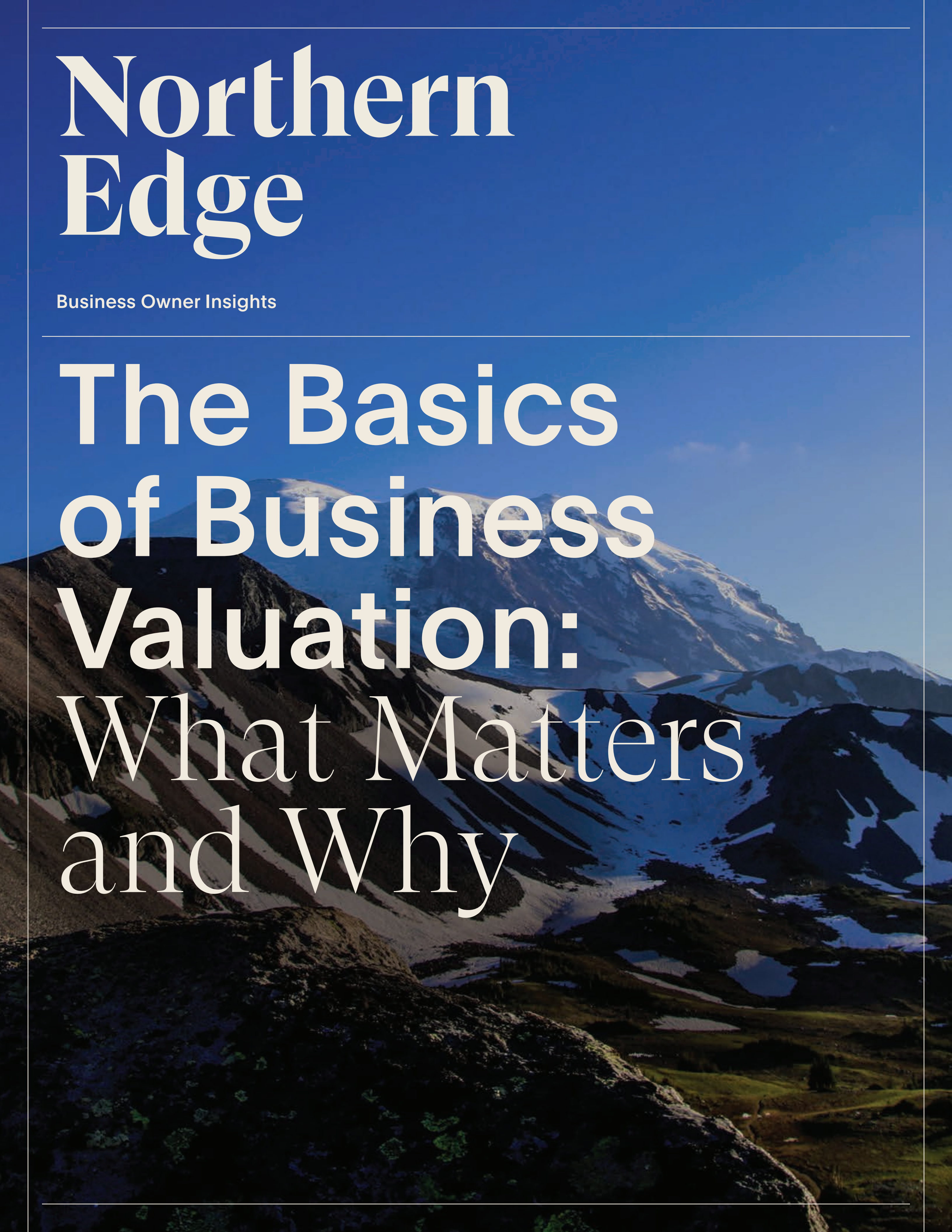
Northern Edge

Business Owner Insights

The Basics of Business Valuation: What Matters and Why

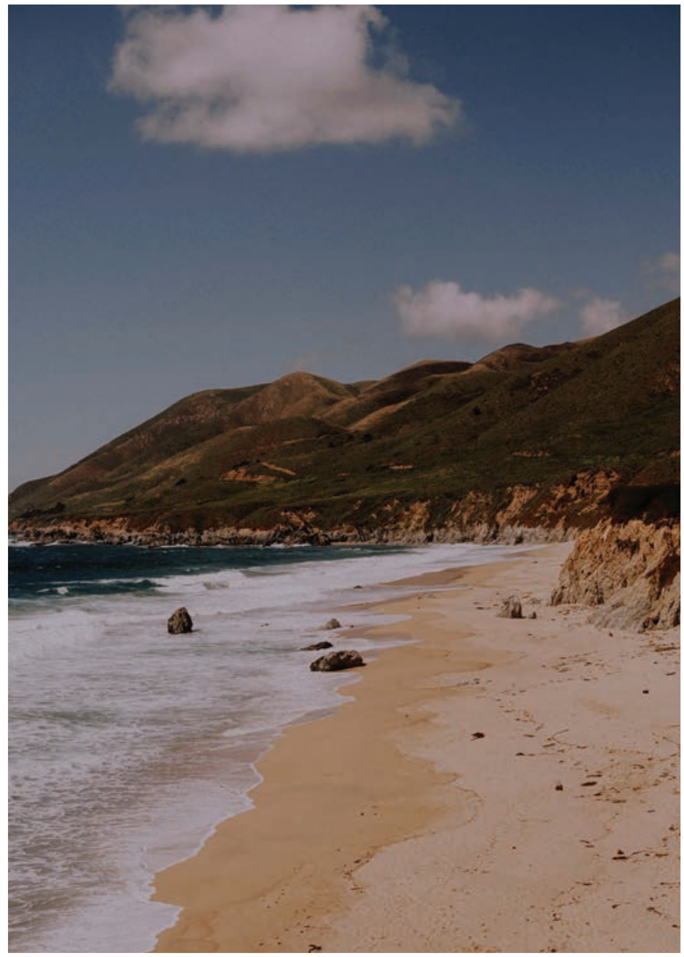


Introduction

Before we dive into methods of business valuation, we should start with a basic discussion about what value means and why we can, or even want to, rely on business valuation methods.

Once we are comfortable with what value is and why we should wonder about it, we will go over the mechanics of classic valuation approaches.

We'll focus on the ones that are typically used – with minor variation – by a variety of market participants, including corporations, banks, portfolio managers and venture capitalists, buyers or sellers alike.



It's simply human nature to assign a higher value to what belongs to us, when we try to sell an asset, than when we purchase the same exact asset.

What Is Value Anyway?

Not surprisingly, value can mean different things to different people, depending on the circumstances, interpretations and role played in a transaction.

For example, value means different things when we buy an asset versus when we sell it. It's simply human nature to assign a higher value to what belongs to us, when we try to sell an asset, than when we purchase the same exact asset. (This phenomenon is so widespread and empirically supported that economists have given it a special name: "endowment effect.")

Research also shows that people tend to assign more value to something earned rather than to something gained. As a result, we are much more likely to assign less value to the million dollars won in Las Vegas (and spend it less wisely), than the same amount of money in our IRA after a lifetime of savings and sacrifices. It makes sense. Or does it?

Based on our everyday experience, we also notice the difference between price and value.

If we are trying to buy a Modigliani masterpiece at a Sotheby's auction, we can assume that there is a lot of uncertainty as to whether or not the price, or winning bid, reflects the actual value. As the highest bidder, there is the possibility that we overpaid for the Modigliani and we will remain doubtful until we sell it in the next auction. Only then will we be able to see if it resells for at least the same amount.

Conversely, if we buy stock of a blue chip company with over 500,000 shares traded every day, it's almost certain that we can resell it immediately for a similar price. In this case, price is more likely to be "fair" and reflective of the true value of the asset than the Modigliani's. This is because, quite simply, many more people are involved, information is widely available, and exchanges of shares happen on a daily basis, helping to correct pricing inefficiencies almost immediately.

