

Business Valuation: Down with DCF?

Bruno Husson* and Henri Philippe**

Among the business valuation methods, the discounted cash flow (DCF) method has gotten a bad rap. At best, it is criticised for being based on sand, i.e. based on forecast data that are uncertain in principle. At worst, it is suspected of serving the desired result by adjusting one or the other components of the method, namely future cash flows and discount rates. In short, the DCF method is inherently subjective and easily manipulated.

In this chorus of critics, there is a diverse panel. Thus, the *International Private Equity and Venture Capital Valuation Guidelines* (IPEV) guide¹, which aims to enact the principles of valuation of investment fund portfolios, rather amusingly echoes the guide of the *Direction Générale des Impôts* [General Tax Office]². Going against these criticisms, the purpose of our comments is to show that the DCF method is certainly subjective, but no more or less so than other methods, and that it is actually based on forecast data and assumptions subject to manipulation, but just like other methods³. At least, the DCF method explicitly takes responsibility for it! This is even its main benefit; combined with the expertise of the valuer, this benefit makes it possible to avoid overly high or low estimates based on data observed only on financial markets.

The key method of the intrinsic approach of valuation

In terms of financial valuation, remember that there are two main approaches for classifying the various existing methods.

- The analogical approach of valuation makes comparisons based on target prices observed on “comparable” assets with the evaluated asset, whether these assets are listed on a stock exchange (“market comparables” method) or they were recently traded over the counter (“comparable transactions” method). Often perceived as easy to use, the two methods under this first valuation approach are actually particularly difficult to implement, since the concept of “comparability” is often subtle or even elusive because it does not refer at all to a single industry sector.
- The intrinsic approach of valuation considers the appraised asset in isolation. The key method of this approach is precisely the DCF method, which has become indispensable for many valuers. According to this method, the value of a business activity is assessed based on cash flows it is likely to generate in the future. However, there are a variety of methods within this second approach: the asset-based method (focused on the concepts of value in use or net asset value), the traditional method of annuity – shortened or perpetual – of goodwill (more

* Associate at Accuracy and Adjunct professor of the HEC Group.

** Vice President at Accuracy and lecturer at Université Paris Dauphine.

¹ This guide clearly places the DCF method at the bottom of the hierarchy of methods (page 22): “Because of its inherent reliance on substantial subjective judgments, the Valuer should be extremely cautious of using this methodology as the main basis of estimating Fair Value for Investments which include an equity element. The methodology will often be useful as a sense-check of values produced using other methodologies.”

² Entitled “L'évaluation des entreprises et des titres de sociétés” [Valuation of businesses and corporate securities], this guide specifies in particular (page 13): “the administration may not directly implement a method based on discounting from future flows, since it cannot establish growth forecasts itself. In addition, the law provides for the generating cause of each tax in such a way that it is set based on the elements existing on this date.”

³ The purpose of this article is therefore not to address “best practices” in business valuation, whether it involves the DCF method or methods under the analogical approach defined below.

commonly known today as the “controlled simulation” method of the EVA[®], which stands for Economic Value Added), the adjusted present value (APV) method, which aims to explain the impact of financing arrangements on the value of an activity, the free cash flow method (a jazzed up version of dividend discounting models), etc. These various methods actually cover the special cases of the DCF method, which differ from each other depending on the nature of the flows taken into account (economic flows integrating or not integrating the tax savings on finance charges or cash flows available to shareholders), the considered perspective (continuity of operations or termination of activity), and the potential appreciation taken into account (level and growth in return on capital invested).

Through the criticism against the DCF method, it is therefore the intrinsic approach of valuation in general that is rejected in favour of the two methods under the analogical approach, supposedly more objective and less manipulable.

A method no more or less subjective than others

Let us now return to the first of the two criticisms against the DCF method, namely its subjective nature. As noted above, these criticisms are based on the difficulties raised by the determination of two key components of the method: the future cash flows and the discount rate (commonly referred to by the acronym *WACC*). Due to the rather technical nature of the discussions related to this last component⁴, we prefer to focus our comments on the determination of cash flows.

In the usual manners of implementing the DCF method, cash flows cover three distinct forecast horizons: (i) short-term flows, which are generally described in the business plan developed by the management of the appraised entity, (ii) medium-term flows, which result from an extrapolation of previous flows, (iii) long-term flows in the form of a terminal value assumed to be the discounted sum of expected flows beyond the period of explicit forecasts.

