MODEL CAPITAL MANAGEMENT LLC

Coronavirus: This is a Bear Market

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Focus: U.S. Tactical Limit-Loss
Strategies: Tactical Growth, Tactical 2xGrowth, Tactical Income

This Is a Bear Market

Our equity model continues with a defensive position

Roman Chuyan, CFA March 15, 2020

- **Our fundamentals-based process has helped protect against the entire downturn so far.**
- **Stocks are cheaper, but economic factors are now negative, and so is the outlook for the S&P 500.**
- **I describe developing themes (earnings, economic) that might continue to pressure markets.**

Stocks resumed their plunge after a brief rebound in the first week of March. Crude oil price tumbled to its lowest since 2016, stirring worries about the energy sector, while epidemic-containment efforts curtailed activity in the travel, hospitality, and entertainment industries. The S&P 500 cratered 9.5% on Thursday in its worst day since the Black Monday of 1987, before rebounding by 9% the next day. All major US indexes entered bear markets, defined as over-20% decline from peak, thus terminating the preceding 11-year bull market. The S&P 500 index is now down 17% year-to-date, reversing a year's worth of gains. As bad as it looks, non-US equities have done much worse due to their consistent underperformance, now reversing their entire five-year gain.

US And Global Stocks, 1 Year

Source: Ycharts, as of 3/13/20. It is not possible for an individual to invest directly in the S&P 500 index. Fund performance is shown for illustration only. Model Capital does not currently hold any of these funds, but positions may change at any time without notice.

This is an interesting time, and I have a lot to write about. I'll first cover market trends (some very unusual), and then discuss emerging fundamental themes including economic and earnings.

But first, let me assure our clients that we continue to protect them against this downturn. The YTD returns in our Tactical Growth and Income strategies are low-positive from interest on short-term T-Bills. Our models gave signals to de-risk well ahead of the market plunge. In retrospect, our models did exactly what they were designed to do – an example of how our forward-looking process protects against a violent selloff such as this, while backward-looking models cannot. At this time, we continue with defensive positioning (see Equity Return Forecast).

Market Trends

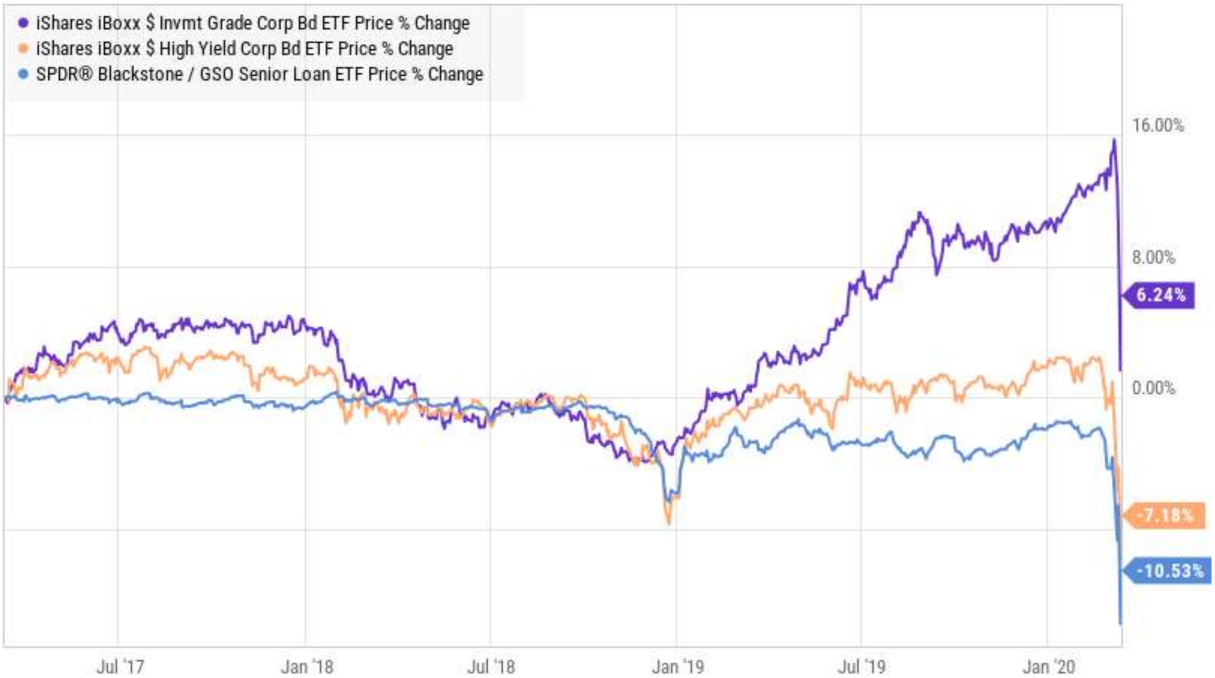
Years of bull market and an accommodative Fed encouraged overinvestment in risk assets – including stocks, but also high-yield and investment-grade bonds. Some took more risk than was appropriate for them, hoping to sell in time. But the warning memo never arrived. Now, many investors heading for the exit at the same time makes this selloff especially steep.