People tend to assign more value to something earned rather than to something gained.

What Is Value Anyway?

All of these factors should lend themselves to a more rational outcome.

More similar to the example of the painting, the price of a privately held company can be established only after a lengthy process (typically an auction), when the counterparties shake hands and the negotiated total consideration is wired to the bank account of the seller. However, once the ink dries and ownership is transferred, price will be left to range freely, until it can be corralled in another auction process. In this case, despite its inherent limitations, business valuation can help us estimate the price that would be paid in a live transaction without actually having to sell a company.

Let's first define some of the common value terms, particularly those related to business valuation techniques:

Fair market value: the price at which a business would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, and when both parties have reasonable knowledge of the relevant facts.

Investment value: the value of a business in the hands of a particular buyer based on its own specific attributes.

Taking some liberties with the interpretation, we can think of Fair Market Value as the value of a business that either continues to be operated by its current management or is sold to a new owner who will continue to manage the business efficiently, without any substantial changes. In other words, the buyer is an average market participant, therefore value is not dependent on who operates the company, but on the uniqueness of the assets.

Conversely, Investment Value assumes the combination of the subject company with one or more businesses and this creates synergies that are particular to each potential acquirer. The motivations and special characteristics of the buyer will translate into different levels of value.

...the price of a privately held company can be established only after a lengthy process (typically an auction)...

Different Philosophies on Value

John Maynard Keynes, the noted macroeconomist, did not believe in valuation. Nonetheless, he built a small fortune by investing in the market during his lifetime. He was what people today would call a "behaviorist." His view was that the market is driven more by the emotions of the investors than by financial engineering calculations. But if there is one thing that holds true in economics, it's that there will always be another opinion.

When John B. Williams introduced his "Theory of Investment Value" in the late 1930's and his ideas on the calculation of intrinsic value, the world of value changed forever.

Today, the differences between these two main schools of thought remain.

On one side, we have the rationalists, who believe that every asset has an intrinsic value that can be mathematically estimated, based upon its characteristics in terms of cash flows, growth and risk.

According to this view, capital markets are assumed to err in pricing assets in the moment, but correct themselves over time as new information becomes available.

On the opposite side, we have the "possibilists," who think it's impossible to determine the intrinsic value of an asset. Instead, the value of an asset is whatever the market will possibly pay for it, based upon its characteristics.

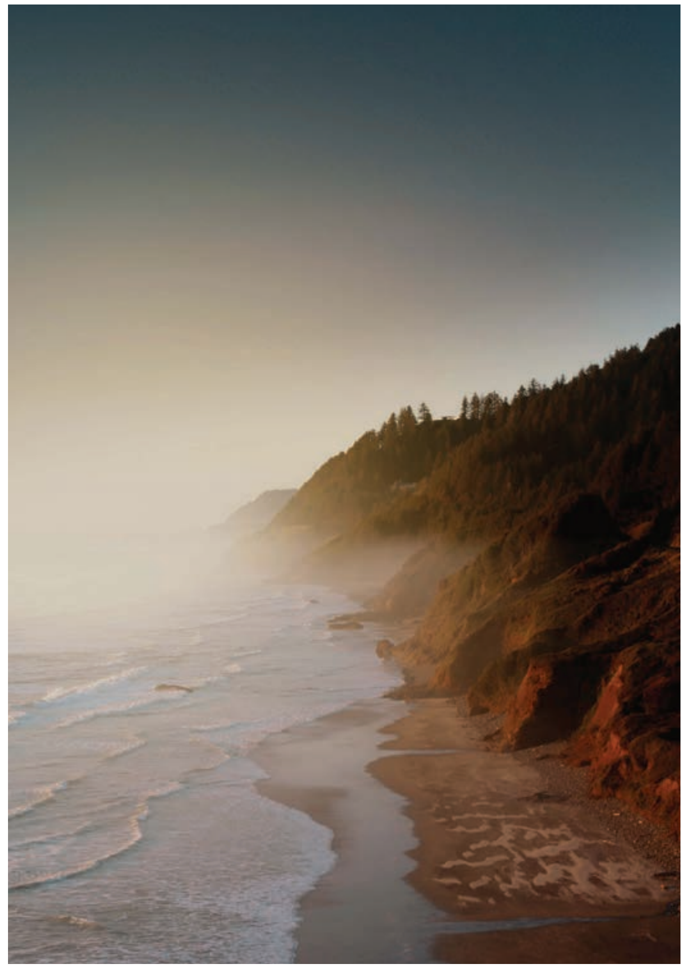
This means that rationalists will prefer a financial determination of value through complex calculations, while possibilists will opt for market-based indications of value, such as market multiples.

