ClearBridge Investments

Digital Markets and the Active Opportunity for Value

Key Takeaways

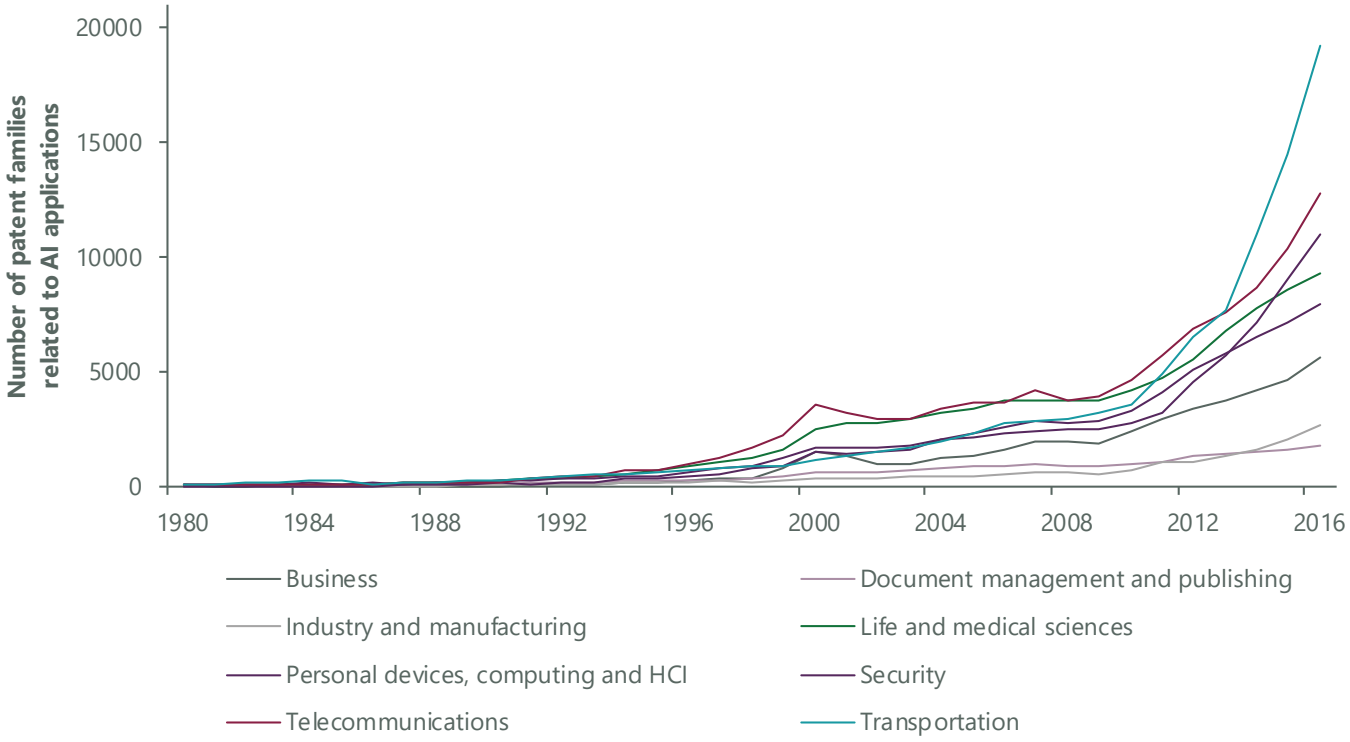
- A digital transition has made markets more productive — most of the time. But digital systems, like all systems, inevitably break down.
- We continue to believe that if you invest in a stock where price embeds expectations below future fundamentals, that price and value will converge as expectations catch up to realized fundamentals.
- With a recession already embedded in prices, wide valuation spreads are a great dynamic for an expectations-driven value investment process.