By design, future cash flows are based on data that are “subjective” in more ways than one. First of all, the business plan reflects the management’s view as at the date of the valuation. Then, over the period of extrapolation of the flows that follows, it is the view of the valuer (possibly shared with the management) that lies in the development of business activity, until the calculation horizon of the terminal value, i.e. the date on which the business activity, which has matured, is assumed to have reached its “cruising speed”. Finally, it is again the point of view of the valuer that prevails for the formulation of the two simplifying assumptions underlying the amount of the terminal value, namely the normative flow likely to be generated by the activity and the rate of perpetual growth of this flow. Cash flows are therefore based on two sources of subjectivity: that of the management who constructs the business plan and that of the valuers themselves who extrapolate this business plan and determine the terminal value based on their own perception of the business activity (development potential, barriers to entry, etc.).

Faced with this double subjectivity of the DCF method, the supporters of the analogical approach oppose the “objectivity” of their methods (market comparables and comparable transactions). In particular, they argue that these methods can be based on known, certified results to which is applied a valuation multiple, itself objective, since it appears from observation

⁴ In particular, see the brief summary of the controversy on the subject that we proposed in an article with the deliberately provocative title: « *Le WACC est-il le coût du capital ?* » [“Is WACC the cost of capital?”] (Echanges, no. 250, January 2008).

of data seen on the financial market (stock price or transaction price). This view of the analogical approach is particularly naive.

Even when it is based on certified historical results, the average multiple “observed” on the market is actually the result of the subjective process carried out by the valuer. The valuer selects a sample of companies whose business portfolio is considered comparable to that of appraised company, selects a financial aggregate upon which the multiple is based, makes some adjustments, as appropriate, to standardise these aggregates, etc. These are all steps in which the subjectivity of the valuer’s approach does not explicitly appear but is still present.

Moreover, should the valuation necessarily be based on the items known and certified as at the valuation date? Adopting this position means forgetting that the value of an asset is still based on cash flows that this asset is likely to generate in the future. In other words, performing a valuation on the basis of a multiple based on past results still means projecting into the future. Thus, when a multiple is applied to the operating profit of the most recently closed fiscal year, it is implicitly considered that this profit will be repeated forever with some growth (or decline). As another example, considering that the value of a business activity corresponds to its book value (or a *Price to Book Ratio* - *PBR* - equal to 1) means assuming that future returns generated on the capital used in the activity will always be strictly equal to the return required by the financial backers (or cost of capital). And the list of examples can be extended interminably, with a given multiple able to reflect a wide variety of development scenarios.

In short, rejecting the DCF method because it is subjective is a naive stance, which implicitly assumes that there are more objective methods for valuing a business. However, as we have pointed out, valuation is, by definition, a subjective exercise. To describe this exercise, English-speakers also use a more explicit word than the simple term “valuation”: the term “appraisal” also means estimating the qualities or importance of something. The French also refer to “giving an opinion” on the value of a company.

A method in which manipulation attempts are easier to detect and correct

Second criticism: not only subjective, the DCF also favours the manipulation of results. The reason lies in the complexity of the method itself: the successive steps to be implemented and the multiplicity of assumptions and parameters to be taken into account are all opportunities for manipulation and give the impression of a rather opaque process.

In practical terms, what the DCF method is criticised for this time is that it is based on data that may be biased from the outset, as provided by individuals directly “interested” (in the financial sense of the term) in the valuation’s results. This suspicion of manipulation is aimed at both the appraised company’s management and the valuers themselves. The former is suspected of “manipulating” the latter by providing, depending on the circumstances, a deliberately optimistic or pessimistic business plan, while the latter is suspected to favouring their own interests by adopting parameters of pure convenience (normative margin, perpetual growth, risk premium, etc.).

As before, we feel that this criticism relies on a simplistic view of the DCF method. Precisely because of the subjective nature of any valuation exercise, no method is immune to manipulation attempts; in a way, this risk is part of the game and must be integrated as such by the various parties involved and the users of the valuation. And in this context, the DCF method has two key advantages over the two methods under the analogical approach: the attempted manipulation is more easily detected, and its impact on the valuation’s outcome is more easily quantified.

The great merit of the DCF method is that it involves “laying out on the table” all of the data on which the valuation’s results are based. Of course, the manipulation can be subtle (for example, lurking in a particular method of calculating the terminal value), but it nevertheless remains detectable to the skilled reader, as it relates to relatively concrete data. However, this is not the case with analogical methods, where, in most cases, the manipulation hides behind the “experience” or “expertise” of the valuer. A case in point in particular is the selection of comparable companies, often presented as the objective results of research conducted on universally recognised databases, or even the use a valuation multiple preferred over another, frequently justified by the existence of “market practices”. In short, it is much easier to challenge the growth rates or projected rates of return proposed under the DCF method than to criticise the average multiple of the reference sample used as part of the market comparables method.