[According to "possibilists"]... the value of an asset is whatever the market will possibly pay for it, based upon its characteristics.

Valuation Techniques

Now, let's look at the three classic valuation methodologies used in business valuation, with an emphasis on the first two:

- The Income Approach or Discounted Cash Flow (DCF) analysis – preferred by rationalists;
- The Market Approach – preferred by possibilists;
- The Underlying Asset Approach or Cost Approach – preferred by appraisers for the valuation of tangible assets, such as machinery and equipment.



Income Approach

In the DCF analysis, the value of an asset is the present value of the expected cash flows on the asset.

Based on the simple idea that we prefer to receive $1 today that $1 a year from now, this method projects a stream of future earnings, cash flow, or asset values and then discounts them to present value.

This is the most frequently used method and includes a variety of specific tools and models (e.g. Capital Asset Pricing Model, Arbitrage pricing theory, etc.). A complete DCF analysis relies on a large number of accounting, financial, behavioral and environmental assumptions. At the very least, this method requires estimating the following:

— Life of the asset;

— Cash flows during the life of the asset;

— Discount rate to apply to these cash flows to get present value.

Example:
In 2016, ABC, Inc. generated a cash flow of $500,000. The company is expected to remain in business for the next five years. During this time frame, it is anticipated that ABC cash flow will grow 3% a year. The cost of financing ABC, Inc. is 15%.

	2009	2010	2011	2012	2013	2014
Cash Flow *	$ 500.00	$ 515.00	$ 530.50	$ 546.40	$ 562.8	579.6
Growth %		3%	3%	3%	3%	3%
Present Value Factor @ 15%		0.8696	0.7561	0.6575	0.5718	0.4972
Present Value		$ 447.80	$ 401.10	$ 359.20	$ 321.80	$ 288.20
Total Value (rounded)**	$ 1820.00					

* *Cash flow to the firm: equity and debt.*

** *Value of the entire company including stock and debt.*

Income
Approach

Clearly, this methodology can be easily adapted to more complex situations. When DCF valuation is done correctly, based upon an asset's fundamentals, it should be less exposed to market moods and perceptions.

If you believe that good investors buy businesses, rather than stocks (the Warren Buffet adage), DCF valuation is the right way to think about what you are getting when you buy an asset. In other words, the DCF analysis forces you to think about the underlying characteristics of the firm and understand its business. If nothing else, it brings you face to face with the assumptions you are making when you pay or expect to receive a given price for an asset.

Because it is an attempt to estimate intrinsic value, the disadvantages are that it requires far more inputs and information than other valuation approaches. These inputs and information are not only "noisy" and difficult to estimate, but they can be manipulated by the savvy analyst to provide the conclusion he or she likes.

The Market
Approach

The market approach assumes that the relative value of any asset can be estimated by looking at how the market prices similar or comparable assets.

It utilizes objective data on market prices (either from trades or control transactions) for assets similar to the subject assets. Simple examples include multiples of earnings, EBITDA (Earnings before interest, taxes, depreciation and amortization), cash flow, revenue, square feet, eyeballs, etc.

The economic underpinning of this method is the so called "Law of One Price," which simply states that in decently functioning markets, similar assets should have similar prices.

The Market Approach

One of the main challenges in the market approach is that selecting comparable companies requires skill and is often very subjective.