In stocks, "fear indicators" spiked to the levels of previous severe selloffs. The Put/Call ratio jumped to 1.83 on March 9 – nearly the same as its peak of 1.82 in December-2018. Implied volatility – the VIX – jumped to 75 on March 12, previously exceeded only in October-November of 2008. This is real fear.

S&P 500 & VIX, 2006-2020

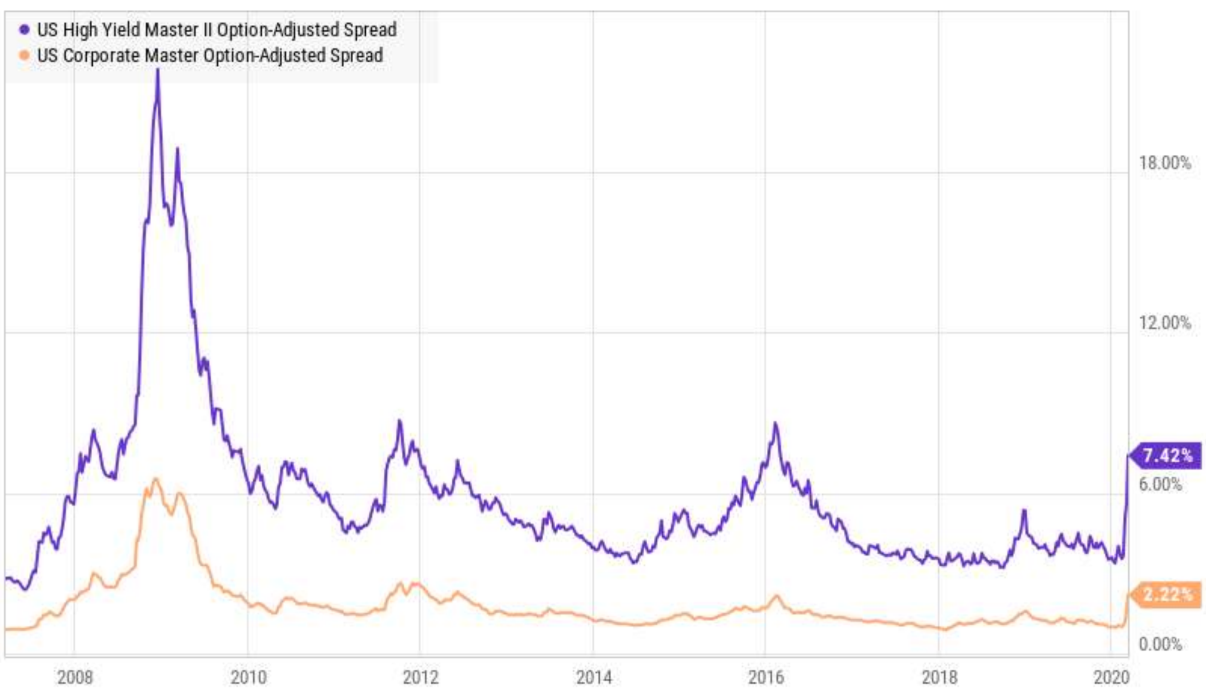
Corporate and high-yield bonds and loans also dropped sharply, now down 8-9% from their recent peaks (see chart on the next page). Expecting bonds to gain when stocks fell, some managers have expressed surprise. They wouldn't if they'd studied bear markets. While negative correlations hold in a "normal" environment, credit always sells off in severe downturns such as in 2008. That's why we've been holding US Treasuries.