Artificial Intelligence and Complex Decision Making

As "software eats the world," it is dramatically altering the arena of human decision making. Human beings are increasingly interacting with the world through a digital interface whose job is often simply to allow humans to monitor the myriad decisions being made by software. This interaction of humans and machines has already changed our world in incredibly powerful ways. However, the pace of this digital cascade is accelerating, and at times it has the uncomfortable feel that we humans are just along for the ride (Exhibit 1).

Two areas where the transition to digital has been most intense is in the complex decision-making environments of aviation and investing. We have multidecade experience in both areas (including flying planes since the 1980s) and think this long-term experience is incredibly valuable, especially when it is combined with the power of modern digital tools. However, this experience requires constant learning, which we love, to stay relevant. Human relevance in both cases hinges on some critical questions. Specifically, what is the role of human decision making and judgment as software eats these two worlds, and what new risks are emerging as active decision-making processes are increasingly obscured by the black box nature of modern software?

Exhibit 1: Transition to Digital Increases Across Industries



Source: World Intellectual Property Organization Technology Trends 2019: Artificial Intelligence.

Thirty years ago, flying and investing were very much analog experiences, and there was a Newtonian directness and simplicity to both. Flight controls were physically linked to flight surfaces, and human interactions alone controlled a plane's movement. Similarly, market prices were determined directly through human interactions, with prices adjusted in fractional increments that were visible and easily computable by most investor brains. A good calculator combined with direct observation of the plane's movement or the ticker tape could take you a long way.

Now the world has been transformed by software. For both flying and markets, this digital transition has made things massively more productive and efficient — most of the time. The problem is those rare events when digital systems, like all systems, inevitably break down. The outcomes of these breakdowns are impossible to predict due to the complex and opaque nature of our relationship with digital tools. If anything, digital system failures amplify human errors. This has led some scientists, like David Krakauer at the Santa Fe Institute, to suggest we need to study artificial stupidity rather than artificial intelligence. It is critical that human judgment rise to the occasion when black box digital tools do occasionally lead us down the wrong path.

Digital tools have undoubtedly made flying safer and more routine. We have experienced this directly as digital tools now provide a level of flight planning, flight control and situational awareness unimaginable in, say, 1985, when we made our first solo flight. Digital has led to "fly-by-wire" systems that many manufacturers argue keep the airplane safe from pilot errors. There is validity to this argument, given the increase in flight safety, even as pilot training in many cases now skips over the occasionally invaluable airmanship skills of physically flying an airplane.

Unfortunately, the rare risk of a malfunctioning digital tool recently arose during the two 737 Max crashes. The official accident report is still not available, but it seems very likely that a bad digital sensor led to an overreaction of the Maneuvering Characteristic Augmentation System (MCAS). The MCAS is designed to keep the 737 Max from stalling by using trim (tabs on a plane's wing and tail used to stabilize the plane) to push the nose of the plane down, but the false stall signal, the MCAS's reaction, and pilot confusion led to a very tragic outcome. There will almost certainly be a software fix to the MCAS problem, but it is very likely properly trained pilots would have experienced the MCAS failure and countered it by simply switching off

electric trim. This would have been a simple solution if experience and training could allow you to recognize a digital system error, but an added challenge when you have flown only in a digital environment from day one, and the enabling tools work great over 99% of the time.

Digital Markets Are Still Driven by Fundamentals

The impact of digitization on markets is even more profound than the transformation of cockpits, albeit with much less dire outcomes when things go bad. Not only has technology allowed decimalization of prices and trading volume to explode, but the information emanating from and flooding back into markets has also exploded. This has changed the nature of markets profoundly, as the days of having an information advantage are long gone. The new challenge is trying to find an analytical or behavioral edge that amplifies a signal in an extremely low signal-to-noise and immensely complex environment. How do we tackle this challenge?

In many ways our active investment process has maintained a Newtonian robustness and simplicity, which, like the physics of flight, reflects causal fundamental drivers of investment returns. We continue to believe that if you invest in a stock where price embeds expectations below future fundamentals, that price and value will converge as expectations catch up to realized fundamentals. This means we must get future fundamentals more correct than what the market expects, which is no easy task. However, it can be done, and we are constantly looking to enhance our human judgment abilities with digital tools that help identify and measure expectations gaps. Finding truly exploitable gaps, however, requires a full appreciation for what software-guided markets do well, and occasionally don't do well.

