## Is Price-to-Book Value Still Relevant?

Investors have historically used a variety of characteristics to measure the valuation of a stock. Price-tobook value is one such characteristic and has often been used as the line in the sand when distinguishing value investors from growth investors. As long-term value investors, we have leaned on this ratio (and others) as a measure of value for both individual stocks and the overall portfolio. More recently, however, there are suggestions that price-to-book value has evolved into a less robust metric.

Price-to-book value has been viewed as a key measure since Fama and French's 1993 study, which found it to be the most prominent value factor in determining excess returns. The following graph plots the cumulative excess returns of the cheapest decile of stocks by four different measures of value, including price-to-book. The figure illustrates that between 1963 and 1992 price-to-book (along with other measures of value) was a good predictor of excess returns.

Figure 3: Value Factors 1963-1992


However, since that study, those same factors have demonstrated less predictive qualities than they have historically. The following table illustrates the excess returns for the same value predictors from 1993 to 2015. We note that of the four factors, price-to-book value has particularly become less of a useful tool for predicting excess returns than it has in the past.

Figure 4: Value Factors Since Fama/French (1993-2015)


We believe that there are several reasons for why the price-to-book ratio has become a less useful tool for measuring value.

First, the ratio may have fallen victim to its own success. Due to its historic effectiveness as a predictor of excess returns, its use has increased and become commoditized over time. When value investors, indices and the general investing public began to chase the metric and use it as a screening tool, its information advantage was diluted and now seems to have lost some of its efficacy.

Second, as the economy has evolved from manufacturing-based to more service-oriented, investment has broadly moved from being tangible to more intangible. The following table demonstrates that over time, the share of GDP from tangible investments has become less important relative to intangibles, and the crossover point occurred sometime during the last ten years. Tangible investments include buildings, machinery and equipment while intangible investments include software, databases, design, training, marketing, research and business process. Tangible investments are generally included in the book value of firms, whereas intangible investment can be included in both book value or expensed as a cost of doing business. This grey area regarding how intangible investments are accounted for, combined with the growth in intangible investments over time, may have also contributed to some of the decline in the effectiveness of using book value as a measure of value.


Figure 2.4. Intangible and tangible investment in Europe and the United States. Countries are Austria, Czech Republic, Denmark, Finland, France, Germany, Italy, Netherlands, Spain, Sweden, UK, USA. Source: authors' calculations based on INTAN-Invest database (www.intan-invest.net).

Finally, the success of capital-light business models has further contributed to the decline in relevance of price-to-book value. Over the last decade or so, technology stocks have performed extremely well. As capital-light businesses, these companies have little in the way of tangible assets, minimal book value and typically trade at very high price-to-book values. Nonetheless, their stock prices have increased dramatically, perhaps a further indication that price-to-book value's usefulness as a standalone valuation tool has been reduced.

As a result of the commoditization of the metric and the change to a more intangible-based (or asset-light) economy, we believe that price-to-book value has become a less predictive tool. While we continue to pay attention to price-to-book when assessing a business or the market overall, we do not use it in isolation. Instead, we evaluate it in conjunction with other characteristics and calculations. Valuing a business is as much an art as it is a science, which is why we analyze a variety of factors to better understand the risk profile of an investment and to arrive at an appropriate assessment of a company's true value.

