VALUATION

In Defense of the DCF Method

By Richard R. Conn, CMA, MBA, CPA, ABV, ERP

Recently a number of court decisions, reported in the business valuation press, have emphasized the alleged unreliability of the discounted cash flow (DCF) valuation methodology. In fact, some authors have suggested that the judiciary is speaking out against DCF and consistently preferring market-based value indicators when available. One such instance is "Expert Testimony in Business Valuation Cases Should Be the Exception, Not the Rule," by Messrs. Schwartz, Bryan, and Board which appears in this issue of *The Value Examiner* (page 10). Their article is a synopsis of a much more detailed paper originally published in the American Bar Association's *The Business Lawyer*, which is highly critical of how some paid valuation experts have previously used the DCF methodology.

The DCF method is frequently vilified as the tool business valuators go to when they are attempting to contradict the results of market evidence and thereby skew the results in favor of their own bias.[1] To be sure, the DCF method is sensitive to changes in predicted cash flows and, particularly, changes in the discount rate. Nevertheless, the suggestion that the DCF method is fundamentally flawed is misguided. The DCF methodology is no more to blame for the manipulation of valuation opinions than credit default swaps and mortgage-backed securities were the cause of the 2008 global financial crisis.

Contrary to the position of Messrs. Schwartz, Bryan, and Board's piece in *The Business Lawyer*, there are other legal experts who reject the proposal that market evidence alone should suffice in the determination fair market value (FMV). Groll and Leinwand, in reference to takeover bids, state that "in most cases, it likely would constitute a breach of a board of directors' fiduciary duties if the board did not consider some valuation analyses other than market price in the course of a sale of control."[2] They go on to cite the case of *Smith v. Gorkom* [488 A.2d 858 (Del 1985)], where it was determined that the board of directors' failure to find other financial analysis of corporation value at least contributed to their breach of fiduciary duty of care with respect to the sale of control of the corporation.

There is something innately wrong with the premise that the market approach to business valuation is superior to an income-based approach, such as the DCF method. I am speaking of more than just the superficial observation that, in the valuation of closely held private firms, finding enough, if any, relevant market indicators is a challenge in its own right. Even where market evidence is abundant, it is a mistake to automatically presume that a DCF forecast would be less trustworthy than the market indicators. At the same time, it is important to realize that the circumstances in which the DCF method indicates a different value than the market price should be very rare and unique. If the legal community is finding a multitude of expert valuation opinions where the DCF conclusions are at odds with the market evidence, then those litigators have a valid complaint against the expert valuators rather than against the DCF methodology.

As appraisers, we are taught that there are three fundamental approaches to asset valuation: the cost (or asset-based) approach, the market approach, and the income approach. More narrowly, for those of us specializing in business valuation, we know that the cost approach is generally not applicable. In unique circumstances involving a non-operating holding company that owns only tangible assets, it may be a useful alternative. Generally speaking, however, it will not apply to going-concern businesses with active business income that benefits from an array of intangibles such as a superior reputation or

Continued on page 14.

1 For example, in *Maric. v. PLATO* [11 A.3d 1175 (Del. Ch., 2010], Vice Chancellor Strine finds that the WACC applied in the DCF by the PLATO financial adviser is in contradiction to the financial analysis conducted by that adviser, and that: "The idea that [the financial adviser] subjectively added a further liquidity discount on top of PLATO's healthy beta of 1.12 and the other subjective discounts is itself dubious as a valuation practice." *In re Bachrach Clothing*, a N.D. Ill. Chapter 11 opinion, the Hon. P.S. Hollis wrote of the disparity of the two experts DCF findings: "It lends credibility to the concept that the DCF method is subject to manipulation and should be validated by other approaches." Finally, in the case that Schwartz, Bryan, and Board principally reference, *In re Iridum Operating LLC*, 373 B.R. 283 (Bankr. S.D.N.Y 2007), the bankruptcy court writes that "the DCF methodology has been subject to criticism for its flexibility; a skilled practitioner can come up with just about any value he wants."

2 *Penn State Law Review*, Vol. 116:3, pg. 962.

brand, a loyal customer base, highly trained staff, strategic location(s), strong supplier alliances, patented technology, etc.

The much-touted advantage of the market approach is that it represents actual transactions where real, willing buyers and sellers have agreed to trade cold, hard cash for tangible or intangible assets, financial securities, or other rights and contractual privileges. There is, therefore, nothing hypothetical about market evidence. There is a good deal of confidence that stems from knowing that a market price represents the consensus of a large number of arms-length buyers and sellers all consenting to a market-clearing price that reflects demand and supply equilibrium.

