Despite equity style rotation, still a risk-on market

Current 3-6 Month Equity Market Outlook:
Our tactical indicators remain little changed at solidly bullish readings: we maintain our overweight in stocks and underweight in fixed income. Our recommended weights are 70% stocks (10% overweight), 25% bonds (5% underweight) and 5% cash (5% underweight).

Stock/Bond Relative Valuation -- Market Implied Long-Run Growth:
The Implied Growth Model dropped sharply in June, now 2.2% and returning to near our fair value range. Even as stock prices rose, higher inflation, lower bond yields, and a lower equity risk premium all (as expected) pushed the model reading lower.

Small-Cap/Large-Cap Allocation:
Our Small-cap/Large-cap Model edged back to dead neutral readings on its six cyclical indicators. Mixed indicators and mixed relative returns give us little reason to move from our neutral stance on size yet.

Topical Macro and Policy: We highlight the contrast between low equity index volatility and the high volatility of relative returns of Growth and Value styles, which has likely been making relative performance for active equity managers much bumpier. We also discuss the patterns in inflation surprises globally, and the remarkable ongoing strength in earnings estimates in the US and Europe.

Table of Contents

<table>
<thead>
<tr>
<th>Table of Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity Market Outlook</td>
<td>2 - 3</td>
</tr>
<tr>
<td>Implied Growth Model</td>
<td>4</td>
</tr>
<tr>
<td>Small-Cap/Large-Cap Outlook</td>
<td>5</td>
</tr>
<tr>
<td>Macro Commentary</td>
<td>6 - 8</td>
</tr>
<tr>
<td>Appendix</td>
<td>9</td>
</tr>
<tr>
<td>Hypothetical performance tracking</td>
<td></td>
</tr>
<tr>
<td>Global Equity Risk Model background and components</td>
<td>10 - 11</td>
</tr>
<tr>
<td>Small-cap/Large-cap Model background and components</td>
<td>12 - 13</td>
</tr>
<tr>
<td>Implied Growth Model background and components</td>
<td>14</td>
</tr>
</tbody>
</table>
Indicators little changed, staying bullish on risk assets

At the risk of being slightly boring, the latest update of our Global Equity Risk Model (at right) shows little change from last month: it remains solidly bullish on risk assets.

Indeed, none of the eight component indicators showed a substantial movement since last month's report, with the overall model reading down just -1% at 72%. This remains well into the most bullish zone for stocks and other risky assets.

Equities have continued to perform well, with few meaningful pullbacks in the major equity indices. The S&P 500 continues to make new all-time highs, as does the Europe Stoxx 600 Index.

Equity volatility remains low, and price momentum in the MSCI ACWI index relative to volatility remains strong. So both risk (volatility) itself and risk-adjusted returns continue to be tailwinds on an intermediate-term basis.

Riskier corporate debt has maintained its performance relative to safer debt, and industrial metals have similarly maintained their gains relative to precious metals.

Both of these cross-asset performance trends are captured in the Equity Risk Model and remain bullish supports.

Risk appetite, as measured by our index of performance of the most volatile stocks globally, remains solid but slightly less elevated than earlier this year.

And as we discuss on the following page, even the two indicators in the model that are unfavorable (Fed Expectations and Global VIX Divergence) are arguably not as worrisome as they might initially seem.

Overall, the evidence remains in favor of overweighting equities relative to fixed income, and maintaining a tilt toward riskier areas of the market.

Exhibit 1: The Global Equity Risk Model again holds steady at bullish readings

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Current</th>
<th>1-month Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Equity Volatility</td>
<td>82%</td>
<td>1%</td>
</tr>
<tr>
<td>Global Risk Appetite</td>
<td>75%</td>
<td>-2%</td>
</tr>
<tr>
<td>Global Momentum</td>
<td>83%</td>
<td>0%</td>
</tr>
<tr>
<td>Global VIX Divergence</td>
<td>29%</td>
<td>-4%</td>
</tr>
<tr>
<td>Global Credit Risk</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Fed Expectations</td>
<td>18%</td>
<td>-3%</td>
</tr>
<tr>
<td>Global Real Yield</td>
<td>89%</td>
<td>-1%</td>
</tr>
<tr>
<td>Global Metals</td>
<td>96%</td>
<td>-1%</td>
</tr>
<tr>
<td><strong>Global Equity Risk Model</strong></td>
<td><strong>72%</strong></td>
<td><strong>-1%</strong></td>
</tr>
</tbody>
</table>
Even the weakest indicators are not really extreme

Having discussed some of the solidly bullish indicators in our model on the prior page and in recent reports, we can look more closely at the two that are currently unfavorable for risk assets.

