



DISTILLATE CAPITAL

RATIONAL INDEX DESIGN



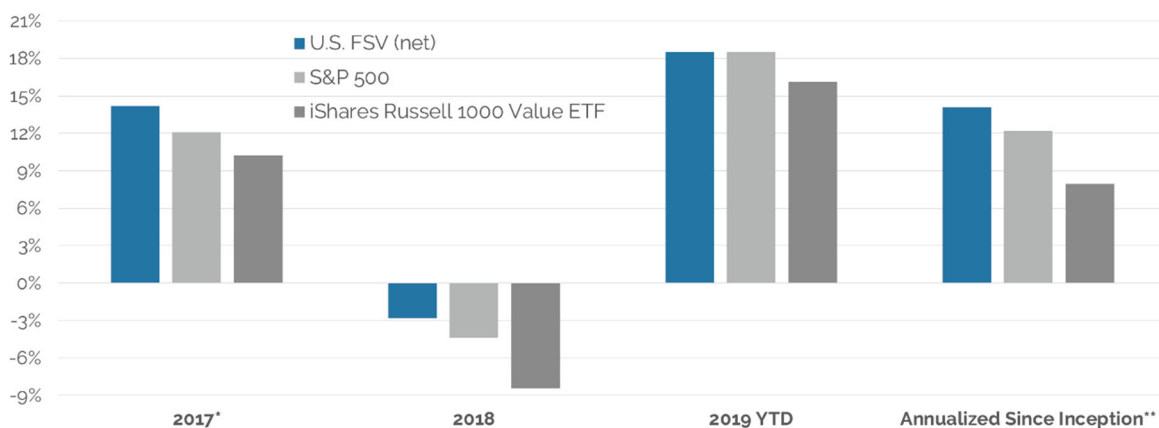
2019 Q2 Letter to Investors: The Lurking Risk of Elevated Debt Levels

Strategy Summary: Distillate Capital's U.S. Fundamental Stability & Value (U.S. FSV) strategy seeks to outperform the overall stock market over the long-term by investing in high-quality stocks with attractive valuations. Our strategy uses cash-flow-based measures of value and quality that are designed to avoid accounting distortions that we believe have rendered many traditional valuation and risk metrics less relevant in an increasingly asset-light world. Our methodology seeks to systematically exploit pricing opportunities while at the same time protecting capital in down markets by being disciplined on valuation, emphasizing fundamental stability, and limiting the indebtedness of the companies held in the strategy.

Performance: Distillate's U.S. FSV strategy outperformed the S&P 500 by 39 basis points net of fees in Q2 2019, bringing year-to-date and net-of-fee performance of 18.55% in-line with the benchmark total return of 18.54%. This follows outperformance in 2017 and 2018 with the result that annualized performance since inception is ahead of the S&P 500 by 1.91% on an after-fee basis (See Figure 1). Performance compared to the iShares Russell 1000 Value ETF was well ahead of the benchmark this year and annualized performance net of fees is more than 6% ahead of this benchmark since inception.

Breaking down the relative performance versus the S&P 500 for the U.S. FSV strategy in the first half of 2019, sector selection was modestly favorable aided by the overweight position in technology where free cash flow yields remain very attractive. Stock selection was a modest drag with the largest detractors from relative performance being Biogen, CVS, and Abbvie, which each subtracted around 25 basis points from relative performance.

Figure 1: Performance of Distillate Capital's U.S. FSV Strategy (through 6/30/2019)



* Strategy inception of 5/31/2017 through 12/31/2017

** Strategy inception of 5/31/2017 through 6/30/2019

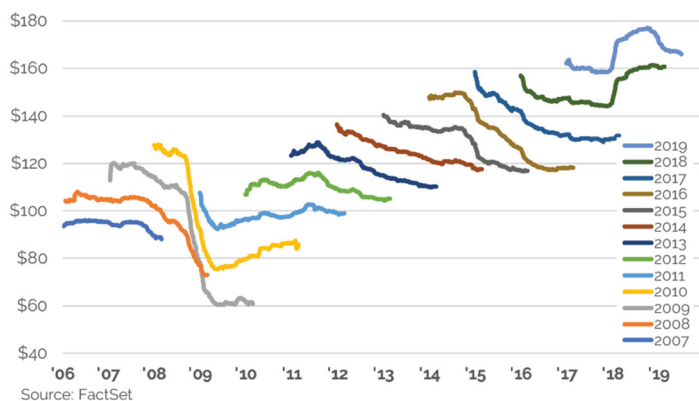
Please see important performance disclosures at the end of this document.