Bond Price Returns, 3 Years



The corresponding credit spreads widened significantly, close to their previous "moderate" peaks in 2011 and 2016 – but not yet nearly to their 2008-09 levels:

Credit Spreads, 2007-2020



Finally, currencies moved in unusual ways. Emerging-market currencies had been falling for some time, and have now plunged to, or near, their all-time lows. During the rout, the Euro and the Yen rallied (the dollar fell). This was driven by an unwinding of hedge funds' "carry" strategies rather than by confidence in those economies. It appears that the unwinding has mostly run its course.

Fundamental Themes

As I've written previously, the problem is not just the coronavirus pandemic, but that it's happening amid a fragile macro environment. Valuation and leverage were extreme amid slowing global growth and flat earnings. The coronavirus containment efforts escalated quickly, and now affect everyday lives. Travel declined, schools and universities closed or moved online, events were cancelled, and companies sent people to work from home. Apple just announced closing all its retail stores outside China until March 27. All this puts pressure on economic activity – but we don't yet know how much. Economic data is available only with a lag. Among early indicators, consumer sentiment has begun to ease only modestly. Our equity model detects weakness in the Houses for Sale data – a similar pattern to that in 2007. JP Morgan now projects a US recession, expecting GDP to fall 2% in Q1 and 3% in Q2.

Economic projections follow markets. JP Morgan's recession warning could be correct, but it didn't precede this market plunge – it followed it. To inform our investment thesis and to add color to our model's forecast (see Equity Return Forecast below), we think about upcoming themes:

Earnings

Companies give guidance in analyst calls at the end of each quarter. Negative guidance was one reason for the market drop in Dec-2018, in my view – earnings began small declines in early 2019 from 13% growth in Q4-2018. Earnings for the current, first quarter of 2020 will likely be terrible. Not only travel and hospitality were hit by the epidemic; energy and materials were hit by plunging commodity prices, but broad weakness is likely across other sectors. This might initiate another wave of selling in late March.

Economic projections

Other major banks will likely follow JP Morgan in uttering the "R" word, which will create more negative sentiment and selling. Investors remember that bear markets set on in recessions.

Institutions

Hedge funds can move quickly, and were likely among the first to de-risk. Currency moves suggest that the carry trade is now reversed, and so are probably most net-long hedge fund strategies. However, other institutional selling has only begun. Trend-following, volatility-driven, and risk-parity strategies have de-risked by around half. Long-term money – pensions, endowments and foundations – tends to shift based on prevailing economic and earnings projections (which are now falling) and to act quarterly (end of Q1 is approaching). This wave of selling will be larger the worse economic and earnings projections look.

Coronavirus

The epidemic has continued to drive market moves ever since it first pricked the bubble. Global infections are now growing at about 10,000 per day. Aside from increased test availability, the quickening or slowing of its spread and any news of development of a vaccine or cure will continue to affect markets.

