MILL STREET RESEARCH

PORTFOLIO STRATEGY

October 13, 2023

Sam Burns, CFA Chief Strategist

Indicators say stay with stocks as oversold conditions ease

Current 3-6 Month Equity Market Outlook:
Our Global Equity Risk Model slipped somewhat further since last month, but is still net bullish, with stocks and bonds both hitting oversold levels recently. We remain overweight in stocks (+15% vs benchmark), underweight in bonds (-15% vs benchmark), and benchmark (10%) in cash.

Stock/Bond Relative Valuation -- Market Implied Long-Run Growth:
The Implied Growth Model edged up a bit more to 1.9%, near the high end of our expected fair value range of 1.5-2.0%. Relative valuations are thus more balanced now than they have been in recent years, but still favor stocks over bonds in our view.

Small-Cap/Large-Cap Allocation:
Our Small-cap/Large-cap Model took another step in favor of large-caps with the latest update. We continue to favor large-caps over small-caps on a cyclical basis, confirmed by recent price action.

Topical Macro and Policy: After reviewing the US inflation outlook last month, we discuss the US labor market. Most labor indicators have been easing gradually and are back near the high end of pre-COVID ranges, offering little inflation concern now. We also review the longer-term trends in index earnings for various major indices, highlighting that fundamental differences can explain much of the return differences among the NASDAQ-100, S&P 500, S&P 600, and MSCI Emerging Markets indices.

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Model holding up despite recent risk-off action, staying overweight stocks

Our Global Equity Risk Model dipped a bit further since last month, but remains net bullish despite the market's recent pullback. Amid a developing reversal from near-term oversold conditions in stocks and bonds, we maintain our overweight stance in stocks.

The MSCI ACWI index had risen about 18% for the year-to-date as of July 31st, and had since given back about half of that move as of the most recent low on October 4th.

This is not an unusual pattern in equity markets, and was driven largely by the severe sell-off in bond prices (higher yields) over that period. From July 31st to October 4th, the yield on the Bloomberg Global Aggregate 10+ Year Bond Index surged 72 basis points to its highest level since July 2009.

The result has been further deterioration in the equity price momentum component of the Global Equity Risk Model (right), as well as some corresponding weakness in the Global Risk Appetite indicator. The decline in our index of the most volatile stocks globally reflects the recent "risk off" behavior among investors.

The model has also seen further moderation in the Fed Expectations indicator (reflecting the Fed's "higher for longer" stance) and Global Real Yield indicator (reflecting the lagged impact of earlier increases in global real yields).

The only notable improvement among the model's eight indicators has been the Global Metals indicator. It captures the recent bounce in industrial metals prices relative to precious metals prices, though it is unclear if that trend will be sustained.

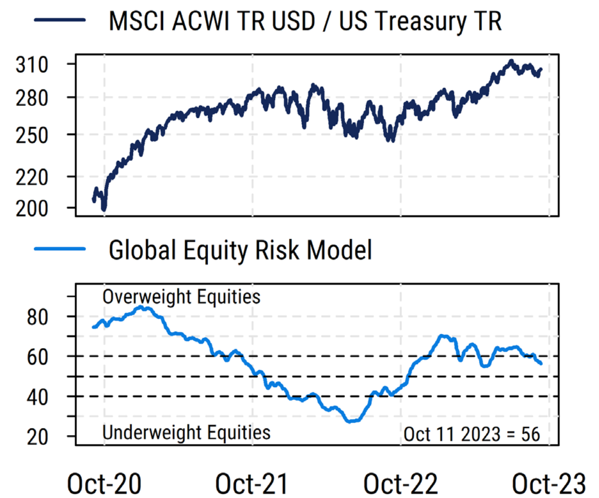
On the continuing positive side, the Equity Volatility and Credit Risk indicators have mostly held up well, reflecting the lower equity volatility and moderate credit spreads seen this year relative to last year.

Overall, the weaker trend indicators are concerning, but with oversold conditions developing (e.g. VIX Divergence and price technicals, next page), earnings holding up well, and somewhat less hawkish Fed commentary lately, we think stocks can recover into Q4 and thus keep our overweight stance intact.

Exhibit 1: Global Equity Risk Model has dipped further but maintains net bullish readings.

Global Equity Risk Model Indicators
11 Oct 2023

Indicator	Current	1-month Change
Global Equity Volatility	91%	-1%
Global Risk Appetite	52%	-22%
Global Momentum	18%	-20%
Global VIX Divergence	58%	4%
Global Credit Risk	87%	-2%
Fed Expectations	47%	-8%
Global Real Yield	42%	-9%
Global Metals	56%	31%
Global Equity Risk Model	**56%**	**-3%**



Source: Mill Street Research, Factset, Bloomberg

See pages 9-10 in the Appendix for background information on the Global Equity Risk Model and charts for all eight component indicators.

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Price momentum has weakened, but stocks and bonds have recently been oversold

Here we briefly comment on the current messages from some of the components of the Equity Risk Model. All the charts for the individual indicators are always on pages 9-10.

The big question when reviewing our Equity Risk Model indicators and tactical market view is **whether the pullback in stock prices in August/September is the start of a new downtrend or a correction in an intermediate-term uptrend.**

The correction has been sharp enough to bring down our measures of equity index price momentum and risk appetite, and slightly ding the credit risk input. But as noted last month, the intermediate-term trend does not look to have been broken in our view. This is also (still) reflected in the fact that the longer-term (90-trading-day) momentum input to the Global Momentum indicator (purple line, bottom chart) is hovering near zero, even as the shorter-term measures are sitting at moderately negative readings.