Market Backdrop

While the stock market has continued to perform well, sentiment among most investors seems fairly cautious. Elevated cash balances and survey data support this view. Among investors' worries is the erosion in estimated 2019 earnings per share (EPS). We think this particular concern is misplaced. First, estimated EPS tends to drift lower each year as overly optimistic forecasts are tempered as the year progresses. The moderation in forecast 2019 EPS in this context is not unusual and not overly concerning (See Figure 2). Secondly, in our opinion, the economic evolution from physical to intellectual assets and related accounting issues have made valuation metrics based on traditional accounting metrics like EPS less relevant (for greater detail, see our paper: "[Accounting for Value in a Changed Economy](#)"). Notably, Warren Buffett has also expressed the view that net income and book value are no longer meaningful valuation measures (see our paper: "[Buffett Abandons Book Value](#)").

Estimated EPS tend to drift lower each year as optimistic forecasts are gradually tempered over time. The corporate tax cut in early 2018 led to unusual upward revisions for 2018 and 2019 EPS, but otherwise the trend is generally downward.

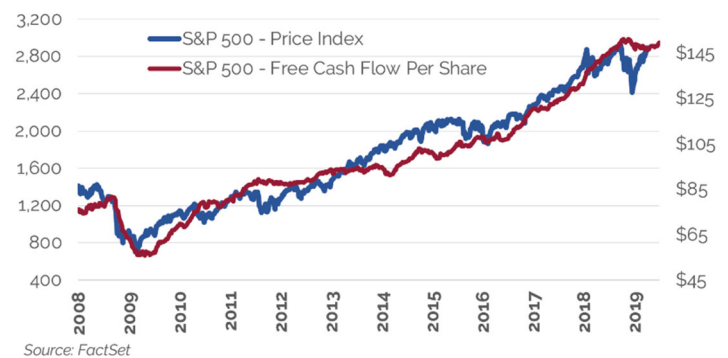
Figure 2: S&P 500 Earnings Estimate Revisions by Year



Given the distortions to traditional metrics like EPS and book value in a capital light economy, we prefer to measure the overall market valuation relative to projected next-twelve-month (NTM) free cash flow. Overlaying this figure with the S&P 500 Index price shows that the market price fell much more sharply than forecast free cash flows in the end 2018 and that both have recovered more recently (See Figure 3). The market's gains this year are therefore a function of a valuation recovery from somewhat depressed levels last year in addition to the ongoing strength in underlying value creation as measured by free cash flow generation. In this context, the strong performance in 2019 does not look particularly concerning. It is also somewhat encouraging that the gains are being met with skepticism instead of excitement and that the market appears to be continuing its climb up the proverbial "wall of worry."

The S&P 500's price drop in Q4 2018 far exceeded the decline in free cash flow, but prices caught up with fundamentals in Q1 2019.

Figure 3: S&P 500 Index Price vs. Next-Twelve-Month (NTM) Projected Free Cash Flow Per Share

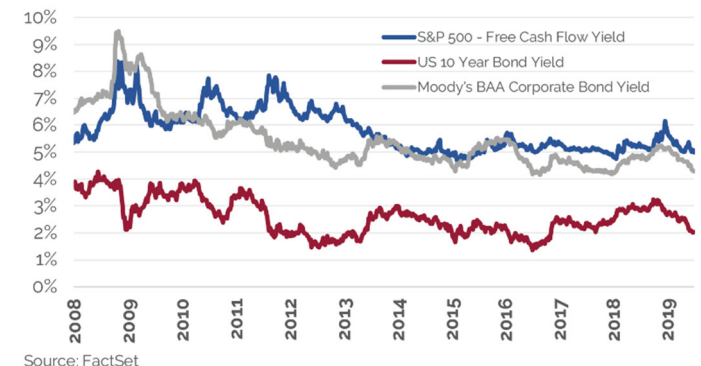


Looking at the free cash flow yield of the market shows that despite strong price performance, valuation is not stretched as the yield has remained around 5% with the notable exception of the spike late last year (See Figure 4). This yield significantly exceeds the yield offered on 10-year Treasury Bonds and has roughly tracked the yield on BAA-rated corporate bonds although the gap between the two has widened somewhat more recently. Importantly, this also indicates that the market rally over the past five years has been supported by underlying fundamentals and is not merely a valuation re-rating as some investors and markets pundits claim.

