjectivity does not mean arbitrary discretion. Just as the figure-skating judge has to follow specific guidelines and criteria established to make their assessment as accountable as possible, in estimating value it is fundamental to rely on a framework able to keep the process on a consistent path. To be up to the job, such a framework needs to be tightly connected to the paradigms of strategy, because the company's strategy and the competitive dynamics are the main drivers that will generate its economic performance in the future. Regarding this, some ideas have been identified to help in performing the task and in mitigating some weaknesses of current practices.

The basic problem, as the article argues, consists of promoting a reliable link between the narratives of strategy and the numbers of value. This is the real goal of the indicators (such as parROI or ρ) and of the tools (e.g. check-lists and scoring systems) that have been suggested above. Although they cannot provide objective measures, they are still useful references to check the numbers that the value exercise requires, from the expected ROI and growth rate promised by a business plan to the cost of capital generated by questionable statistics.

b) Taking a periodical 'value selfie'

A strong recommendation concerns adopting a practice of taking a periodical 'value selfie', that is an internal assessment of the company's value. Usually, the measurement of value involves professional experts coming from outside, on the implicit assumption that the task requires some expertise that a company does not have internally. Presumably this is a legacy of the past, when a value estimate was a figure required only in exceptional circumstances (e.g. in dealing with rare matters like mergers, acquisitions, IPOs and so on),

with the involvement of professional intermediaries and/or independent appraisers.

Unquestionably, being faced with an occasional situation, it is better to hire a specialized professional than equipping the company with the same competences and tools internally.

However, the situation has changed substantially: first, because once extraordinary events are now much more frequent; second, because value is needed to substantially improve the quality of the strategic planning process; third, because value should enter explicitly in the performance evaluation metrics, as Box E concisely shows, possibly helping to contrast the dangerously myopic attitude pushed by measures based on short-term results (e.g. ROI, ROE, EVA, etc.).

The conclusion is that companies must learn to self-evaluate in a systematic way, developing specific competences internally and tailoring the general evaluation models to fit their strategic profiles. If you think about it, it is obvious: assuming that a deep understanding of the strategy and of its risks is a necessary requirement to measure a company's value, who is more suited to accomplish this task than someone who knows the company as an insider?

Box E - Measuring economic performance according to value

Finance theory, as well as the economic common sense, postulates that the most significant measure of a company's economic performance can be identified in the total shareholder income (TSI), usually expressed as the total of dividends received by the shareholders and the increase (decrease) of the shareholder equity value, that is:

$TSI = (DIV + \Delta V_E)$ (a)

This way to define TSI is financially correct but poor from an economic point of view, since neither dividends nor the change of equity value constitute meaningful signals about the value creation that the company has realized.

But another way to break down TSI exists (even if forgotten by finance texts) and is worth consideration. Let's see it.

By definition, the dividends are the part of the Net Profit (NP) which the company has not retained, so that:

$DIV = NP - \Delta E$ (b)

Since the value of equity is the total of Equity and Total Goodwill (i.e. $V_E = E + TGW$), its change in a year (ΔV_E) will equal the change in the equity ΔE increased by the change in the total goodwill ΔTGW, that is

$\Delta V_E = \Delta E + \Delta TGW$ (c).

Now, by substituting (b) and (c) into (a), we can find that $TSI = (NP - \Delta E) + (\Delta E + \Delta TGW) = NP + \Delta TGW$.

Split in this way, TSI comes to be the sum of two economic measures: the first, NP, enables to appreciate how the company has performed in managing its current activities; the second, ΔTGW, how it has worked for the future.

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c) CFOs as economic value tutors

In promoting the value selfie practice, a crucial role needs to be played by CFOs, who should evolve from 'income and asset guardians' into 'economic value tutors'. For listed companies in particular, this change in attitude will greatly improve the dialogue with the financial market, by providing financial investors with the strategic information they need (and complain they are not currently getting).[37] For private companies it would also be an important development, as currently the operating managers are not used to perceiving value as a concrete and measurable reference.

In both cases, the CFO's role in building and diffusing an 'economic value culture' within a company is essential. As it has been underlined, a common understanding of the connections between the narratives of strategy and the numbers of value is a vital ingredient of this new culture.

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[37] The necessity of a common framework for CFOs and strategists to establish a more effective dialogue with the financial market was firstly underlined by Rappaport (1992). A recent survey from McKinsey shows that "the intrinsic investors just need to be helped to understand the business and the strategy. They want to know what a company's competitive advantages are and how its strategy builds on those advantages. They want to know what external and competitive forces a company faces. And they want to know what concrete actions the company is taking to realize its aspirations, including efforts to ensure it has the talent to succeed." (Darr and Koller 2017, p. 1).

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