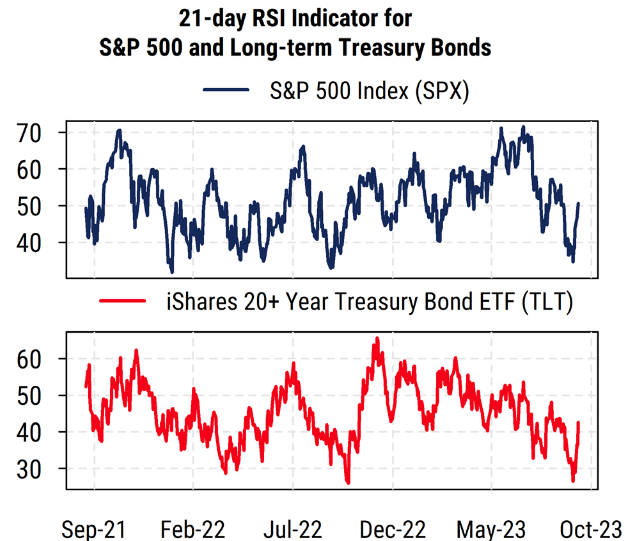
But as shown in the top chart at right, both US stocks (S&P 500) and US long-term bonds (the TLT bond ETF) reached intermediate-term oversold readings on the RSI (Relative Strength Index) technical price indicator. The readings were similar to levels seen in October 2022, and have since begun to reverse upward.

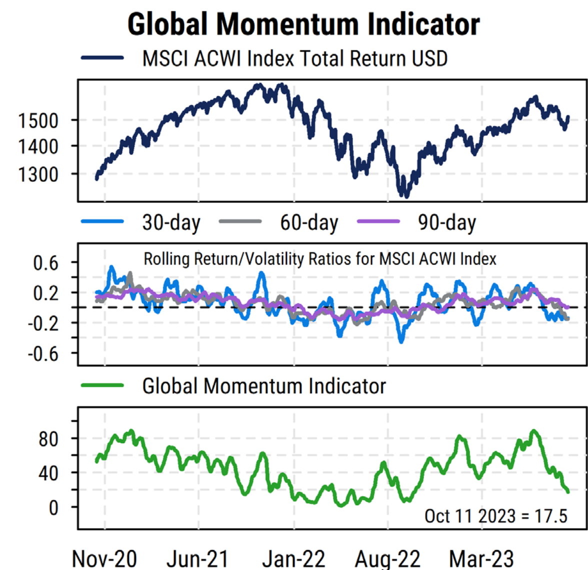
Since it seems clear that the main reason for the pullback in stocks was the sharp sell-off in bonds, then any relief from selling in bonds should allow stocks to rebound as well. Earnings trends remain relatively good so far, with Q3 earnings reports just getting underway.

With equity volatility still moderate, the Fed shifting its rhetoric towards "wait and see", and earnings holding up despite tighter monetary policy, **our view is that stocks are likely starting a rebound from oversold conditions after the seasonally weak August/September period.**

With our model still net bullish (above 50%), we give the benefit of the doubt to the upside in stocks and maintain our overweight stance for now.

Exhibit 2: As momentum indicators fade, both stocks and bonds reached intermediate-term oversold conditions and are starting to rebound





Source: Mill Street Research, Factset, Bloomberg

Implied growth now near upper end of fair value range after surge in real yields

The Implied Growth Model has risen somewhat further again, now close to the upper end of our expected fair value zone of 1.5-2.0%.

Stocks are still favored over bonds in our view, but higher real bond yields mean relative valuations are less compelling now than they have been.

Since last month's update, stock prices have pulled back about 2%, but the big move has been the continued surge in bond yields. From its most recent low on July 19th, the long-term Baa corporate bond yield has jumped from 5.73% to 6.48%, a 75bp move, with much of it coming in September and early October.

While our smoothed core inflation measure got revised slightly higher after recent historical updates from the Bureau of Economic Analysis, the trend remains one of gradual slowing in inflation (grey line, bottom chart at right). This should keep real bond yields elevated (all else equal) as reported inflation normalizes in the coming months.

The S&P 500 normalized equity earnings yield of about 3.6% (using trailing 10-year inflation-adjusted index EPS of $158.06) is not high but is slightly above (cheaper than) the five-year average and in line with the pre-COVID 2018-19 average.

So both stocks and bonds have better absolute return potential now than they did at the end of 2021, and implied long-run real EPS growth of around 1.9% does not seem excessive in our view. And while our long-standing fair value range of 1.5-2.0% remains in place, the actual growth rate of real S&P 500 EPS over the last 20 years has been above 4%. The rolling 20-year trendline growth rate of real EPS has been above 3% since 2000, so our fair value range could be conservative.

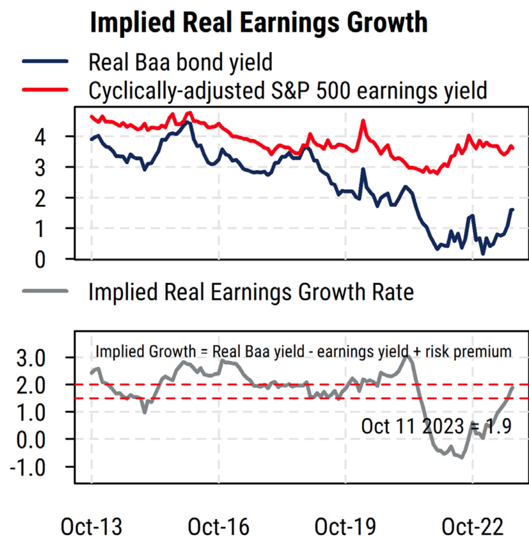
We therefore view stocks as at least fairly valued versus bonds, and expect the rise in real bond yields to at least pause soon if not pull back as the Fed's policy stance is now more fully priced in. While less supportive now, we do not view relative valuation as a major headwind for stocks to continue outperforming bonds.