This is not to say that the current environment is without risk. The overall market's valuation looks reasonable, especially compared with alternatives, but there are a number of areas that look quite expensive. Consequently, we think it is a particularly important time to remain disciplined on valuation. In addition, debt levels are elevated, especially among low beta stocks that have garnered significant inflows. While we do not see any near-term causes for concern about high debt levels (and do not think it is wise to make near-term forecasts), we do believe that elevated debt levels could ultimately pose a risk and should thus be guarded against.

The free cash flow yield on the S&P 500 Index remains around 5% despite the strong market recovery and compares favorably with alternatives.

Figure 4: NTM Free Cash Flow Yield on the S&P 500 vs. 10-Year Treasury and BAA Yields



Portfolio Changes and Valuation

After rebalancing, the weighted average free cash flow yield for the FSV strategy at the beginning of Q3 2019 is 6.5% versus a comparable yield of 5.0% for the S&P 500.¹ The rebalanced U.S. FSV strategy also has significantly more stable long-term fundamentals and less financial leverage than the S&P 500 Index, as shown in **Table 1**. Given rising debt levels generally and particularly elevated leverage ratios in certain areas of the market, we think our focus on low leverage is particularly relevant at present and will discuss this at greater length in the next section.

Distillate Capital's U.S. FSV Strategy is less expensive, more fundamentally stable, and less levered than the S&P 500.

Table 1: U.S. FSV Portfolio Characteristics

	U.S. FSV Strategy	S&P 500
Free Cash Flow Yield ¹	6.5%	5.0%
P/E ²	16.5	20.7
Fundamental Stability ³	0.87	0.68
Leverage ⁴	1.2	1.7

*as of 7/9/2019

Sector Changes: After rebalancing, the industrials, communication services, and financials weights came down and the health care and technology weights increased. The decrease in financials follows its strong performance last quarter and the increase in health care comes on the heels of its underperformance. The increase in the technology weight is due to the attractive free cash yields, low leverage, and through-cycle stability offered by a large number of the stocks in the sector.

Within technology, roughly half of the strategy's weight comes from the software and services sub-industry where over 10% of the portfolio is made up by just six companies. By size, these companies are Microsoft, Visa, Oracle, IBM, Accenture, and Fidelity National Information Services. Many of these companies do not seem like traditional tech companies as Visa and Fidelity National Information Services are payments companies and Accenture provides consulting services. Even Microsoft and Oracle increasingly derive their income from sales that are more recurring in nature and are thus more resilient businesses than their legacy. And Apple, our largest holding at just under 5% of the portfolio, is classified in the hardware sub-industry of the tech sector, but now generates almost one third of its gross income from services rather than hardware. These examples highlight how the

technology sector has changed over the years and now encompasses a wider variety of companies that have higher quality and more stable businesses than was the case in the past. That fact, coupled with attractive valuations at present, explains our large tech weight.

New Buys: The largest new positions in the quarter are United Healthcare, Broadcom, and Anthem. Like many healthcare stocks, United Healthcare and Anthem underperformed the overall market last quarter. Their free cash flow estimates moved higher over this time and the result is that their valuations became increasingly attractive relative to the market such that they were added as new positions. Broadcom also underperformed the market and was added to the strategy due to its attractive valuation.

Sells: The biggest positions that came out of the strategy after the rebalance were Amazon, L3Harris Technologies, and Disney. Amazon was the largest exited position. It entered the portfolio in the previous quarter as its valuation on our normalized free cash yield methodology exceeded the threshold for inclusion. After modest outperformance last quarter and some weakening in its projected normalized free cash flows, the stock's valuation no longer qualified for inclusion in the strategy. L3Harris Technologies was created at the end of the quarter through the merger of L3 Technologies and Harris Corporation, both of which were previously owned. The performance of these stocks exceeded growth in projected normalized free cash flow such that the new entity did not meet the valuation threshold for inclusion. Disney was similarly exited due to strong outperformance versus the overall market that caused its valuation to become less attractive.

