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Meta Platforms, formerly Facebook, will spend a minimum of US$10 billion this year on its metaverse division, Facebook Reality Labs, to build virtual and augmented reality applications. PHOTO: REUTERS

Investing's first principles: The discounted cash flow model

If we are not using it, we could all be taking a random walk when it comes to value and growth

I COULD not sleep. I knew something was wrong. The numbers just did not make sense. For years, pipeline energy analysts seemed to be adjusting their valuation models for pipeline master limited partnership (MLP) stocks, which are US-based unique corporate structures to secure tax advantages, in order to explain what was happening to the price.

But why? Why adjust the models for one set of companies and not for another? Cash is cash and value is the measure of cash going into and out of a business. There are not different rules for different companies. Valuation is universal.

Analysts were valuing MLPs on the price-to-distributable cash flow valuation multiple and on the distribution yield, or the distribution per share divided by the share price. But growth capital spending supports distributable cash flow and drives it higher in the future. The pipeline MLP valuation calculations were ignoring this. Why should pipeline MLPs receive a free pass on the shareholder capital invested in growth projects when other companies did not?

How imbalanced was the MLP valuation processes? Meta Platforms, formerly Facebook, will spend a minimum of US$10 billion this year on its metaverse division, Facebook Reality Labs, to build virtual and augmented reality applications. Imagine ignoring those billions in growth capital spending and still giving Meta credit for the free cash flow growth associated with that spending. That is what was happening with MLPs and distributable cash flow, and when the market caught on, pipeline MLP shares collapsed.

I describe the Kinder Morgan and MLP story in my book *Value Trap* because it emphasises first principles. The discounted cash flow (DCF) model is universal. So, what do I mean by this? And what are first principles? Let us take price-to-earnings (P/E) ratios. Though every valuation multiple can be expanded into a DCF model, P/E ratios are not necessarily shortcuts to the DCF model. When misapplied, they can lead to the wrong conclusions about a company's value.

For example, a P/E ratio of 15 may be cheap for 1 firm and expensive for another. This is because certain variables have a confounding effect that limits what valuation multiples can reveal about a stock's value. The cheap company could have billions in net cash on the books and huge growth prospects, while the expensive one could have billions in debt and poor growth prospects. Yet they still have the same P/E ratio.

Valuation multiples can be helpful when properly applied and with an understanding of what they are proxies for. That low P/E stock may not be cheap if the firm has a huge net debt position. That high P/E stock may not be expensive if it is asset-light with a pristine net cash-rich balance sheet and tremendous prospects for free cash flow growth. But many analysts have forgotten that P/E ratios are an imperfect stand-in for the DCF model and should not be used in isolation.

This has opened the door to all sorts of spurious financial analysis. Think about all the quant factors that statistically "explain" returns on the basis of this or that multiple. There are thousands of forward-looking assumptions embedded in each valuation multiple. Just because that multiple is high or low does not mean the stock is a good buy.

Many analysts today apply the P/E ratio, P/B ratio, EV/Ebitda, and other multiples by themselves as though they were distinct from the underlying DCF model that they are derived from. Some even question whether the DCF model is still relevant. Does forecasting future free cash flows and discounting them back to the present day at an appropriate rate still make sense in the meme stock era of GameStop and AMC Entertainment?

The answer is yes. In valuation, first principles remain essential: Every valuation multiple has an implicit DCF model behind it.

With MLPs, we know what was wrong with their valuations. Relying on "distributable" metrics is like valuing Meta by deducting only an estimate of its "sustaining" capital spending while completely ignoring its metaverse-related growth capital spending – and still crediting the company with the future cash flows generated by that spending.

The MLP bubble demonstrates how applying valuation multiples absent a supporting DCF model can be a recipe for disaster. Indeed, using valuation multiples without a firm foundation in investing's first principles will not yield much insight. Only the DCF model can help determine which 15 P/E stocks are cheap and which are not.

Such errors may help explain the replication crisis in empirical quantitative finance. I believe most statistical analyses that explain stock market returns through valuation multiples are flawed. The relationship between stocks with similar multiples has not really held up in recent years. Why did we ever think it would or could?

If we can understand that 2 stocks with the same P/E ratio can be undervalued or overvalued, why would we believe the performance of stocks with similar valuation multiples would yield actionable data? And what does this imply about the value versus growth conversation? If we are not using the DCF model, we could all be taking a random walk when it comes to value and growth.

All of this helps explain why the DCF model is not only relevant to today's market but remains an absolute necessity. As the 10-year Treasury yield increases and stocks come under pressure, we need to keep the DCF model in mind. After all, those yields form the basis of the weighted-average cost-of-capital assumption.

In this shifting landscape, a return to investing's first principles is inescapable, and the DCF model is an essential tool for navigating what lies ahead.

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