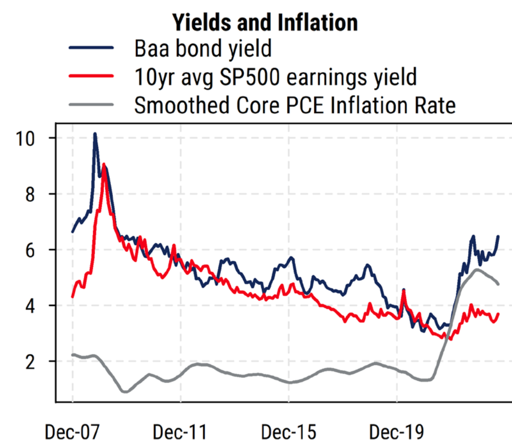
See page 13 in the Appendix for background information on the Implied Growth Model and a long-term chart of the component inputs.

Exhibit 3: Surging real bond yields have pushed implied growth to the upper end of our fair value range

Mid-cycle S&P 500 EPS = $158.06
Inflation = 4.88%
Equity Risk Premium = 3.89%

Baa Corporate Bond Yield	S&P 500				
	4177	**4277**	**4377**	**4477**	**4577**
5.73	0.96	1.05	1.13	1.21	1.29
5.98	1.21	1.30	1.38	1.46	1.54
6.23	1.46	1.55	1.63	1.71	1.79
6.48	1.71	1.80	1.88	1.96	2.04
6.73	1.96	2.05	2.13	2.21	2.29
6.98	2.21	2.30	2.38	2.46	2.54
7.23	2.46	2.55	2.63	2.71	2.79





Source: Mill Street Research, Factset, Bloomberg

Model's large-cap tilt now more clear

After shifting in favor of large-caps last month, our Small-cap/Large-cap Model has taken another step in the same direction with this month's update. **The model is now more decisively favoring large-caps based on its cyclical inputs, and we maintain our large-cap bias.**

The model's six indicators (table, right) now show three favoring large-caps, two neutral, and only one favoring small-caps.

Two signals shifted with the latest update: the VIX Index indicator shifted from small-caps to large-caps, while the Earnings Growth indicator moved partly the other way, from a large-cap signal to neutral.

The VIX indicator is (unsurprisingly) the most sensitive of the six inputs. The recent equity market pullback brought with it a jump in the VIX volatility index, leaving the VIX now above its own six-month average. Historically, rising market volatility (VIX above its recent average) has been a headwind for small-cap relative performance.

The partial offset of the VIX signal was the shift in the Earnings Growth indicator (bottom chart, right). It is based on the trailing two-year growth rate of S&P 500 index earnings as a measure of overall corporate earnings growth.

The idea behind the indicator is that very strong corporate earnings growth rates tend to occur later in an economic or market cycle, while low (or negative) growth rates tend to be found around economic troughs. The post-COVID jump in earnings growth has faded, moving the indicator's signal to its neutral zone (two-year growth between 0-25%).

With earnings turning back up again now amid a continued unusual economic cycle, the signal may not reach the zone favoring small-caps, but could remain in its neutral zone a while longer.

The model's indicators based on short-term rates and credit spreads remains in favor of large-caps, as does the indicator based on nominal stock/bond yield spreads. Only Consumer Confidence remains in favor of small-caps. Thus we keep our large-cap bias in place.

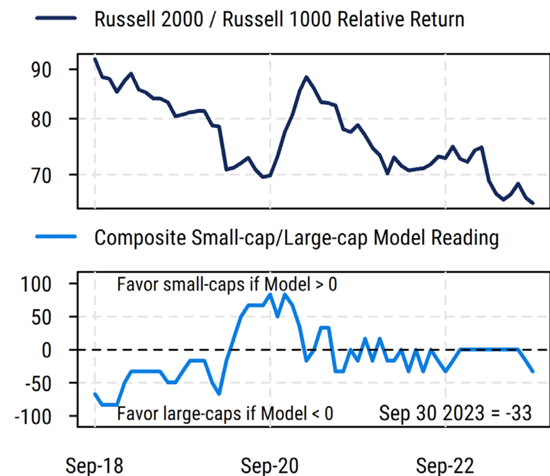
See pages 11-12 in the Appendix for background information on the Small-cap/Large-Cap Model and charts for all six component indicators.

Exhibit 4: Small-cap/Large-cap Model's shifts further in favor of large-caps

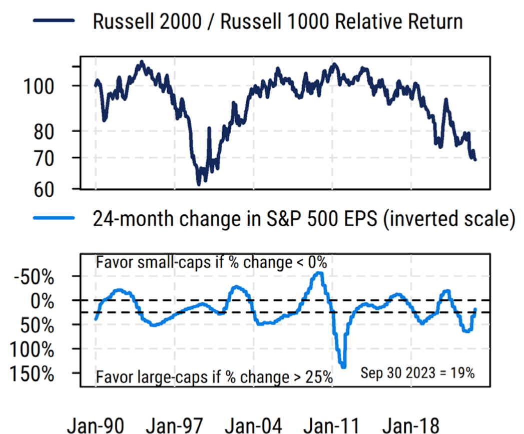
SMALL-CAP/LARGE-CAP INDICATORS

Indicator	Reading	Last Change
Consumer Confidence	Small-Caps	31-Aug-2021
Earnings Growth	Neutral	30-Sep-2023
Equity Market Oscillator	Neutral	31-Aug-2023
VIX Index	Large-Caps	30-Sep-2023
Rate/Credit Indicator	Large-Caps	30-Jun-2022
Stock/Bond Yield Spread	Large-Caps	28-Feb-2021
Net % Favoring Small-Caps	**-33%**	

COMPOSITE SMALL-CAP/LARGE-CAP MODEL



Earnings Growth Indicator



Source: Mill Street Research, Factset, Bloomberg

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US labor market still solid but not "overheated", near pre-COVID levels

In last month's report we reviewed the US inflation picture, and highlighted the fact that after accounting for the lagged housing cost inputs to the CPI (and PCE), inflation is already at or near the Fed's target. Commodity price trends corroborate this view.