Adds: The biggest addition by weight in the rebalance was Alphabet, the parent of Google. Against fairly stable free cash flow estimates, Alphabet underperformed the market by almost 10 percentage points. Its relative valuation improved considerably during the quarter as a result and its weight in the strategy increased during the rebalance. Alphabet exemplifies a research and development intensive company that appears unattractive on traditional accounting-based valuation metrics like price-to-book (P/B) or price-to-earnings (P/E), but that looks very appealing on our normalized free-cash-flow based methodology. The company also has an extremely stable cash flow profile that has been fairly resilient to economic swings. Combined with very low debt levels, the shares look very attractive from a valuation and risk perspective.

Trims: The largest reduction in weight was TE Connectivity, which outperformed by over 10 percentage points. Its relative valuation became less compelling as a result but was still strong enough to warrant inclusion in the strategy at a reduced weight.

¹ Free Cash Flow Yield is based on the next-twelve-month free cash flow estimate relative to market capitalization. Stocks without estimates in the index are excluded and the remaining names are reweighted based on those exclusions.

² P/E is based on consensus estimates for next-twelve-months and excludes P/E's over 250 and under 0 to avoid the distortion from outliers.

³ Fundamental stability is Distillate Capital's proprietary measure of through-cycle cash flow stability with a higher value indicating greater stability.

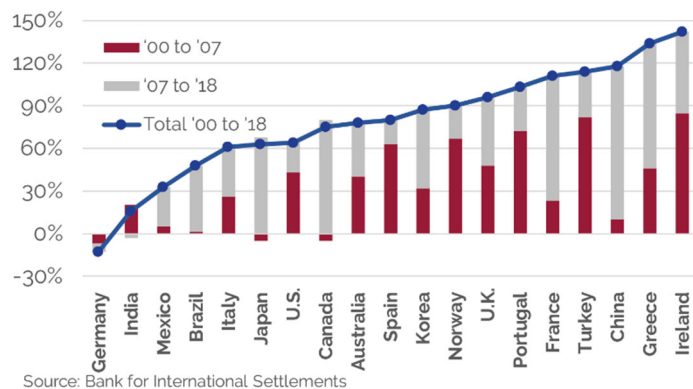
⁴ Leverage is based on Distillate Capital's proprietary measure of indebtedness which looks at the ratio of adjusted net debt to an adjusted measure of forecast Earnings Before Interest, Taxation, Depreciation, and Amortization (EBITDA.)

Elevated Debt Levels

Debt levels are elevated globally. From 2000 to 2007, the combination of household, corporate, and government debt rose sharply in a number of countries and led to the financial crisis. Since then, debt has generally increased further (See Figure 5).

Debt to GDP has increased substantially across the world.

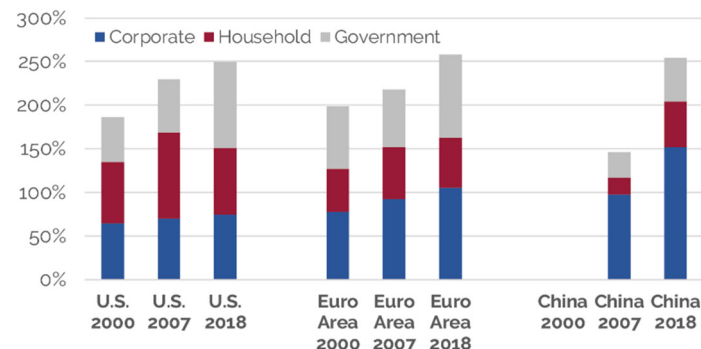
Figure 5: Change in Non-Financial Debt to GDP by from 2000 to 2018 by Country



Breaking down this debt growth by sector shows that while some of the increase prior to the financial crisis was concentrated in households, particularly in the United States, the more recent growth was driven by the corporate and government sectors. This was true in the United States and Europe, but was most exaggerated in the corporate sector in China. Because of this enormous recent growth, China's increase in total debt to GDP over the full '00 to '18 period ranks near that of crisis-struck European economies like Ireland and Greece. For context, Figure 6 compares this rise in debt to that of the U.S. and Eurozone since 2000. We believe this rapid surge in debt urges caution.