Finally, I'd like to shift focus to the long term. In my mid-December client report titled ***Welcome to the 2020's***, I described an environment with lower average returns and higher volatility, and with occasional sharp downturns – and the one now unfolding confirms this thesis. **Buy-and-hold strategies worked well during the 2010's bull market,** so it's understandable that investors didn't bother with downside protection. **We think that downside protection will be critical in the new environment. Looking back at the past month is not really a good reason to begin using us – looking ahead to the next 10 years *is*.**

Equity Return Forecast

The outlook for the S&P 500 by our fundamentals-based statistical model **remains moderately negative, which dictates continued defensive allocation**. Valuation measures are lower after the market plunge, and the model's valuation category turned positive. But this was mostly offset by the decline in the economic category, which is now negative. In each run, our model evaluates factors' statistical significance. Out of 24 factors, it leaves in the final equation only those factors that meet the minimum 95% confidence level. In this run, the model replaced two factors with three others: the P/E Ratio, Homes for Sale and Consumer Confidence.

6-Month S&P 500 Outlook:
Moderately Negative

Valuation (2 factors)

5.3%

Valuation improved after the market plunge. The Price-to-Book Ratio dropped to 2.75 from 3.3 last month. The effect of this factor is now 8.7% - the most positive factor in the model. The model switched-on the P/E Ratio, with initial effect of -3.4% due to weak earnings growth in recent years. Still, the market is now undervalued overall, for the first time since 2012.

Economic (5 factors)

-5.6%

As part of its regular factor rebalancing, the model replaced New Home Sales with Homes for Sale and Consumer Confidence. Homes for Sale came in at a negative effect, -9.2% - the model detects weakness in the data that preceded previous stock market drops.

Market (4 factors)

-0.7%

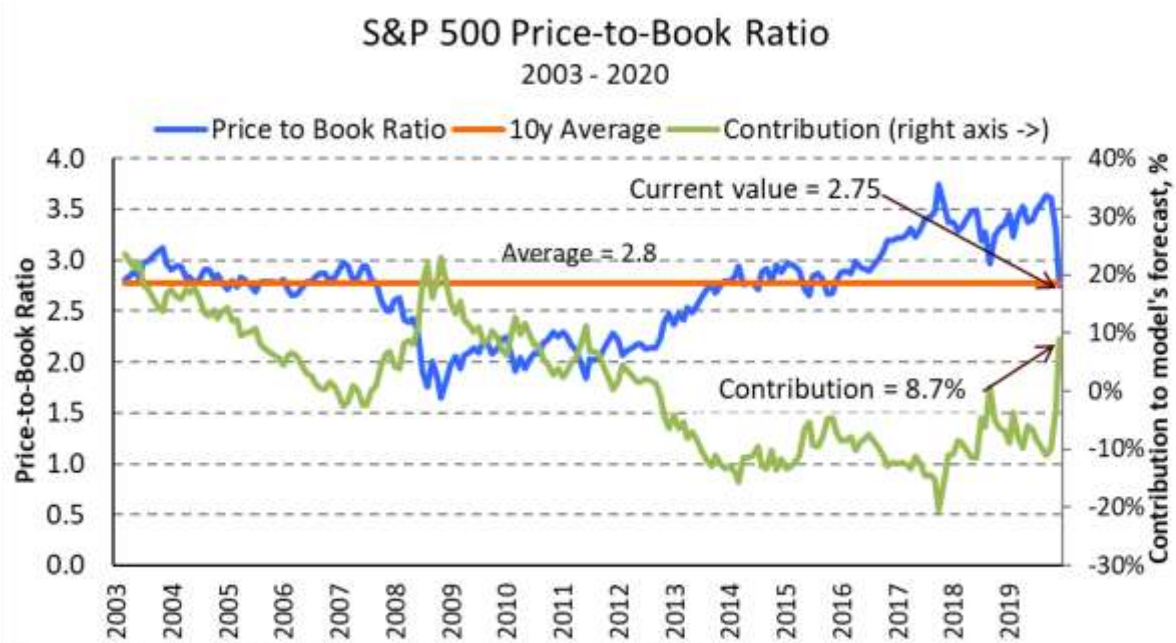
The effects of fund cash positions and interest rates improved this month. The model also switched-off AAII Investor Sentiment. As a result of all these, the combined effect of market factors improved from -2.4% to -0.7%.