This month we look at the US labor market, which is often thought to be a source of inflation pressure, but the historical evidence for that is weak.

The key point from various labor market data points is that conditions remain solid (continued job growth and wage growth) but no longer "overheated" as it appeared during the post-COVID re-opening/stimulus period in 2021-22.

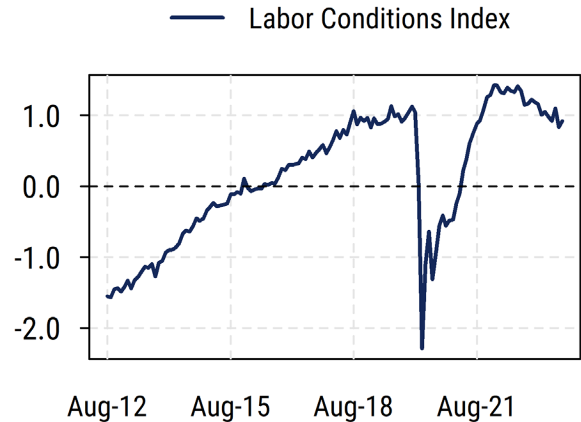
The Kansas City Fed produces a Labor Market Conditions Index that aggregates 24 labor market variables, with zero reflecting the long-run average for the variables as a group. Positive readings indicate a stronger-than-average labor market, and that is what we have seen since early 2021. The index has, however, been gradually easing from its peak (top chart, right), and is now back at levels seen in 2018-19 when few were concerned about excessive labor market strength.

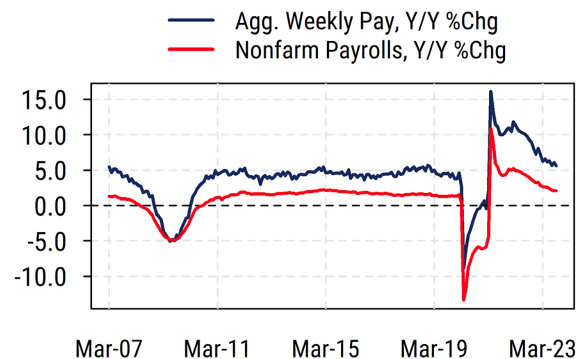
Wage growth is also still high but rapidly slowing. The Atlanta Fed's median wage growth tracker is more accurate than the average hourly (or weekly) wage figures because it tracks individual earnings over time, which removes distortions from compositional effects. It peaked at 6.7% wage growth and is now down to 5.2% (as was seen in the late 1990s). It is likely to continue to ease even as the unemployment rate remains low.

Another measure of employee pay is derived from the monthly employment data. The aggregate weekly pay series puts together the growth in the number of jobs, the average hourly wage, and the number of hours worked each week. Its growth rate has also been slowing, and is very close to the growth rates near 5% seen in much of the 2011-2019 period. Growth in nonfarm payrolls alone is also still elevated but slowing.

Overall, the picture is one of gradually slowing labor market growth that should not produce inflation pressure or worry the Fed at this point.

Exhibit 5: Labor market indicators have eased back near 2018-19 levels, with wage growth following along.





Source: Mill Street Research, Factset, Bloomberg

Earnings trends driving longer-term relative equity performance

Much has been made about the outperformance this year of the NASDAQ-100 index and the small number of mega-cap US stocks that have led the major indices, even as smaller-caps have lagged. This topic has come up frequently in recent years, and extends globally to the outperformance of the US (or developed markets generally) relative to Emerging Markets.

In each case, the outperformer is viewed as having done so mostly as a result of valuation expansion and overly optimistic investor sentiment, with the implication that the outperformance is excessive and relative returns will mean revert.

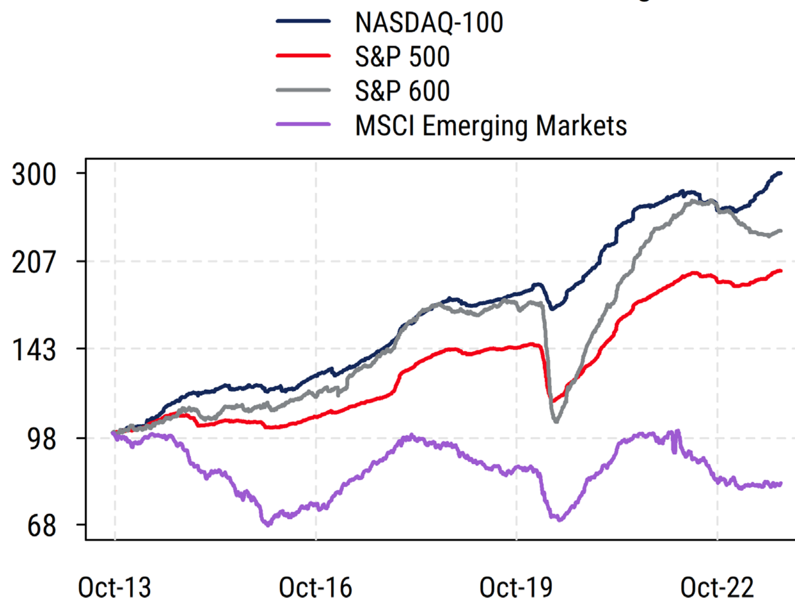
We can look at the longer-term trends in earnings using rolling forward 12-month EPS estimates to track historical and current expectations, and see that **there is generally a fundamental reason for the stronger indices to have outperformed the weaker ones.**