Splitting non-financial debt to GDP by sector shows that while household debt drove much of the increase globally from 2000 to 2007, corporate and government debt has been responsible for much of the rise since.

Figure 6: Non-Financial Debt to GDP by Category for the United States, Euro Area, and China



This rapid debt growth in China was enabled by a massive surge in the banking system, where financial assets now exceed \$40 trillion, up from around \$5 trillion at the end of 2005. By comparison, assets in the U.S. banking system are around \$17 trillion and are slightly smaller than U.S. GDP of just over \$20 trillion. China's GDP in dollars, on the other hand, is substantially smaller than the assets in its banking system at just below \$15 trillion. Looked at another way, China's bank assets have risen from around 10% of world GDP in 2005 to almost half today.

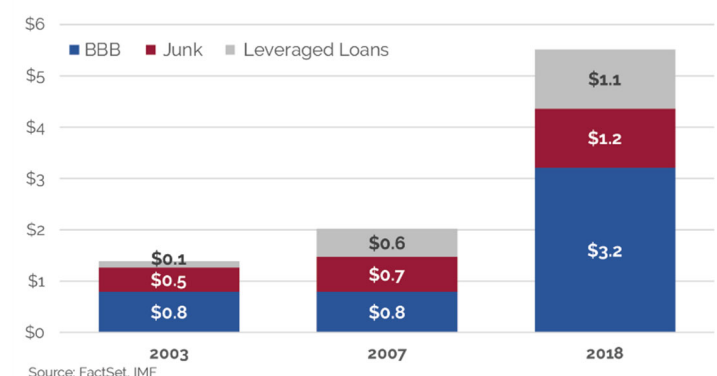
While the increase in debt in China clearly indicates a potential risk that warrants caution for long-term investors, there is some cause for concern in the United States as well where the rise in corporate debt has been much more modest. While U.S. corporate debt overall does not appear problematic, the worry is that this debt is not evenly distributed and lower quality debt has surged.

Leveraged loans are one factor in the growth of lower-quality U.S. debt and have increased from a total stock of around \$100 billion in 2003 to over \$1.1 trillion at the end of last year. Moreover, around 85% of recent issuance is considered "covenant-lite", meaning the debt does not come with guarantees around leverage or other ratios that can protect investors. For comparison, covenant-lite issuance only accounted for 30% of the total in 2007, according to the International Monetary Fund. Junk bonds, which are rated below BBB and are now more generously referred to as "high-yield" by their issuers and underwriters, have also seen substantial growth. Their outstanding stock rose from \$500 billion in 2003 to just over \$1.2 trillion in 2018. The most rapid growth of lower quality debt, however, has occurred among BBB-rated bonds which are the lowest level of investment grade. This category of corporate debt has increased from a total stock of \$800 billion in 2003 and 2007 to \$3.2 trillion at the end of 2018. (See Figure 7).

Overall, this enormous increase in lower quality debt signals caution and suggests that there may be risks to longer-term investors if economic or credit conditions deteriorate at some point in the future. Since a large portion of this debt was issued by public companies, equity investors should be weary of this potential risk.

The supply of lower-quality debt in the United States has surged.

Figure 7: Outstanding Stock of Lower-Quality Debt in the United States



The Example of Mallinckrodt:

Despite having been a well-regarded company, Mallinckrodt's stock price is down around 95% from its peak as massive leverage amplified a more modest weakening in underlying fundamentals.

Figure 8: Mallinckrodt Stock Price & Percentage of Analysts with "Buy" Ratings



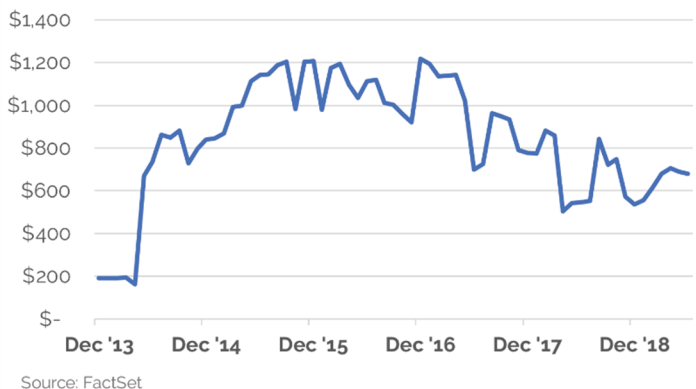
While the risks of high leverage are fairly intuitive, we think it is still useful to walk through an example where excessive debt had a significant negative impact on an equity.