Nevertheless, all valuation methods are subject to manipulation even if, as we have seen, the form and intensity can vary considerably from one method to another. So, how do we protect ourselves from this risk? To us, the valuer’s competence, independence, and ethics are three essential safeguards. In this regard, the valuation report produced by the valuer is a strong indication of the quality of the work that was done. In particular, a detailed analysis of the context of the valuation seems essential to us, not only because it can identify situations where the risk of manipulation is obvious, but it also provides an opportunity to explain how it was taken into account in the valuation. For example, in the context of a leverage buy-out in which the leaders are financially involved as buyers of shares and/or stock purchase warrants, the valuer may fail to consider the degree of caution that these same leaders possibly integrated into the business plan.

A transparent method allowing the excesses of “market valuations” to be avoided

We therefore counter the two criticisms repeatedly made against the DCF method. Moreover, despite the inevitable subjectivity of the method and the resulting risk of manipulation, we feel that the transparency of this method makes it possible to guard against valuation errors resulting from excesses, both upward and downward, of stock prices and transaction prices. In support of this assertion, we would like to present two diametrically opposed situations encountered in recent stock market history.

The first lies at the height of the stock market crash last fall. At that time, the use of analogical methods seemed to drive all stock prices into an infernal downward spiral. As we know, such a “pro-cyclical” movement also affected all bank shares as a result of accounting rules (amended since then), which required the appraisal of certain assets or liabilities of banks by reference to prices quoted on the financial markets (mark-to-market estimate) and not on the basis of models based on the estimated future cash flows (mark-to-model estimate). To prevent a similar movement from affecting non-financial companies through impairment tests to be done for the closing of annual accounts, market authorities implicitly encouraged companies to favour the DCF method to estimate the fair value of their assets, thus reversing the hierarchy of valuation methods issued by the accounting regulator. In a context of proven financial crisis, we can no longer clearly state the virtues of the DCF method in giving an appropriate estimate of the value of assets (particularly by simulating various crisis emergence scenarios) and incidentally provide, by simple difference with the estimates from analogical methods, a measure of the discount resulting from the lack of liquidity in the stock market.

The second situation coincides with the explosion of Internet stocks in the years 1990-2000. In the euphoric context of this period, where only analogical methods seemed able to justify the astronomical levels reached by the stock prices of most iconic companies (for example,

Amazon.com), the DCF method did, however, make it possible to measure the financial bubble, failing to provide a range of reliable estimates. With a lack of visibility on the growth and profitability of the business activities involved, the sophisticated investor could easily turn the DCF method “upside down” by simulating a wide variety of development scenarios to justify the stock price and, on that basis, realise the nature for the least unlikely of these various scenarios and therefore the unreasonableness of these stock prices.

In conclusion, DCF is one of the essential methods of the “multi-criteria approach”

When it is implemented with demand, the DCF method makes it possible to avoid the excesses specific to the simplistic methods by explaining the basic assumptions underlying the ranges of estimates obtained. However, our purpose is not to advocate the use of the DCF method to the exclusion of any other method. Instead, we support the implementation of a reasonable multi-criteria approach that takes into account the relevance, on a case-by-case basis, of the various methods available. In this regard, the context and objective of the valuation are certainly factors to be taken into account.

For example, in the context of impairment tests on very specific assets, the DCF method is often the only appropriate method, because there are generally no comparable listed activities, and the reference to recent transactions is not adapted to the context of the valuation. However, in the context of a freeze-out, where it involves determining the fair price of compensation for the minority shareholders, using the DCF method and the comparable transactions method jointly helps to meet this goal by simulating two distinct scenarios (i.e. continuation of the current strategy under the current management and creation of synergies through the transfer of control to a player in the sector).

All in all, whenever it can be implemented, the multi-criteria approach has the merit of pitting the estimates from various methods against each other. This approach is then a source of reflection and debate, allowing for the emergence of a “fair value” (loose translation: a reasonable value in the context). And finally, never forget that the process of valuation can come down to the mechanical implementation of a number of financial techniques: regardless of the method used, what distinguishes a good valuation from a bad one is the rigour, experience, and honesty of the valuer.