Among the NASDAQ-100, S&P 500, S&P 600 (small-cap), and MSCI Emerging Markets indices, as shown in the chart below where each index's NTM EPS estimates are indexed to 100 as of October 2013, we can see the following:

- The NASDAQ-100 has had the best earnings growth over the last 10 years, with forecasted EPS at new all-time highs.
- The S&P 500 has also done well, but less so than the NASDAQ-100, with current EPS expectations just now exceeding its earlier peak.
- The small-cap S&P 600 has had a somewhat better long-run increase in forward EPS than the S&P 500, but most recently has seen its EPS lag the larger-caps (still well off the earlier highs), consistent with recent index relative performance.
- The MSCI Emerging Markets index, in stark contrast, has seen EPS decline by about 20% from the level of 10 years ago, still well below its most recent peak, and showing no improvement in the last year.

The index returns have not matched the EPS changes precisely, but **the general earnings pattern over the last decade and the last year aligns with the index return pattern**. Emerging Market stocks have lagged and are cheaper than US stocks for a fundamental reason, and the NASDAQ has likewise outperformed the S&P for a reason. This is why we track earnings estimate changes so closely, and can avoid too often mistaking "cheaper" as "better" in cross-index comparisons.

Exhibit 6: There is a reason why some markets or indices have done better than others



Source: Mill Street Research, Factset, Bloomberg

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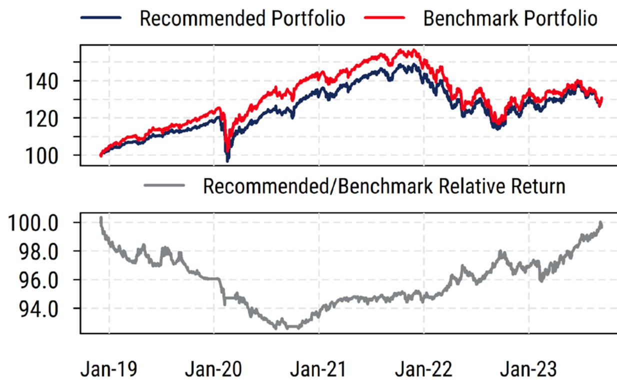
Hypothetical Performance Tracking

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)

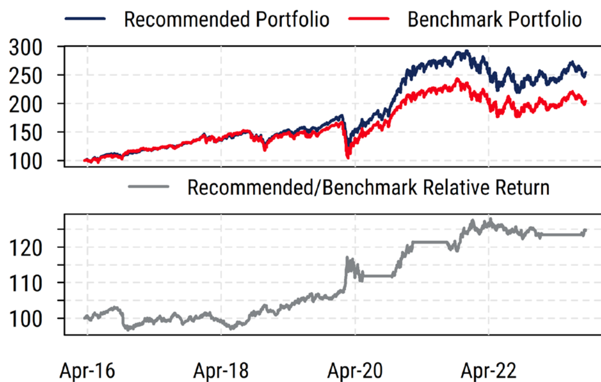


Global Asset Allocation Summary Statistics

01 January 2019 - 11 October 2023	Recommended Portfolio	Benchmark Portfolio
Ann. Return (%)	5.51	5.59
Ann. Volatility (%)	11.70	12.00
Sharpe Ratio	0.34	0.34

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



US Small vs Large-Cap Allocation Summary Statistics

13 April 2016 - 11 October 2023	Recommended Portfolio	Benchmark Portfolio
Ann. Return (%)	12.81	9.62
Ann. Volatility (%)	19.56	20.18
Sharpe Ratio	0.59	0.41

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

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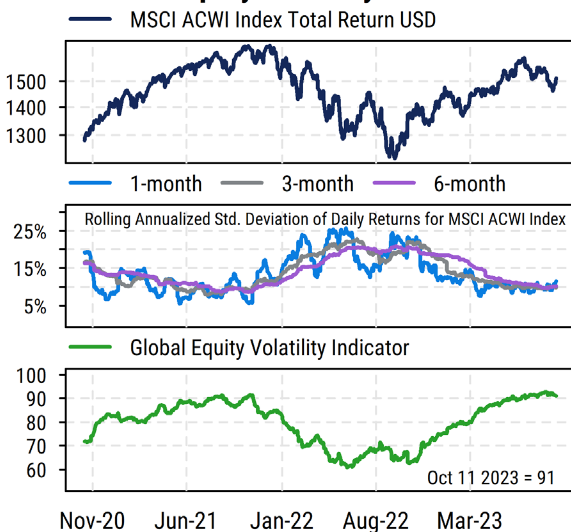
Indicator Appendix

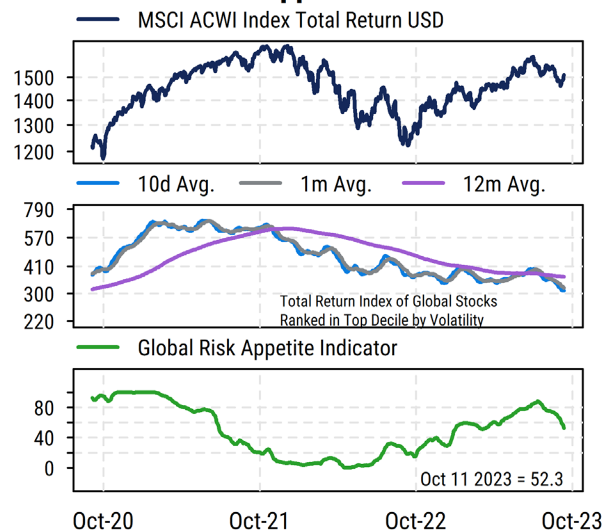
The charts below show all of the component indicators of the Global Equity Risk Model (eight indicators) and Small-cap/Large-cap Model (six indicators) for reference.