The basic message is that the seemingly worrisome percentile readings on our indicators are somewhat skewed by the relative stability in both the short end of the bond market and the options market (implied volatility).

The Fed Expectations indicator (top chart at right) uses the spread between two-year Treasury notes and three-month Treasury bills as a measure of market expectations of future Fed interest rate policy.

We scale the 2yr/3m spread within its own recent (6-12 month) range to determine whether it is rising (signaling expectations of tighter policy) or falling (looser policy).

However, the last 16 months have been very unusual in that not only has the Fed kept short-term rates pinned near zero the entire time, investors have kept two-year notes very close to the short-term policy rate as well.

This means that investors have believed the Fed when it has indicated it will not raise rates for at least another year or two, and will give considerable warning when it does.

Thus the 2y/3m spread has been nearly flat near zero for over year, and the recent uptick in the spread looks larger in that context that it does in a longer-term context. So while investors have increased their expectations of future Fed rate hikes, the move has been very modest (less than one rate hike implied) and thus likely not a major issue for equities.

A similar story applies to the VIX Divergence indicator (bottom chart at right), where unusual stability in the implied versus realized volatility spread has meant that even moderate movements produce significant changes in the percentile score. Options data are certainly not as supportive (from a contrarian sentiment standpoint) as it was earlier in the year, but, like the Fed indicator, is perhaps less of a worry than it appears at the moment.
Our Implied Growth Model dropped quite sharply in June, ending 64bps lower than the previous month at 2.2%. This was expected, as discussed in recent reports, and brings the model much closer to our long-standing fair value range.

The implied growth reading fell sharply even though stock prices rose (about 2%) for three primary reasons:

- Our measure of the equity risk premium (versus corporate bonds) dropped 28bps in June.
- Bond yields declined substantially – Baa yields were down 21bps during June.
- Our inflation measure (smoothed core PCE price index) jumped 18bps on the month.

All three of these non-equity movements pushed the implied growth reading lower, such that it is now close to our long-standing fair value range of 1.5-2.0%.

The equity risk premium is based on the growth rate of the US Leading Economic Indicators (LEI). That growth rate has jumped from very negative readings to very positive readings as the economy has rebounded from last year’s COVID-driven weakness. We use smoothings and scaling to reduce the volatility of the risk premium calculation, but the broad message is clear: the economy is less risky for stocks now than it was last year (thanks in large part to aggressive stimulus and vaccinations).

Reported inflation has similarly jumped from its depressed levels last year, and even with our smoothing has made a substantial rise recently. Higher inflation has the effect of reducing our estimated real bond yield.

And indeed the nominal corporate bond yield also declined during the month, increasing the effect of falling real yields within the model.

**Overall, stocks still look fairly valued relative to corporate bonds in our view -- the market’s implied future growth expectations are not excessively high.**

See page 14 in the Appendix for background information on the Implied Growth Model and a long-term chart of the component inputs.

Source: Mill Street Research, Factset, Bloomberg
Our Small-cap/Large-cap Model has moved back to a dead neutral reading, reflecting cyclical indicators that remain mixed.

Relative performance of small versus large-caps has been similarly mixed recently, with no strong trend.

Thus we remain neutral on size allocation for now.

As we have noted in this space in recent reports, the extraordinary impacts of COVID-19, stimulus, vaccinations, and market activity have caused some cyclical indicators to move quickly to "later cycle" readings while others remain in "early cycle" territory.

Our model assumes that "early cycle" conditions are likely to be most favorable for small-cap relative performance, while "later cycle" conditions tend to favor large-caps.

Stock prices and the stock/bond yield spread clearly moved into "later cycle" readings favoring large-caps several months ago.

Trailing two-year earnings growth for the S&P 500 remains in early cycle territory but likely will shift soon as reported earnings capture the dramatic recovery in corporate earnings this year.

Consumer confidence also remains in early cycle territory, with readings still below their pre-COVID levels on average, but now improving. Thus we might expect a shift in that indicator before long as well.

The Rate/Credit indicator favors large-caps right now, but has been oscillating around its signal threshold recently as its two components are largely offsetting each other. Rates are low (a typical early-cycle support for small-caps), but credit spreads are about as low as they can go (a typically late cycle condition).

Overall, the "easy money" in small-cap relative performance has likely been made for now, and the coming months may see more choppy, range-bound returns in small-cap/large-cap relative performance.