When we began our careers there was arguably much more edge in investment markets as humans played a much bigger role in setting marginal prices. This led to more behavioral errors that were slower to correct: classic overreaction to bad news and underreaction to genuine surprises. Now we have prices being set in a digital world at a quantum-like scale that we cannot directly observe. However, like an autopilot making microsecond adjustments to flight surfaces, this digital pricing mechanism typically does an efficient job of pricing stocks. Good or bad news tends to get priced into stocks almost immediately by very short-term correlations that briefly capture the interplay between price and new information. In addition, the most frequent and abundant source of data is price itself, and this feeds the digital beast with constant feedback that drives market making through high-frequency trading.

Like creating fly-by-wire airplanes that eliminate pilot risk, investors are increasingly opting for passive portfolios that rely solely on the market autopilot to get prices roughly right. Given the superiority of a passive investment return in the S&P 500 Index over this market cycle, most investors now think that human judgment is not needed beyond the decision to get on the passive flight.

The problem is that markets, unlike airplanes, are not constrained by the laws of physics. Markets are a human invention, bounded only by how far the human emotions of fear and greed can take them. Investors have always followed market prices to chase past returns when making decisions, but this cycle, the power of price momentum has been amplified by several feedback loops. These have concentrated capital into a few areas, creating historic divergences between winning and losing stocks and asset classes. Crowded flights in the physical world are constrained by weight. Crowded asset classes may appear less constrained as they attract more capital, adding momentum to price and picking up speed and altitude.

As capital flows ultimately reverse, softly landing these crowded asset classes will require market liquidity that we don't think exists.

Ultimately, however, digitally amplified crowding is a major risk. Digital market makers are fantastic at optimizing around stable correlations over very short periods of time, but machines still cannot capture the big picture and use imagination to appreciate the risks of non-linear change when causal drivers reverse. Just as digital amplifies feedback on the way up, it will amplify it on the way down. As capital flows ultimately reverse, softly landing these crowded asset classes will require market liquidity that we don't think exists. This could create tremendous downside volatility, which could turn a smooth asset flight into a very turbulent one. People hate turbulence on flights, and downside market volatility will not feel any better.

An added risk factor is that central bank liquidity has starved the world of yield and pushed investors out on the risk curve to asset classes they are not truly comfortable with. Cash savers have been forced onto bond flights, bond investors have been pushed into junk bond and equity flights, and equity investors have crowded into high-flying momentum.

As a result, every asset class has been flooded with capital that will not tolerate the historic long-term volatility inherent to each asset class. Central banks will desperately try to keep capital in place and every asset flying smoothly, but the underlying realities of economic cycles, fundamentals and valuation will require a reset around real risk factors at some point.

Rotation from Momentum to Value Brief but Telling

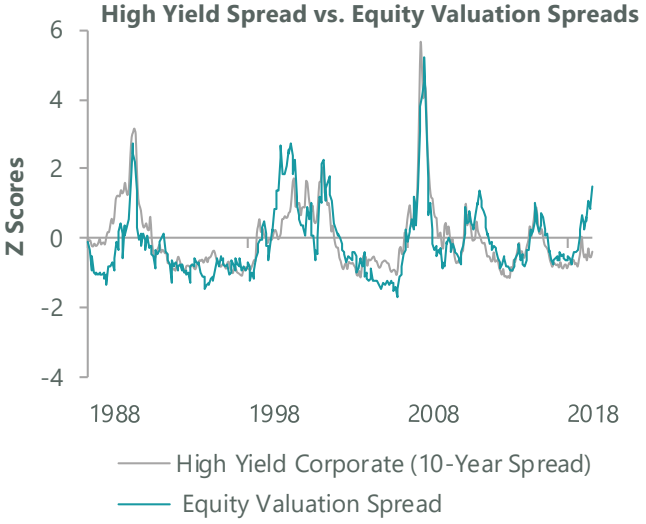
Thus the turbulence in early September, when a factor storm caused a sharp reversal between price momentum and value. Like clear-air turbulence, no one saw this coming, but there was a quick 10%+ shift away from the momentum factor in favor of the value factor. This shift did not persist, but it demonstrates that when the market reverses, several quarters worth of returns can be won or lost in a few days. This should be unsettling for investors in crowded asset classes.