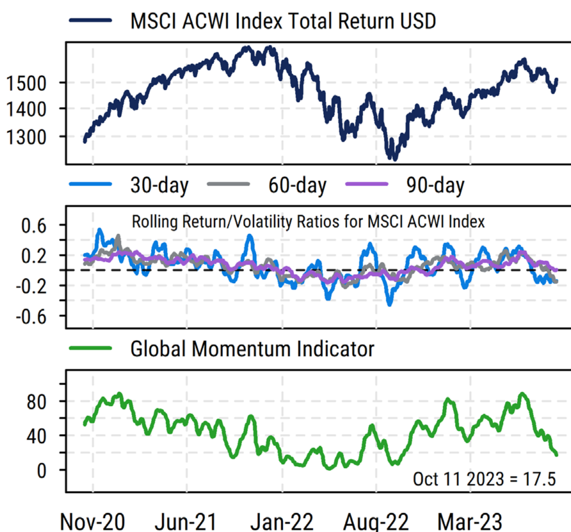
GLOBAL EQUITY RISK MODEL

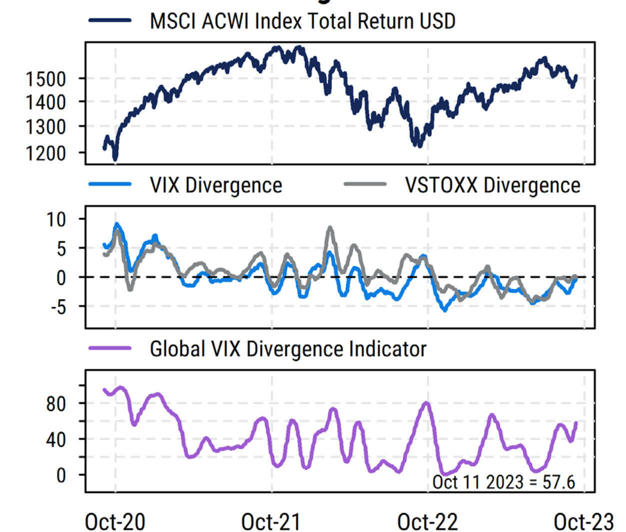
The Global Equity Risk Model is a composite of eight individual indicators designed to forecast returns and risk for high-risk versus low-risk assets over the next one to six months. We focus on stocks versus bonds but other high vs. low-risk asset pairs typically follow similar patterns.

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.***





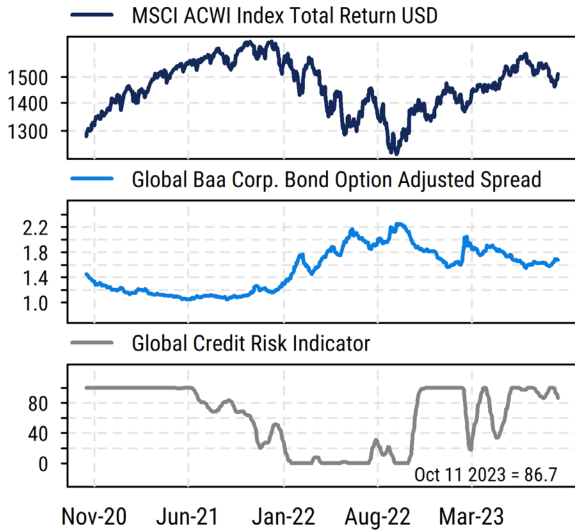


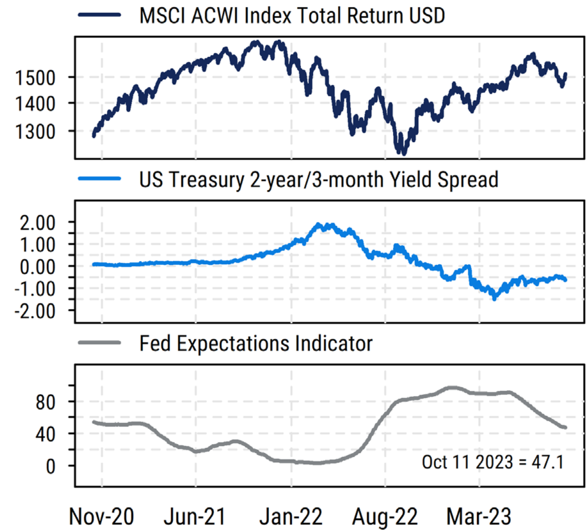


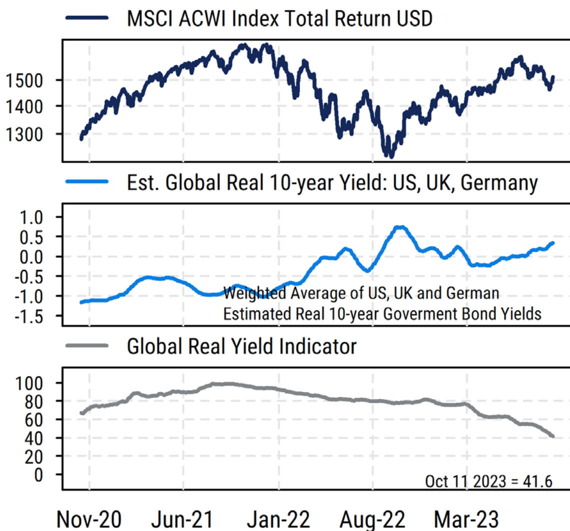
Source: Mill Street Research, Factset, Bloomberg