Mallinckrodt is a specialty pharmaceutical company that was spun out of Covidien in 2013. The stock initially did well, but then, despite having the support of much of Wall Street's analyst community, it fell by nearly 95% (See Figure 8). The extent of the fall is staggering as even after the stock fell an initial nearly 60% to the mid \$50's and had almost universal buy recommendations from analysts, it then fell by another nearly 90% to its current level!

Weakening fundamentals were clearly culpable in the stock's fall, with projected NTM free cash flow falling by around 40% from peak (See Figure 9). Leverage, however, was the real killer as it acted as an enormous amplifier to this erosion in fundamentals.

The ~40% decline in projected next-twelve-month free cash flow from peak is much smaller than the ~95% decline in the stock price..

Figure 9: Mallinckrodt Free Cash Flow (\$mm, NTM)

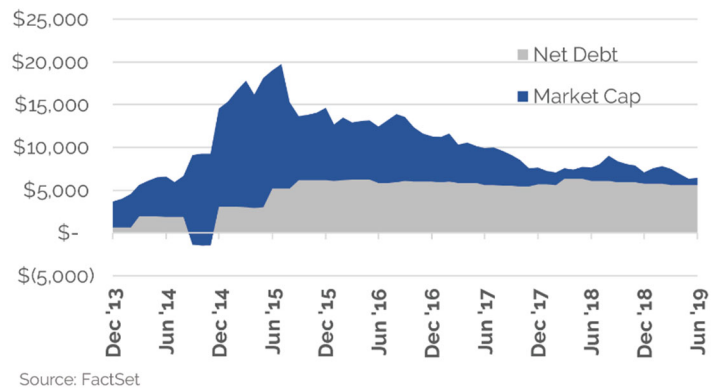


When times were good and free cash flow projections and the shares were rising, the company took on an enormous amount of debt. Net debt started at around \$600 million when the stock came public and projected annual free cash flow was around \$200 million. The company initially accumulated cash, but a series of acquisitions eventually caused its net debt balance to swell to \$6 billion (See Figure 9). Even though forecast free cash flow also moved higher, it rose only to around \$1 billion over this time. The ratio of net debt to free cash flow therefore increased sharply from around 3x to 6x.

Because of this enormous increase in debt, the deterioration in underlying free cash flow quickly translated into an extremely deep decline in the stock price. By examining the overall enterprise value, which is the combination of equity and debt, it becomes clear that the decline in the combined enterprise value was entirely borne by the equity holders since debt is fixed and does not shrink without repayment or default. Thus, the enterprise value decline of approximately 65% from the peak resulted in a nearly 100% drop in the value of the equity (See Figure 10).

Mallinckrodt added enormous amounts of debt when times were good, but when fundamentals eroded, the debt remained fixed and all of the enterprise value drop was absorbed by the equity.

Figure 10: Mallinckrodt Enterprise Value Split by Net Debt and Market Capitalization (\$mm)



Mallinckrodt illustrates the importance of looking at valuation metrics in a manner that includes debt rather than looking simply at the equity, as most metrics do. For example, the free cash flow yield on the equity alone has risen steadily from around the mid-single digits when the company came public to roughly 90% today. Without the context of the debt component, this alone would make the company appear extremely inexpensive and would not give a true assessment of the overall valuation and risk. Most traditional measures of value, like P/B or P/E, can suffer from this issue. Formulaic investing approaches that do not incorporate leverage could thus end up with holdings that look inexpensive on an equity basis, but are highly leveraged and thus much riskier than they appear.

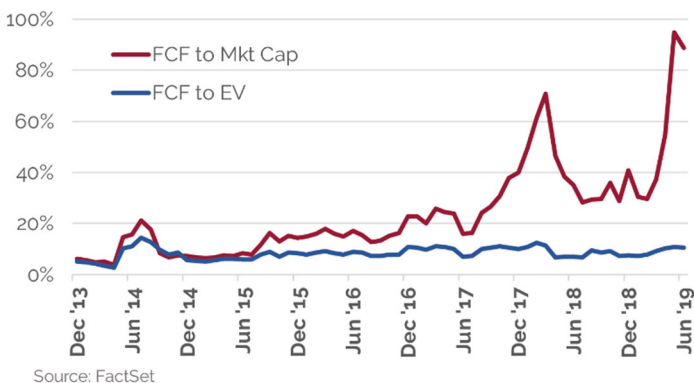
An approach that incorporates debt, as ours does, would have given a very different assessment of Mallinckrodt's attractiveness. This is evident in comparing Mallinckrodt's free cash yield to equity and its free cash yield to enterprise value (See Figure 11.)

