

# How to Value an Insurance Company

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Most investors avoid trying to value financial firms due to their complicated nature. However, a number of straightforward valuation techniques and metrics can help them quickly decide whether digging deeper into valuation work will be worth the effort. These straightforward techniques and metrics also apply to insurance companies, though there are also a number of more specific industry valuation measures.

## A Brief Introduction to Insurance

On the face of it, the concept of an insurance business is pretty straightforward. An insurance firm pools together premiums that customers pay to offset the risk of loss. This risk of loss can apply to many different areas, which explains why health, life, property and casualty (P&C) and specialty line (more unusual insurance where risks are more difficult to evaluate) insurers exist. The difficult part of being an insurer is properly estimating what future insurance claims will be and setting premiums at a level that will cover these claims, as well as leave an ample profit for shareholders.

Beyond the above core insurance operations, insurers run and manage investment portfolios. The funds for these portfolios come from reinvesting profits (such as earned premiums, where the premium is kept because no claim occurred during the policy's duration) and from premiums before they get paid out as claims. This second category is a concept known as float and is important to understand. Warren Buffett frequently explains what float is in Berkshire Hathaway's annual shareholder letters. Back in 2000 he wrote:

"To begin with, float is money we hold but don't own. In an insurance operation, float arises because premiums are received before losses are paid, an interval that sometimes extends over many years. During that time, the insurer invests the money. This pleasant activity typically carries with it a downside: The premiums that an insurer takes in usually do not cover the losses and expenses it eventually must pay. That leaves it running an "underwriting loss", which is the cost of float. An insurance business has value if its cost of float over time is less than the cost the company would otherwise incur to obtain funds. But the business is a lemon if its cost of float is higher than market rates for money."

Buffett also touches on what makes valuing an insurance company difficult. An investor has to trust that the firm's actuaries are making sound and reasonable assumptions that balance the premiums they take in with the future claims they will have to pay out as insurance payments. Major errors can ruin a firm, and risks can run many years out, or decades in the case of life insurance.

## Insurance Valuation Insight

A couple of key metrics can be used to value insurance companies, and these metrics happen to be common to financial firms in general. These are price to book (P/B) and return on equity (ROE). P/B is a primary valuation measure that relates the insurance firm's stock price to its book value, either on a total firm value or a per-share amount. Book value, which is simply shareholders' equity, is a proxy for a firm's value should it cease to exist and be completely liquidated. Price to tangible book value strips out goodwill and other intangible assets to give the investor a more accurate gauge on the net assets left over should the company close shop. A quick rule of thumb for insurance firms (and again, for financial stocks in general) is that they are worth buying at a P/B level of 1 and are on the pricey

side at a P/B level of 2 or higher. For an insurance firm, book value is a solid measure of most of its balance sheet, which consists of bonds, stocks and other securities that can be relied on for their value given an active market for them.

ROE measures the income level an insurance firm is generating as a percentage of shareholders equity, or book value. An ROE around 10% suggests a firm is covering its cost of capital and generating an ample return for shareholders. The higher the better, and a ratio in the mid-teens is ideal for a well-run insurance firm.

Other comprehensive income (OCI) is also worth a look. This measure shows the implications of investment portfolio on profits. OCI can be found on the balance sheet, but the measure is also now on its own statement in an insurance firm's financial statements. It gives a clearer indication of unrealized investment gains in the insurance portfolio and changes in equity, or book value, that are important to measure.

A number of valuation metrics are more specific to the insurance industry. The Combined Ratio measures incurred losses and expenses as a percentage of earned premiums. A ratio above 100% means the insurance firm is losing money on its insurance operations. Below 100% suggests an operating profit.

One investment banking report advocated a focus on premium growth potential, the potential to introduce new products, the projected combined ratio for the business, and the expected payout of future reserves and associated investment income in regard to the new business an insurance firm is generating (because of the difference in timing between premiums and future claims). Therefore, the liquidation scenario and emphasis on book value is most valuable. Also, comparable approaches that compare a firm to its peers (such as ROE levels and trends) and buyout transactions are useful in valuing an insurer.

Discounted cash flow (DCF) can be used to value an insurance firm, but it is less valuable because cash flow is more difficult to gauge. This is due to the influence the investment portfolio, and resulting cash flows on the cash flow statement, which make it harder to gauge the cash being generated from the insurance operations. Another complication mentioned above is that these flows require many years to generate.

## **A Valuation Example**

Below is an example to give a clearer picture of the above valuation discussion. Life insurer MetLife (NYSE:MET) is one of the largest in the industry. It is the largest U.S.-based insurer based on total assets, and its market capitalization level as of August 2013 was right at \$53 billion, which was only exceeded by China Life Insurance Co. (NYSE:LFC) at \$71 billion. Prudential plc (of the U.K.) is another large player with market caps just below \$50 billion.

MetLife's ROE has only averaged around 5% over the last five years but suffered during the financial crisis. This was below the industry average of 8% during this period, but MetLife's ratio is projected to reach 10.2% for the current calendar year, and the company has goals to increase it closer to 15% over the next several years. China Life's projected ROE is nearly 13%, and Prudential's is 13.9%. MetLife is currently trading at a P/B of 0.9, which is below the industry average of 1.3. China Life's P/B is 1.8, and Prudential's is 3.1.