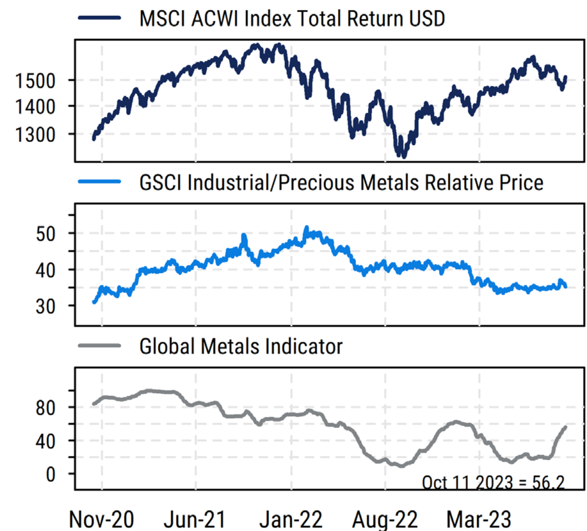
Indicator Appendix

GLOBAL EQUITY RISK MODEL (CONTINUED)









Source: Mill Street Research, Factset, Bloomberg

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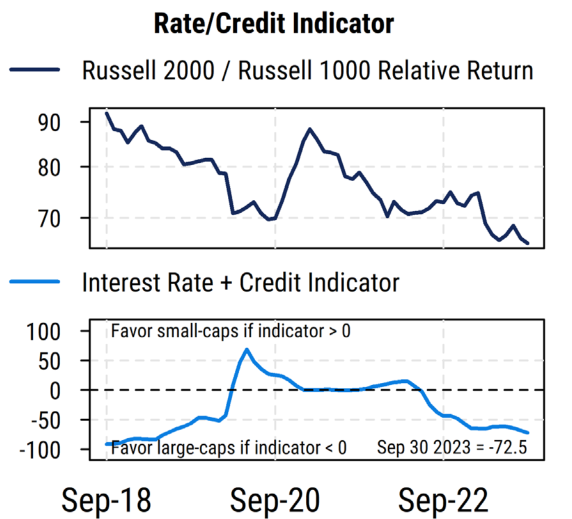
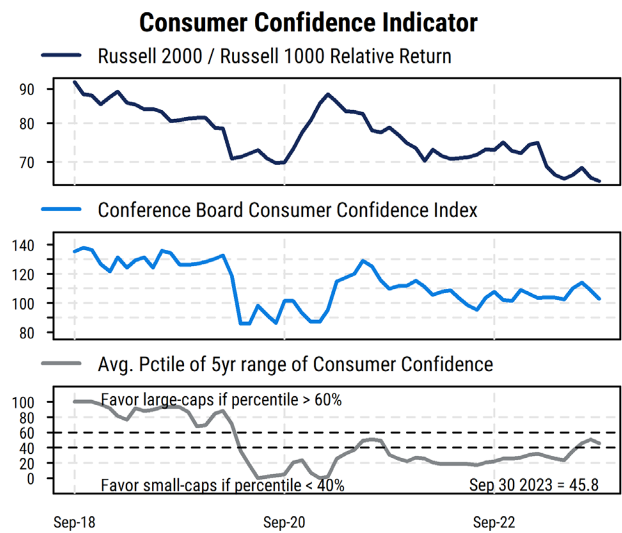
Indicator Appendix

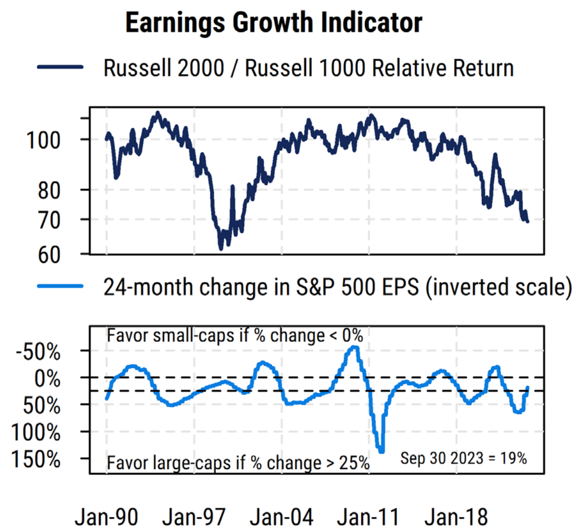
SMALL-CAP/LARGE-CAP MODEL

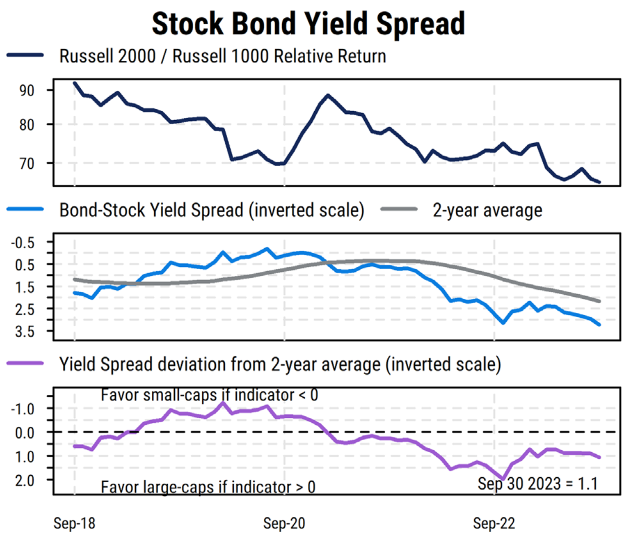
The Small-cap/Large-cap Model is a six-indicator composite using market and economic inputs designed to help identify the stage of the US market/economic cycle. It is based on the idea that small-caps have tended to outperform most reliably in the early stages of a new cycle (coming out of a trough) 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