As another example of a digitally derived market missing the big picture at the Newtonian market level, many value stocks have priced in a recession, with valuation spreads rising to a new non-recessionary high before the value reversal in early September.[1] This makes sense, as it seems likely we are in a global manufacturing recession, and the risks of an all-out recession are clearly rising. However, what does not make sense is that credit spreads have not followed valuation spreads in pricing in recession risk. Valuation and credit spreads have usually moved together (Exhibit 2). However, in what we think is a sign of the ongoing chase for current yield, valuation spreads have widened above credit spreads to a level not seen since the 2000 equity Internet bubble (Exhibit 3). If we were a macro hedge fund, we would be short credit and long value stocks. We can only do the second part of this trade, but at least we can take advantage of elevated valuation spreads.

Low Expectations Not Justified

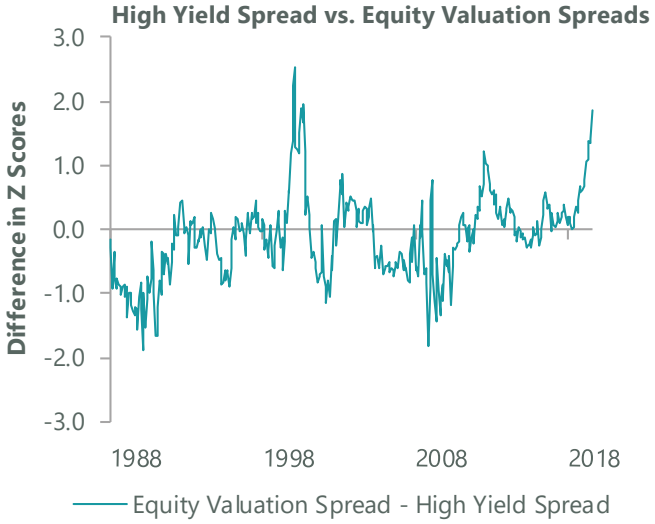
Wide valuation spreads are a great dynamic for an expectations-driven investment process, as it makes it possible to get paid handsomely for taking risk with a recession already embedded in prices. The real bonus, however, is that some value stocks are so out of favor in this digitally divergent market that it is possible to own stocks discounting a recession but with better fundamentals than the market. These stocks continue to have high free cash flow yields, good and growing

Exhibit 2: Valuation and Credit Spreads Usually Move Together



As of Aug. 31, 2019. Source: Empirical Research.

Exhibit 3: Valuation Spreads Now Reflect More Recession Risk than Credit Spreads



As of Aug. 31, 2019. Source: Empirical Research.

1 Valuation spread is a measurement of the cheapest 20% of the market and how cheap this value bucket is relative to the market average over time.

dividend yields and solid capital positions with no need for access to capital markets. In fact, many of them are paying down debt and building cash.

Synchrony Financial is a fascinating example of materially improving fundamentals against a distressed valuation, creating an opportunity for long-term and patient investors. On our math, the stock is currently embedding a 50%+ permanent decline in earnings power, giving credit for excess capital and fully accounting for the exit of Walmart from the Synchrony store card program. Belying this dismal implied outlook for the company is stable-to-improving credit, likely accelerating loan growth as initiatives with PayPal bear fruit next year, modest positive operating leverage, and material return of capital to shareholders in the form of dividends and buybacks. Share repurchase in particular is interesting as it crystalizes the gap between our assessment of fair value and where the stock trades, accentuating the upside in the name every quarter as the share count grinds lower (and faster than it should for a fairly priced equity).