Additionally, we believe it is important to protect downside by combining a valuation methodology that incorporates debt with a separate measure of leverage, as we do with our FSV strategy. This helps to further protect against a situation like Mallinckrodt, which looked somewhat attractive even on a free cash flow to enterprise value basis, but had enormous downside risk to the equity given its debt burden.

Overall, this example highlights how failing to include debt, as most valuation metrics do, can produce a very misleading assessment of valuation and risk.

The free cash flow to equity and free cash flow to enterprise value tell very different stories about Mallinckrodt's valuation.

Figure 11: Mallinckrodt Free Cash Flow (NTM) to Enterprise Value vs. Market Capitalization



Investment Implications:

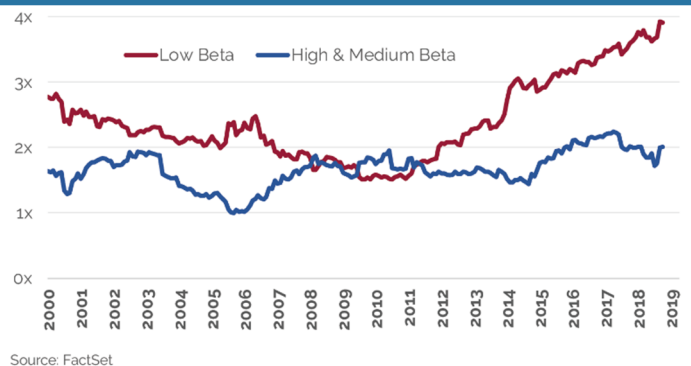
Given the increase in corporate indebtedness around the world, we think it is a particularly prudent time to be thinking about leverage and to be mindful of protecting against its potential risks. While we think many equity investors are currently thinking about downside risk and are always wise to do so, we worry that many may be ignoring the dangers of debt. In particular, the growing popularity of low beta funds suggests that many investors who are trying to guard against losses may be mistakenly taking on unintended leverage risk.

Low beta funds have drawn enormous inflows as investors have gravitated to what they perceive to be less risky strategies. Historically, low beta stocks have done very well due to the “low beta anomaly” in which these lower volatility stocks produce superior compounded returns because they tend to preserve capital in down markets. While we wholeheartedly agree with the importance of preserving capital in down markets and have specifically designed the U.S. FSV strategy with this goal, we are worried that elevated leverage ratios and stretched valuations may prevent low beta stocks from providing the kind of downside cushion in the future that they have exhibited in the past.

Regarding the debt risk specifically, low beta stocks now have significantly more leverage than they have carried in the past. If the S&P 500 is split into low, medium, and high beta categories, all of the increase in overall market indebtedness has been concentrated in the low beta group. Among these stocks, net debt to trailing EBITDA rose from approximately 1.5x to nearly 4x in the past decade, while in the medium and high beta segments, it has remained fairly constant at around half that level (See Figure 12). Should economic conditions deteriorate, this debt burden risks generating unexpected volatility where it is least expected. We would urge caution.

Leverage has increased substantially among low beta stocks.

Figure 12: Leverage for Low Beta Stocks vs. the Rest of the Market⁵



⁵ Beta is calculated over 3 years vs. the S&P 500 Index; groups rebalanced monthly.

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To receive a GIPS compliance presentation and/or our firm's list of composite descriptions please email your request to info@distillatecapital.com.

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The investment management fee schedule for the composite is 0.39%; however, actual investment advisory fees incurred by clients may vary.

The U.S. Fundamental Stability & Value composite seeks to distill a starting universe of large cap U.S. equities into only the stocks where quality and value overlap using Distillate's proprietary definitions. Its goal is to achieve superior compounded long-term returns by limiting downside in periods of market stress, while still providing strong performance in up markets. This composite was created in May 2017.

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