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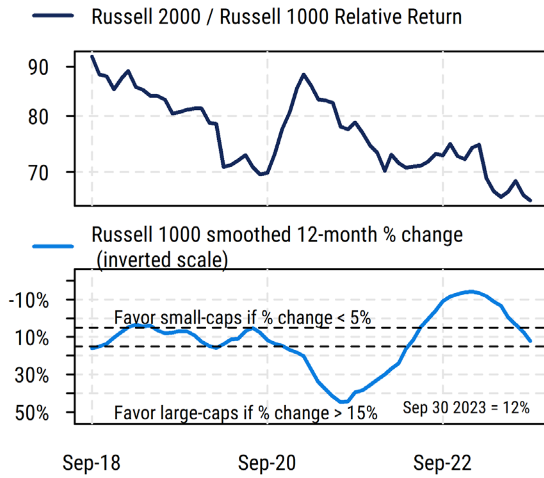
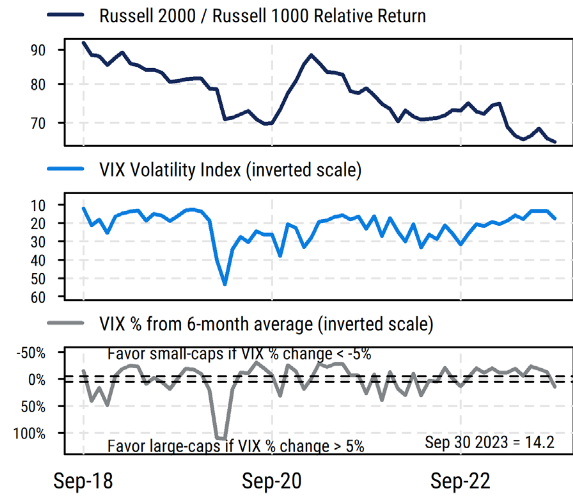
Indicator Appendix

SMALL-CAP/LARGE-CAP MODEL (CONTINUED)





Source: Mill Street Research, Factset, Bloomberg

Indicator Appendix

IMPLIED GROWTH MODEL

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.

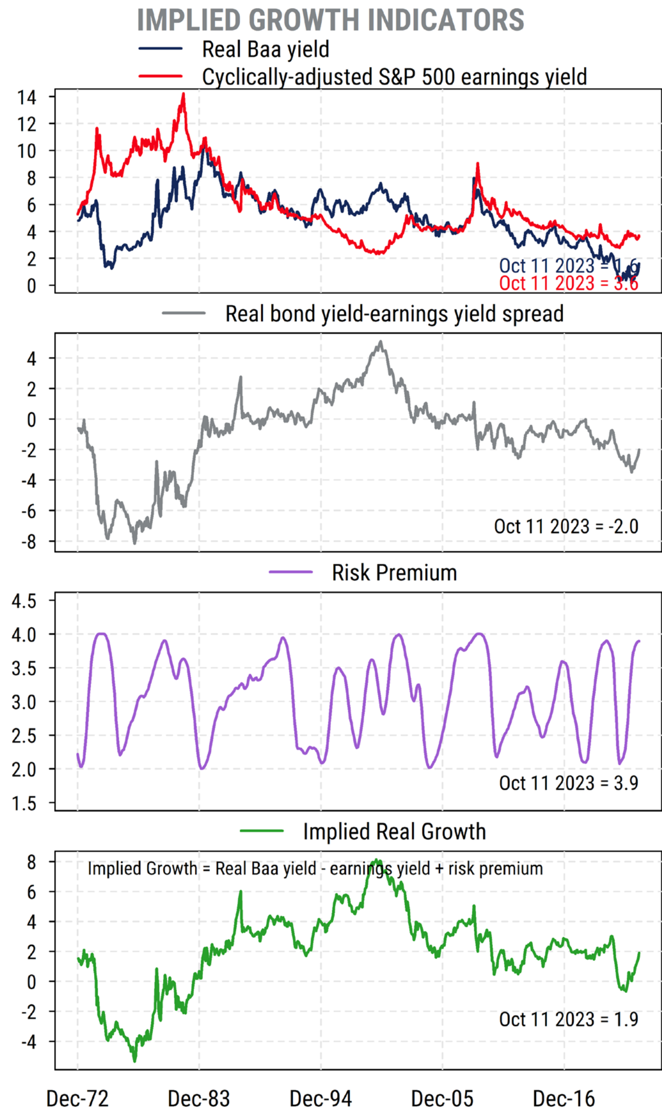
A very high implied growth rate could mean one of two things: economic and corporate profit growth will in fact be very strong in subsequent years, or investors are overly optimistic and equity prices are too high relative to corporate bond yields. A very low implied growth rate could have the reverse 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.



Source: Mill Street Research, Factset, Bloomberg

Additional information available on request.

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