Short-Term Risk

Model Component	Signal
Momentum	Neutral
Relative Strength (RSI)	Neutral
Volatility & RSI	Neutral
Investor Sentiment	Sell

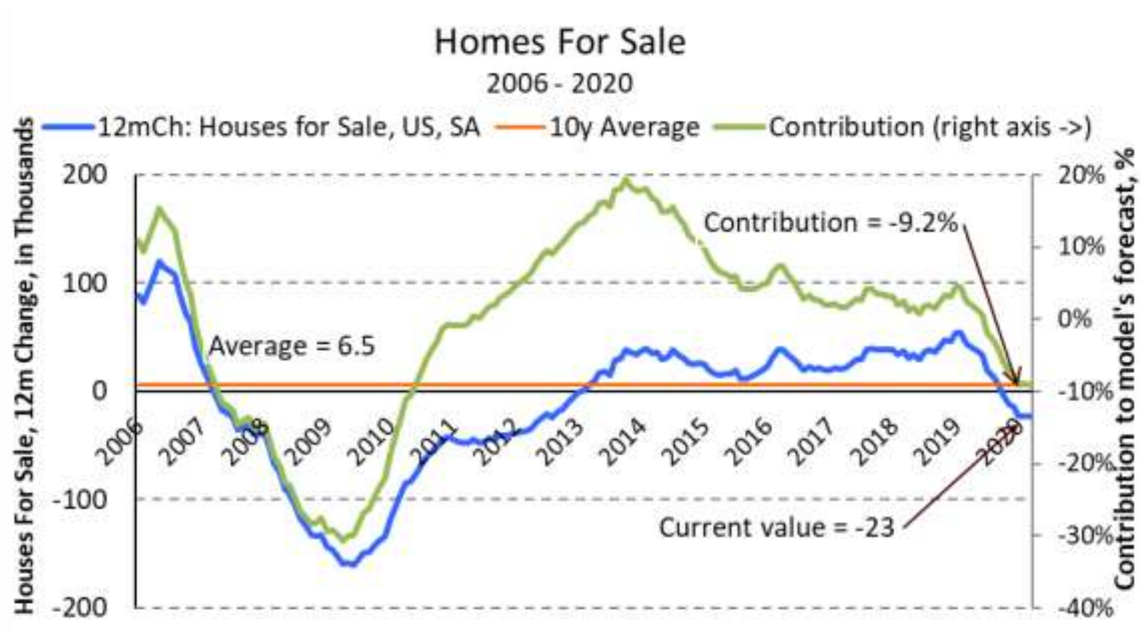
Our short-term risk model, which looks for technical patterns that preceded previous sharp market declines, continues with its Sell signal. The Investor Sentiment component of the model gave a Sell signal on Dec 23 due to extreme investor bullishness (a contrary indicator). Lasting for three months, this signal will likely end around March 31.

The equity model's most negative and positive factors are shown below in historical context (assuming their current weights). The Price-to-Book Ratio dropped to 2.75 after the market plunge, from 3.3 last month and compared with its mid-February peak of 3.7. The effect of this factor in the model jumped to 8.7%, and this factor switched from the most negative to the most *positive* in the model:



Sources: Standard & Poor's, Model Capital Management LLC

Homes for Sale began to decline in recent months on a year-over-year basis. Our model finds this factor to be negative for expected stock returns – a pattern similar to that in 2007. The model calculates the effect of this factor at -9.2%, and it becomes the most negative in our model.



Sources: U.S. Census Bureau, Model Capital Management LLC

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