Investors rightly point to the earnings risk in a recession and question the loss of the Walmart relationship. It is true that earnings will decline — temporarily — in a recession, but we believe the drop will be substantially less than anticipated by the current valuation. For one, the company has deliberately de-risked its loan portfolio, as evidenced by the improving loan loss rates in recent quarters. Additionally, removing the subprime Walmart portfolio from the mix reduces downside risk, while we believe from a macro perspective that the consumer will not be the nexus of the next downturn, leading to a much lower spike in loss rates than card companies saw during the 2008 cycle.

Some point to the loss of the Walmart portfolio as evidence that the company's offerings are not resonating as well with retail customers and that other large relationships are at risk. We believe this narrative to be patently false and point to the following evidence. First, Synchrony has renewed every other major relationship, including Sam's Club, which by the way is owned by Walmart. Second, it gained the PayPal receivables and has deepened its relationship with this leading payments company by providing credit for Venmo users. Amazon calls Synchrony a partner as well. The Walmart relationship was atypical — low point-of-sale penetration, low mix of overall retailer sales, low retailer interest in promoting the product — and as such not evidence of a problem but rather evidence of how difficult it is to have a successful store card for a company with Walmart's customer mix. No other major partner shares these attributes with Walmart.

Bottom line, Synchrony should compound earnings power into and through a recession, emerging with higher net income on the other side of a downturn than it is currently generating. This contrasts sharply with the -50% decline currently embedded, providing continued impetus to own the stock even as the cycle gets longer in the tooth.

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There are similar opportunities in health care, which as a sector has been painted with the broad brush of regulation fears, and where biotechnology companies face the risk of prescription drug pricing controls. Alexion Pharmaceuticals, for example, trades at a discount also due to two negative developments: a refusal to grant two patents on Soliris in Europe and the Patent Trial and Appeal Board's (PTAB) decision to review Amgen's contest against Soliris patent extension in the U.S. Absent a successful appeal in Europe, which Alexion will attempt, biosimilars could launch in Europe as early as 2022. In the U.S., if the PTAB decides against Soliris patent extension and if Alexion fails in appeal too, biosimilars might enter the U.S. market in 2022 onward.

However, Alexion's key strategy for defending the C5 inhibitor franchise is conversion to a follow-on drug, Ultomiris, which provides better efficacy and is significantly more convenient as it requires six infusions a year instead of 26. The company is targeting a similar conversion rate in EU vs. U.S. (70% in two years), and it has been successful in the early stages of conversion, which should extend the company's dominant position in the area even after the biosimilar entry. In addition, Amgen is the only company that is developing a Soliris biosimilar and the successful clinical development is not a given. Finally, Alexion is trading at a deep-value multiple of 9x forward earnings, more than reflecting the worst-case scenario for the Soliris biosimilar threat and giving no value to the pipeline. It also generates material growth: Alexion has been beating estimates for two years and has more than doubled earnings since 2016. A valuation so low for Alexion makes no sense and at some point, price and value should start to converge.

Active Judgment Has Value as Causal Drivers Shift Across Cycles

As a result, it is possible to have valuation metrics better than the market, but with fundamental characteristics also better than the market. There is

currently no trade-off for this, and all these positions are also publicly listed and liquid. In many ways a portfolio built like this is the antithesis of the failed WeWork IPO, which was massively free cash flow negative, highly indebted, dependent on external capital and inflated by an illiquid private market.

Whether in flying airplanes or actively managing portfolios, we think experience matters. Digital tools have been incredible additions to our lives and have greatly enhanced flying and investing. Ultimately, though, human judgment matters in an uncertain world, where things go wrong, and causal drivers shift across cycles. With many assets flying at elevated expectations levels and fueled by concentrated, but nervous capital, we remain focused on being both safe and cheap. We want to get paid for risk, but with well-capitalized businesses, where the future has the potential to exceed embedded expectations.

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- 26 years of investment industry experience
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