See pages 12-13 in the Appendix for background information on the Small-cap/Large-Cap Model and charts for all six component indicators.
Market volatility vs style volatility

Equity market volatility has been declining this year and has recently been below the long-run average. However, under the surface of the calm at the major index level, style rotation between Growth and Value has been extremely high.

The top chart at right plots two rolling volatility series: the top section is the six-month annualized volatility of the S&P 500 index, while the bottom section is the volatility of the daily difference between the S&P 500 Pure Growth and Pure Value index returns.

The volatility of Growth/Value relative returns remains extremely elevated compared to historical norms, recently rivaling the prior peaks in the 2008-09 period and 2000-01 period. Notably, the current rolling six-month readings overlap with a steady, low-volatility advance in the overall US equity market.

High volatility in Growth/Value style performance is likely causing headaches for some active equity portfolio managers, as most cannot switch between styles quickly (if at all), and thus must endure alternating bouts of beating or lagging the overall market.

If relative returns are more volatile than usual, what about relative fundamentals? Our aggregated sector estimate revisions data (bottom chart at right, top section) comparing cyclical (Value-oriented) sectors with Growth sectors continues to show a historically strong bias toward Value-oriented sectors relative to Growth.

Perhaps this extreme tilt in revisions has increased debate about whether “this is as good as it gets for Value fundamentals” (i.e., time to buy Growth), or “Value lagged for a long time and now has powerful fundamental tailwinds, stay with the Value trend”.

Our current view continues to support a tilt toward Value/Cyclical sectors, but with the knowledge that heavy rotation makes it a bumpy ride.

Source: Mill Street Research, Factset, Bloomberg
Inflation surprises have risen, most dramatically in the US

This week has brought a new round of upside surprises on reported inflation in the US, following on similar above-consensus readings in recent months. This has kept alive the debate about whether inflation is likely to be transitory or persistent among both investors and policy makers.

The chart below shows historical monthly readings for the Citigroup Inflation Surprise indices (as distinct from the Economic Surprise indices). A few key points stand out:

- Upside inflation surprises are happening globally, reflecting the global nature of COVID-19 and supply chain disruptions.
- The highest readings by far are in the US, both on an absolute basis and relative to the readings over the last 22 years.
- Europe has the least extreme readings in its historical context: the latest figures are still well below several previous peaks.
- Emerging Markets are the lowest readings in absolute terms, but have tended to have low or negative readings for most of the available history. Only the 2008 period was higher for emerging markets.

The US clearly remains the focus of most of the inflation debate, and this is not surprising given that the US has employed the most aggressive fiscal and monetary stimulus of any major country and has vaccinated a relatively large share of its population, allowing re-opening to occur faster than in many other areas and thus increasing demand pressures.

Exhibit 6: Inflation surprises are elevated globally, led by extreme readings in the US

Source: Mill Street Research, Factset, Bloomberg
Extraordinary rise in estimates remains in place

While there are certain conditions visible in the market that raise concerns about excessive optimism and speculation, in our view the underlying support for the powerful gains in stock prices is still coming from rising earnings estimates.

Our measures of earnings estimate revisions breadth and magnitude in the US (and globally) remain at historically high readings. This means a large proportion of analysts are still raising estimates (breadth, red line, top chart) and they are raising by significant amounts (magnitude, blue bars).

This has typically occurred in the early stages of a new economic cycle after a recession, so the pattern is not unexpected. But the extent of the increases is extraordinary, and reveals how big the influence of stimulus programs and COVID re-opening have been. It also captures to some degree the conservative assumptions used by analysts after COVID hit last year, which is not surprising given the lack of guidance from companies and the historically unusual extent of the fiscal and monetary stimulus efforts. The net result is that consensus now calls for 2022 earnings to be about $211/share for the S&P 500 (middle chart at right), leaving the current P/E multiple just under 21x next year’s EPS (or a 4.8% expected earnings yield).

While the US has had the strongest revisions readings, Europe is also seeing aggressive increases in earnings estimates. The figures for the Stoxx 600 index are shown in the bottom chart at right. We see that 2021 estimates have risen dramatically this year, and are in fact now approaching the pre-COVID levels of year-end 2019. The 2022 estimates are well above pre-COVID levels, and indicate an expected P/E of about 16.5 (an expected earnings yield of about 6%).

Given the continued depressed levels of bond yields globally, stocks have little competition from fixed income. And if investors are concerned about inflation, then equities are a better inflation hedge than bonds (since nominal earnings typically rise with inflation).