To find the relative value, it is necessary to have the following information:

- An identical asset, or a group of comparable or similar assets;
- A standardized measure of value (in equity, this is obtained by dividing the price by a common variable, such as earnings or book value);
- And if the assets are not perfectly comparable, variables to control for the differences.

In the market approach, it is very important to match value with the right income stream.

Relative valuation is built on the assumption that markets are correct in the aggregate, but make mistakes on individual securities. To the degree that markets can be over or under valued in the aggregate, relative valuation will fail.

The advantage of this approach is that it may require less information in the way in which most analysts and portfolio managers use it. This is because it uses assumptions about variables that would have required specific data in a DCF valuation (e.g. growth rates, cost of capital, risk, etc.). It naturally follows that to the extent that these assumptions are wrong, the relative valuation will also be wrong.

Example:
If a set of selected comparable companies trade in the stock market at 12 times earnings, and your company this year had earnings of $200,000, then you might conclude that investors would pay $2.4 million ($200,000 x 12) for your stock (Market Value of Equity).

Additionally, if your company has $1.5 million in outstanding long-term debt, the Market value of Invested Capital (MVIC) for your company would be the sum of the two or $3.9 million.

The Cost Approach

In the cost approach, value is estimated by combining the replacement cost of each of the individual assets that comprise the business. In other words: if I had to purchase all the same assets you own today (taking into consideration that they are not new), how much would I have to pay for them? For practical reasons, we typically start by looking at the market for new assets because it's likely to be more liquid and provide better information.

Once we have the price of the new assets, we discount that price for age and usefulness: we then subtract the physical depreciation, the functional obsolescence, and finally the economic obsolescence.

The value of old assets, in terms of physical depreciation, can be approximated by accounting measures (i.e. depreciation expense or amortization expense). Functional obsolescence, on the other hand, refers to the fact that the asset might be not only old physically, but also less useful for a series of other reasons. For example, a computer bought only a couple years ago can become functionally obsolete if it cannot run the latest software or it cannot be connected to another piece of critical hardware.

Finally, economic obsolescence focuses on the idea that an asset's value can decrease due to external circumstances such as major technological shifts (typewriters being replaced by PCs), negative externalities (an industrial plant built next to residential property), or changes in regulation (a new environmental law that prohibits the use of a specific manufacturing process). It goes without saying that the boundaries between functional and economic obsolescence can be blurry and require experience and judgment.

Although the cost approach works quite well when trying to value a single piece of equipment, it becomes quite cumbersome when the list of assets includes all the assets of a business.

In the cost approach, value is estimated by combining the replacement cost of each of the individual assets that comprise the business.

Conclusion

Business valuation does not provide indisputable results, since it combines both art and scientific components. Despite its limitations, it is very useful in establishing a base case, whose idea can be well captured by the notion of Fair Market Value.

Under these conditions, valuation will illustrate what the value of the business is if bought by an average market participant. Presumably, this is the price that its current owner should be willing to pay if he or she did not own it already.

What business valuation is not very good at is helping the seller identify the highest possible Investment Value in the marketplace. This is because it is almost impossible to know all of the assumptions, potential synergies and motivations of each and every single potential acquirer in the marketplace.

Nonetheless, let's not forget that before deciding what to pay for a specific company, buyers typically go through a comprehensive valuation exercise where the assumptions reflect their own view of the world. Needless to say, that to their advantage, buyers have to care only about their own set of assumptions. If the buyer does use the methodologies illustrated above, it can be a good idea to do the same thing on the sell side, simply to challenge the assumptions or price ranges proposed by the acquirer.

Discuss your business, its potential suitability for a sale transaction and the options available to you at an individual consultation with a senior Northern Edge investment banker.

You'll be able to discuss your position in complete confidence, and meetings can be arranged at a time and location convenient to you.

To schedule, visit www.northernedgeadvisors.com or call 877.592.EDGE.

A: 747 Third Avenue, 27th Floor
New York, NY 10017
T: 877.592.EDGE
E: meetings@northernedgeadvisors.com
W: www.northernedgeadvisors.com

Northern Edge