END OF A LONG LINE

Imagine yourself at the end of a long line in front of your stock broker's office. There are 1,000 people in the line and each of you is waiting to complete a "buy" transaction on XYZ Company. Warren Buffett is the first person in line, and you are number 1,000. When you finally get the chance to place your order, you learn from the broker than each of the previous 999 offers were for $10/share, that every offer was accepted by an arms-length seller, and that all the individual offers involved significant funds (the smallest individual purchase was for 50,000 shares). This is the market approach. Can there be any doubt that the current fair market value of XYZ Co. is $10/share? The unanimity of 1,000 buyers (and a probably large but unknown number of sellers) all reaching consensus upon the $10 price should give us a great deal of confidence that this must be FMV.

But the market approach to business valuation begs the question: "How did these buyers and sellers come to the determination of which price to offer and which to accept?" In our XYZ Co. parable, how did Warren, the first bidder in line, decide he would pay $10/share? Did this amount come to him in a dream? What about the 999 subsequent purchasers; did they arrive at the broker's office with a predetermined price in mind, or just decide that "if $10 is good enough for Warren Buffett, it's good enough for me"?

The point is that the market approach is a secondary valuation methodology. You can generally have faith in the fact that *somebody* has done the math and the $10 does represent FMV, but when it comes right down to it, this approach ultimately reflects the analytical thinking of the willing buyers and sellers. By "analytical thinking," I mean the income approach. In the absence of a robust market, the very first bid/ask prices are going to be based upon each party's assessment of future income.[3] The more robust a market becomes, the more closely it will be scrutinized by an ever increasing number of well trained and highly sophisticated analysts who are using the income approach to test whether, in their opinion, the market has strayed from FMV and exposed some risk-free arbitrage opportunities. There will be disagreements, of course. The unanimous consensus of the $10 price of XYZ Co. is something of a fiction. It would be unlikely to get such broad-based agreement upon one single spot price. But this is true of the public market analysts as well: They often disagree over the exact FMV of a given security. When they attempt to justify why their opinion differs from their colleagues' opinions, ultimately they speak in terms of future *income* potential.

The market price is, therefore, a consequence of the income approach and not an alternative to it. One cannot rationalize FMV by the market approach alone. Any attempt to do so results in a very unconvincing circular reasoning:

> **Q:** XYZ Co. is widely traded at $10/share. How did the market come to agree that this was the "right" price?
>
> **A:** The number of shares wanting to be purchased for a price no higher than $10 agreed with the number of shares wanting to be sold at a price no lower than $10.
>
> **Q:** But how did these buyers decide that $10 was the highest price they would offer, and these sellers decide that $10 was the lowest price they would accept?
>
> **A:** They looked at other market indicators, such as the guideline company method where XYZ, an exact duplicate of ABC Co., is trading for $10/share. Also, DEF Co. is a very close risk proxy for XYZ, and the market multiples of that firm suggest that XYZ should be priced at $10.
>
> **Q:** Yes, but, how did the buyers and sellers of ABC and DEF know that *they* were trading at the "right" price?
>
> **A:** They just knew. (Or worse: They used XYZ as a market comparable.)

TRANSMUTATION

Any rationalization of market price for an income-earning business must quickly transmute into a discussion of the income approach. This is not surprising, because the only reason investors acquire these businesses is on the expectation that cash inflows will exceed cash outflows, including the initial investment. Therefore the income approach is naturally the most appropriate yardstick by which to measure the present worth of the business. Unlike Picassos, rare wines, first editions, or the classic Porsche 356C, people don't own active businesses for the aesthetic beauty of beholding the asset. Dry cleaning chains, metal stamping plants, and even valuation consulting practices are purchased solely for the purpose of producing more cash than they consume. The goal of the investing game is to finish up with more cash than you started with. The income approach is the only methodology that directly measures this anticipated outflow-to-inflow relationship.[4]

3 I use the term 'future income' hesitantly. I mean future positive net free cash flows. There can be positive net income as defined in the accounting world that still does not equate to net cash inflows. Investors do not purchase businesses to earn positive accounting net income. They are only interested in net free cash flows. In spite of my reticence, I will continue to use the term 'income' as a synonym for cash flow.