Overall, while stocks have had big gains, there has been fundamental support for those gains so far. We will continue to watch for signs of a shift.
Hypothetical Performance Tracking

The charts and tables below show indicative hypothetical tracking results for the allocation recommendations published in this report. See important disclosures below.

GLOBAL ASSET ALLOCATION (STOCKS/BONDS/CASH)

The charts and tables below show indicative hypothetical tracking results for the allocation recommendations published in this report. See important disclosures below.

GLOBAL ASSET ALLOCATION Summary Statistics

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Recommended Portfolio</th>
<th>Benchmark Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 January 2019 - 13 July 2021</td>
<td>14.42</td>
<td>16.81</td>
</tr>
<tr>
<td>Ann. Return (%)</td>
<td>11.68</td>
<td>11.99</td>
</tr>
<tr>
<td>Ann. Volatility (%)</td>
<td>1.13</td>
<td>1.30</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>0.98</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Results assume allocation to the ACWI index (ETF ticker ACWI), US long-term Treasury bonds (ETF ticker TLT) and US cash-like holdings (ETF ticker SHV) relative to a benchmark of 60% stocks, 30% bonds, 10% cash, as published for the date range indicated. Always use caution in interpreting results for short time periods.

US SMALL-CAP/LARGE-CAP ALLOCATION

Results assume 100% investment in large-caps (Russell 1000, ETF ticker IWB) or small-caps (Russell 2000, ETF ticker IWM) or the 50/50 large/small benchmark as published for the date range indicated.

Note: Results shown here do not reflect any actual trading and are for informational purposes only. They do not include important considerations such as transactions costs, taxes, fees or other expenses. Past performance is no guarantee of future results.

Source: Mill Street Research, Factset, Bloomberg
The Global Equity Risk Model is a composite of eight individual indicators designed to forecast returns and risk for high-risk versus low-risk assets over the next three to six months. We focus on stocks versus bonds but other high vs. low-risk asset pairs typically follow similar patterns.

Each of the eight indicators generates a percentile (0-100%) reading, with 100% being the most favorable for high-risk assets. The final model reading is an equally-weighted average of the eight percentile scores. High indicator readings tend to forecast both higher returns and lower volatility for risky assets. The eight indicators are comprised of four equity market-derived indicators and four cross-asset indicators from fixed income and commodity markets. The charts below show the most recent three years of data, but the model’s history extends back to 1992. Additional information is available on request.

Source: Mill Street Research, Factset, Bloomberg
Indicator Appendix

GLOBAL EQUITY RISK MODEL (CONTINUED)

Global Credit Risk Indicator
- MSCI ACWI Index Total Return USD
- Global Baa Corp. Bond Option Adjusted Spread
- Global Credit Risk Indicator

Fed Expectations Indicator
- MSCI ACWI Index Total Return USD
- US Treasury 2-year/3-month Yield Spread
- Fed Expectations Indicator

Global Real Yield Indicator
- MSCI ACWI Index Total Return USD
- Est. Global 10-year Yield: US, UK, Germany
- Weighted Average of US, UK and German Estimated Real 10-year Government Bond Yields
- Global Real Yield Indicator

Global Metals Indicator
- MSCI ACWI Index Total Return USD
- GSCI Industrial/Precious Metals Relative Price
- Global Metals Indicator

Source: Mill Street Research, Factset, Bloomberg
The Small-cap/Large-cap Model is a six-indicator composite using market and economic inputs designed to help identify the stage of the US market/economic cycle. It is based on the idea that small-caps have tended to outperform most reliably in the early stages of a new cycle (coming out of a trough) while large-caps tend to outperform later in a cycle, especially on a risk-adjusted basis. Each of the six indicators has either one or two threshold levels which identify periods favorable for small-caps, large-caps, or neutral readings. The final model reading is the net proportion of signals favoring small-caps.

As a cyclical model, it forecasts relative returns of small-caps versus large-caps on a six- to 12-month horizon, which some signals lasting significantly longer. The charts below show the most recent five years of data, but the model’s history extends back to 1986. Additional information is available on request.

Source: Mill Street Research, Factset, Bloomberg
Indicator Appendix

SMALL-CAP/LARGE-CAP MODEL (CONTINUED)

Source: Mill Street Research, Factset, Bloomberg
The Implied Growth Model uses market data and valuation theory to estimate the equity market's current implied long-term real earnings growth expectations. We compare expected returns for equities with those of corporate bonds to derive this estimate, which we can then compare to our economic outlook to gauge whether equities are priced for future earnings growth that is consistent with our economic expectations or not.

