The PE Multiple

By Michael Kemp

Johann Goethe wrote in “Maxims and Reflections”: “There is nothing so terrible as activity without insight.” I thought it particularly appropriate to a discussion of the PE multiple. Being one of the most popular financial metrics the PE multiple is certainly applied with great activity, but so too is it commonly used “without insight”. The purpose of this article is to explore what the PE multiple is actually telling us, and more importantly, not telling us. For many readers this article will hold some surprises.

Calculating the PE multiple

Investor understanding of the PE multiple varies widely. Most investors know how to calculate it. Dividing the current share price by the most recently reported earnings per share (EPS) is fairly straightforward. But the problem is that many investors then use it as a measure of relative value. That is, a stock with a low PE multiple is judged as cheap and a stock with a high PE multiple is judged as expensive. But this relationship is a very weak one. More often low PE multiples are deserved by the stock to which they are applied. So to place undue reliance on the PE multiple as a stock selection tool can result in some very poor investment results.

The belief that the PE multiple indicates relative value stems back to the very origins of the PE multiple itself. It was adapted from a property valuation tool first used centuries ago by England’s landed gentry. Commercial property was valued by capitalizing its annual rental stream. The multiple applied was referred to as “number of years purchase”, which was effectively just a PE multiple. To do this is OK when the earnings stream is steady, like the rentals flowing to the landed gentry. But it’s a whole different ball game when applied to earnings per share, which do not remain constant.

The PE multiple is calculated by dividing the current share price by the last reported earnings per share. Therefore the numerator (the current market price) is always up to date. But the denominator (the earnings per share) is only as current as the last financial statement. Therefore price sensitive information, released since the last earnings report, will be incorporated into the numerator but not the denominator. A recently announced profit downgrade will see a conventionally calculated PE multiple fall and therefore send out a false signal the stock is cheap. In an attempt to overcome this deficiency the PE multiple is often calculated using prospective earnings rather than historical earnings. But this means dusting off the crystal ball with all the inherent problems that introduces.

Variables impacting the PE multiple

So far I’ve barely scratched the surface regarding problems with the PE multiple. So let’s shift the discussion up a gear or two. Armed with the following you might conclude, as I have, that the PE multiple is virtually useless in making value judgments about individual stocks. I once heard Roger Montgomery describe the PE multiple as “twaddle”. It was an apt summary.

I’m going to introduce some of the main variables driving the PE multiple. I appreciate I won’t be covering them all but this article is only 1200 words long! The big one I’ve left out is investor sentiment. I’m also going to ask that you now enter a synthetic world - the world of economic assumptions. When things get complex, as stock valuation can, this is the only way we can conceptualize the issues at hand. Let's begin with a formula used by valuation theorists to justify a stock's price to book ratio:

$$\frac{P}{B} = \frac{ROE - g}{r - g}$$

Where:

ROE = Return on Equity (book value)

g = annual growth in earnings

r = Discount Rate (Required Rate of Return)

Since it's a given that EPS = ROE × Book Value per share (E) then dividing both sides of the above equation by ROE provides a platform for discussing the variables impacting the PE ratio.

$$\frac{P}{E} = \frac{ROE - g}{ROE\ (r - g)}$$

If you look at the right hand side of the equation you will see the PE multiple is impacted by variations in ROE, growth in earnings and the discount rate applied to the valuation. The discount rate is in turn determined by the inherent risk of the investment and prevailing interest rates. And since no two stocks are likely to ever display the same mix of these complex and, might I add, largely immeasurable, parameters this means the PE multiples carried by any two stocks are not comparable. Let's use the above formula to develop an example.

Growth - but at what cost?

I often hear it said that investors should select those stocks with the highest prospective earnings growth. That's usually good advice but only under certain conditions. For it to hold true the stock must deliver a return on equity higher than the return you demand of your investment (referred to as the discount rate or required rate of return). If it's lower all bets are off. Consider the following:

Company A: is expected to deliver a ROE of 8% and earnings growth of 1% per year. The market has it on a PE multiple of 9.7.

Company B: is also expected to deliver a ROE of 8% but higher earnings growth of 6%. It's on a PE multiple of 6.25.

Both companies operate in the same industry and have similar risk profiles. And because you've heard somewhere it's OK to use the PE multiple as a basis of comparison when companies are operating in the same industry you've decided company B, with the lower PE multiple, is the one to buy. Strengthening your conviction is its higher anticipated earnings growth.

You have just fallen into the "PE Trap". You have been fooled into believing the lower PE multiple was due to the market undervaluing company B. You've even confirmed this in your mind by noting it's the one with the highest growth in earnings. But the reality is this low PE multiple doesn't represent unrecognized value at all. In fact if you have dialled in a 10% discount rate, the PE multiple the market has pinned on company B is quite realistic.

The key to understanding this lies in the low anticipated return on equity for both companies. The return of 8% is lower than the 10% you are demanding. What both of these companies are doing is destroying value. And company B, with its higher rate of earnings growth, is destroying value at a greater rate than company A! Neither represents an investment you should be making. To the uninitiated it all sounds a bit counterintuitive, but once you understand this nuance you will make better investment decisions.

The PE multiple as a screening device

Investors often use the PE multiple as a screening device. Using a low PE multiple as a selection criterion they first sift through the over 2,000 stocks listed on the ASX to come up with a shortened list of companies for further analysis. But this is a bit like fishing with a leaky net. A lot of good fish are going to get through the holes and you're going to haul in a lot of fish you wish had stayed in the ocean. The companies you will miss are those carrying a high PE multiple which is justified - those demonstrating high growth AND a return on equity well in excess of your required rate of return. Equally unfortunate is the fact your net will haul in companies like the two described in the above example.

Personally I don't rely on the PE multiple for any of my investment decisions and on that note, I wish you happy fishing.

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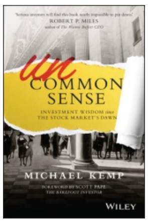

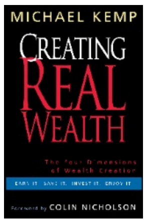

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Michael Kemp is the chief analyst for the Barefoot Blueprint and author of "Uncommon Sense". Published under the Wiley label "Uncommon Sense" delivers a deeply considered and logical approach to the otherwise complex world of investing.