4 Admittedly, the future cash estimates used in the income approach are uncertain and subject to significant deviation from the amounts eventually achieved. However, the investor has volunteered to be exposed to this risk because the market

The income approach comes in two basic flavors: the DCF method or the income capitalization method. The latter is offered in several different variants, but all of these involve estimating the best single annual amount of long-term average cash flow and determining a multiple[5] that correctly reflects the future risk of the business enterprise. Conversely, the DCF method requires a long-term estimate of net free annual cash flows, then discounting these to determine the aggregate present value of all those individual inflows and outflows. Of the two methods, the DCF is preferable because there is a higher probability that it will more closely approximate the "true" net present value of the business than the income capitalization method.[6]

Moderately efficient capital markets should eradicate those instances where assets trading in robust markets are not priced at FMV. Such an occurrence would signal the opportunity for an arbitrage profit and the asset price will quickly revert to FMV. With this in mind, professional valuators who are applying the DCF method to price assets that concurrently have a highly visible public market value (or perhaps a very close facsimile in the public markets) should arrive at the same conclusion as the market. Not to do so either is presumptuous or indicates an error in the DCF assumptions.

Even so, there may be times when a DCF will indicate a different value than the market for legitimate reasons. Some of these reasons may be, for example:

- The market value is reflecting a minority (non-controlling) interest, whereas a controlling value is desired.
- The market value represents FMV of equity price given the existing level of debt, whereas the DCF is attempting to price the equity assuming some other capital structure.
- The market value reflects some prior event that damaged firm value, whereas the DCF is attempting to determine a contemporaneous firm value had the prior damaging event been avoided.

In each of those three examples, it is not as if the valuator is implying that the market value is "wrong," just that a different pricing perspective is required by the specific valuation engagement. One example where the valuator might quite justifiably state that the market is "wrong" occurs when the security in question trades too thinly and/or too infrequently to reflect FMV accurately. In such a case, the valuator could quite defensibly opine that the DCF method is more likely to give an accurate current representation of FMV than a stale trade price for only 25 shares.

In the absence of these special circumstances, however, the assumption is going to be that the market evidence does reflect FMV, and any DCF forecast to the contrary should be held highly suspect. In such a case, the flaw is not with the DCF methodology, but in the assumptions the valuator has applied to the model. As Gary Trugman recently stated so eloquently:

> The DCF is a well established method, and in fact, is the most theoretically correct method to be used in establishing an indicator of value. Unfortunately, there are those experts who are using the methodology to further their clients' interests regardless of the ethics of doing this….Judges would not criticize the method if it were being used ethically and in accordance with professional standards.[7]

Precisely. Let's presume that the vast majority of the members of the valuation profession are highly ethical and completely dedicated to upholding the standards of the profession. Unfortunately, this is also the group that has the most to lose should the reputation of the profession be tarnished by those (presumably few) rogue experts willing to sacrifice their independence and objectivity in favor of their client's bias.

Messrs. Schwartz, Bryan, and Board have suggested that the services of the paid valuation expert should be avoided when sufficient market evidence allows the court to draw its own conclusions of firm value. Some may argue that relying solely upon market evidence is inadequate and a breach of due care in those circumstances where other valuation methodologies could add a greater depth of insight to the ultimate conclusion of value. This would be true even when those other methods only serve to support the market-based evidence. It is a mistake to conclude that the DCF methodology is an imprecise and unreliable approach to business valuation based on those instances when it has been improperly applied by the valuation professional. Market prices for going-concern businesses are derived from the income approach. The DCF method is an important, and, in my view, indispensable tool that should be used to understand the market evidence and assist the courts in finding a fair and equitable determination of business value. VE

Richard R. Conn, CMA, MBA, CPA, ABV, ERP, has since 2006 been a business valuation practitioner in Calgary, Alberta. He specializes in minority dissent claims and pricing hybrid securities and convertible debentures. Conn is a member of The Value Examiner *Editorial Board. E-mail rconn@connvaluation.com.*

will reward riskless ventures only at the risk-free rate. In this sense, the investor is actively seeking opportunities to put his funds at risk and experience unknown variation in future outcomes.

5 I will not bother making the distinction between a multiple and a capitalization rate. Multiples are just the reciprocal of the appropriate risk rate; so I will use the terms interchangeably.

6 See, for example, "A Comparison of Accuracy: Single Period Capitalization vs. Long-Term DCF," at www.connvaluation.com/caseStudies/Capitalization_vs_DCF.pdf.

7 Gary R. Trugman, CPA/ABV, MCBA, ASA, MVS, Trugman Valuation, in *BVWire*, March 6, 2013.