Based on the above, MetLife looks like a reasonable bet. Its ROE is returning to double digits and is above the industry average. Its P/B is also below 1, which is generally a good entry point for investors based on historical P/B trends. China Life and Prudential have higher ROEs, but P/B is also much higher. This is where it becomes important to dig deeper into each firm's financial statements. OCI is important in investigating the investment portfolios, and analyzing growth trends will be needed to

decide if paying a higher P/B multiple is warranted. If these firms outgrow the industry, they could be worth paying a premium.

**Bottom Line**

As with any valuation exercise, there is as much art as science in getting to a reasonable value estimate. Historical numbers are easy to calculate and measure, but valuation is about making a reasonable estimate of what the future holds. In the insurance space, accurate predictions of metrics such as ROE are important, and paying a low P/B can help put the odds in investors' favor.

# DCF Valuation: The Stock Market Sanity Check

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For most people, discounted cash flow (DCF) valuation seems like a form of financial black art, best left to Ph.D.s and Wall Street technical wizards. DCF intricacies do involve complex math and financial modeling, but if you understand the basic concepts behind DCF, you can perform "back-of-the-envelope" calculations to help you make investment decisions or value small businesses. This article, will discuss a few practical applications.

## DCF Usages

Let's begin with a brief overview. DCF is a valuation method that can be used for privately-held companies. It projects a series of future cash flows, EBITDA or earnings and then discounts for the time value of money, typically using the company's own weighted average cost of capital (WACC) over a period of five to 10 years. The sum of all future discounted flows is the company's present value. Professional business appraisers often include a terminal value at the end of the projected earnings period, and they also may apply discounts for small-company risk, lack of liquidity or shares representing a minority interest in the company.

## An Acid Test for Valuing a Public Stock

DCF is a blue-ribbon standard for valuing privately-held companies; it can also be used as an acid test for publicly-traded stocks. Public companies in the United States may have P/E ratios (determined by the market) that are higher than DCF. This is especially true of smaller, younger companies with high costs of capital, and uneven or uncertain earnings or cash flow. But it also can be true of large, successful companies with astronomical P/E ratios.

For example, let's do a simple DCF test to check whether Apple stock was fairly valued at a given point in time. During June of 2008, Apple had a market capitalization of \$150 billion. The company was generating operating cash flow of around \$7 billion per year and we'll assign a WACC of 7% to the company, because it is financially strong and can raise equity and debt capital inexpensively. We'll also assume that Apple can increase its operating cash flow by 15% per year over the 10-year period, a somewhat aggressive assumption because few companies are capable of sustaining such high growth rates over lengthy periods. On this basis, DCF would value Apple at a market capitalization of \$106.3 billion, 30% below its stock market price at the time. In this case, DCF provides one indication that the market may be paying too high of a price for Apple common stock. Smart investors might look to other indicators, such as inability to sustain cash flow growth rates in the future, for confirmation.

## The Importance of WACC on Stock Market Valuations

Doing just a few DCF calculations demonstrates the link between a company's cost of capital and its valuation. For large public companies (such as Apple), the cost of capital tends to be somewhat stable. But for small companies, this cost can fluctuate significantly over economic and interest rate cycles. The higher a company's cost of capital, the lower its DCF valuation will be. For the smallest companies (below about \$500 million in market cap), DCF technicians may add a "size premium" of 2-4% to the company's WACC to account for extra risk.

During the credit crunch of 2007 and 2008, the cost of capital for the smallest public companies soared as banks tightened lending standards. Some small public companies that could tap bank credit at 8% in 2006 suddenly had to pay 12-15% to hedge funds for increasingly-scarce capital. Using simple DCF valuation, let's see what the impact of increasing WACC from 8% to 14% would be on a small public company with \$10 million in annual cash flow and projected annual cash flow growth of 12% over a 10-year period.

Net present value of the company @ 8% WACC	\$143.6 million
Net present value of the company @ 14% WACC	<u>\$105.0 million</u>
Decline in net present value \$	\$38.6 million
Decline in net present value %	26.9%

Based on the higher cost of capital, the company is valued at \$38.6 million less, representing a 26.9% decline in value.

### Building a Company's Value

If you are building a small company and hope to sell it one day, DCF valuation can help you focus on what is most important - generating steady growth on the bottom line. In many small companies, it's difficult to project cash flow or earnings years into the future, and this is especially true of companies with fluctuating earnings or exposure to economic cycles. A business valuation expert is more willing to project growing cash flows or earnings over a lengthy period when the company has already demonstrated this ability.

Another lesson taught by DCF analysis is to keep your balance sheet as clean as possible by avoiding excessive loans or other forms of leverage. Awarding stock options or deferred compensation plans to a company's top executives can strengthen a company's appeal to attract quality management, but it can also create future liabilities that will increase the company's cost of capital.

### The Bottom Line

DCF valuation isn't just financial rocket science. It also has practical applications that can make you a better stock market investor because it serves as an acid test of what a public company would be worth if it were valued the same as comparable private companies. Astute, value-minded investors use DCF as one indicator of value, and also as a "safety check" to avoid paying too much for shares of stock, or even a whole company.

### Definition of 'Discounted Cash Flow - DCF'

A valuation method used to estimate the attractiveness of an investment opportunity. Discounted cash flow (DCF) analysis uses future free cash flow projections and discounts them (most often using the weighted average cost of capital) to arrive at a present value, which is used to evaluate the potential for investment. If the value arrived at through DCF analysis is higher than the current cost of the investment, the opportunity may be a good one.

Calculated as:

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}$$

CF = Cash Flow  
r = discount rate (WACC)