A very high implied growth rate could mean one of two things: economic and corporate profit growth will in fact be very strong in subsequent years, or investors are overly optimistic and equity prices are too high relative to corporate bond yields. A very low implied growth rate could have the reverse interpretations: either growth will in fact be very low, or equities are undervalued relative to corporate bonds. Thus the implied earnings growth rate can be used as a way to analyze the valuation of equities relative to bonds.

The chart at right plots the full history of the Implied Growth Model and its primary components.

The top section plots the real (inflation-adjusted) Bloomberg Barclays Baa-rated long-term corporate bond yield (blue line), adjusted using the smoothed yearly change in the core Personal Consumption Expenditures (PCE) Price Index, and the cyclically adjusted S&P 500 earnings yield (red line), which is based on trailing 10-year average operating EPS adjusted to current dollars.

The second section plots the difference between the real bond yield and the earnings yield. The third section plots the estimated equity risk premium over corporate bonds, which is based on the growth rate of the US Leading Economic Indicators. Weaker expected economic growth corresponds to a higher equity risk premium.

The bottom section plots the result of the model’s calculations, which is an estimate at each point in time of the market’s implicit forecast of long-run (20+ year) future average annual real earnings growth. In the long run, real earnings growth should approximate the growth in real GDP, with allowances for global influences, structural policy changes, etc.

Additional information available on request.
Important Disclosures and Certifications

The research provided in this report is based on strategic analysis provided by Mill Street Research LLC ("Mill Street"), an investment adviser registered with the Massachusetts Securities Division. Strategic analysis is based on fundamental, macroeconomic and quantitative data to provide investment analysis with respect to the securities markets. The report is not intended to provide personal investment advice. This report does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such offer or solicitation would be prohibited. The securities mentioned in this report may not be suitable for all types of investors. This report does not take into account the investment objectives, financial situation or specific needs of any particular client of Mill Street. Recipients should consider this report as only a single factor in making an investment decision and should not rely solely on investment recommendations contained herein, if any, as a substitution for the exercise of independent judgment of the merits and risks of investments. Mill Street has no actual, implied or apparent authority to act on behalf of any issuer mentioned in the report. Employees of Mill Street may have positions in securities mentioned in this report, disclosures are available on request. Before making an investment decision with respect to any security recommended in this report, the recipient should consider whether such recommendation is appropriate given the recipient's particular investment needs, objectives and financial circumstances. We recommend that investors independently evaluate particular investments and strategies, and encourage investors to seek the advice of a financial advisor. Mill Street will not treat non-client recipients as its clients solely by virtue of their receiving this report. Past performance is not a guarantee of future results, and no representation or warranty, express or implied, is made regarding future performance of any security mentioned in this report. The price of the securities mentioned in this report and the income they produce may fluctuate and/or be adversely affected by exchange rates, and investors may realize losses on investments in such securities, including the loss of investment principal. Mill Street accepts no liability for any loss arising from the use of information contained in this report. All information, opinions and statistical data contained in this report were obtained or derived from public sources believed to be reliable, but Mill Street does not represent that any such information, opinion or statistical data is accurate or complete (with the exception of information contained in the Important Disclosures and Certifications section of this report), and they should not be relied upon as such. All estimates, opinions and recommendations expressed herein constitute judgments as of the date of this report and are subject to change without notice. Nothing in this report constitutes legal, accounting or tax advice. Since the levels and bases of taxation can change, any reference in this report to the impact of taxation should not be construed as offering tax advice on the tax consequences of investments. As with any investment having potential tax implications, clients should consult with their own independent tax adviser. This report may provide addresses of, or contain hyperlinks to, Internet web sites. Mill Street has not reviewed the linked Internet web site of any third party and takes no responsibility for the contents thereof. Each such address or hyperlink is provided solely for the recipient's convenience and information, and the content of linked third party web sites is not in any way incorporated into this document. Recipients who choose to access such third-party web sites or follow such hyperlinks do so at their own risk. The market indices mentioned in this report are unmanaged, hypothetical portfolios of securities that are often used as a benchmark in evaluating the relative performance of a particular investment, as constructed by the index providers. Index return figures do not reflect any fees, expenses or taxes. An index should only be compared with a mandate that has a similar investment objective. An index is not available for direct investment, and does not reflect any of the costs associated with buying and selling individual securities or management fees. This report or any portion hereof may not be reprinted, sold, or redistributed without the prior written consent of Mill Street.

Copyright © Mill Street Research LLC  2021