Madison INVESTMENTS

MULTI-ASSET SOLUTIONS TEAM UPDATE: 03.16.2020

Patrick Ryan, Head of Multi-Asset Solutions, shares his perspective on Madison's Multi-Asset portfolios and the recent volatility in the markets.

The capital markets are experiencing a level of volatility not seen since the 2008 financial crisis. We believe that data and information over the coming weeks will assist us in assessing the potential economic impact to the U.S. and global economy brought on by the COVID-19 Coronavirus. We are closely monitoring the Coronavirus outbreak and its continued spread in the U.S. and across the world. Our portfolios were defensively positioned entering this market downturn and our relative performance has been favorable to both our peers and blended benchmarks.

A 1-2 punch for markets, the sell-off has been driven by:

- ONE, the COVID-19 pandemic has caused a massive global economic disruption with forced quarantines, travel bans and the widespread cancellation of social events. The magnitude and duration of the damage remains difficult to quantify as the virus continues to spread across the U.S. and the rest of the world.
  - 2020 FactSet earnings growth expectations have declined by 3% to +6.4% year over year, and the forward Price-to-Earnings (P/E) multiple has declined to 14.3x from 18.2x since 12/31/2019.
- TWO, a fracture in relations between Saudi Arabia and Russia resulted in a Saudi pledge to slash oil prices and ramp up production, sending already falling oil prices down another 20% in short order. The price of WTI crude oil is down over 50% since its recent 1/6/2020 peak of $64.
  - The price war intensified already heightened economic concerns.
  - Credit markets, which had been relatively calm, were hit hard, especially high yield, where energy makes up roughly 14% of the index. As of this writing (3/16/2020), the average high yield spread over Treasuries has jumped to 726 basis points (bps) from 336 bps on 12/31/2019.
  - The credit market disruption has spilled over into further equity declines, with the S&P 500 falling over 15% since the Saudi announcement.

Market returns (through 3/16/2020) since the 2/19/2020 S&P 500 peak:

- S&P 500 Index -29.4%; Russell 2000 Index -38.6%; MSCI EAFE Index -29.2%; MSCI EM Index -24.4%; Bloomberg Barclays US Agg Bond Index +1.2%; Bloomberg Barclays Corp High Yield Index -12.7%; Bloomberg Barclays Long Term US Treasury +13.9%

Our below benchmark equity exposures (generally 85-90% pre-selloff), our higher than normal cash balances, and long-term US Treasury holdings have all aided in buffering the downside. As painful as the past few weeks have been, we feel valuations are being restored and opportunities are starting to emerge. Our excess cash holdings provide us the ability to act quickly once we believe the time is right. And the Coronavirus containment in China/Asia has been encouraging. We sincerely appreciate your confidence in Madison and remain fully focused on your long-term investment success.

ABOUT MADISON'S MULTI-ASSET SOLUTIONS TEAM

The Madison Multi-Asset Solutions Team manages a suite of asset allocation portfolios across the potential risk tolerance spectrum. Portfolio managers Patrick Ryan and David Hottmann have deep experience monitoring worldwide macroeconomic trends and their associated investment implications. Risk management and a commitment to consistency are key components of our philosophy and process. We believe that efficient asset allocation and downside volatility mitigation will lead to increased long-term client investment success.

Consider the investment objectives, risks, and charges and expenses of Madison Funds carefully before investing. Each fund's prospectus contains this and other information about the fund. Call 800.877.6089 or visit madisonfunds.com to obtain a prospectus and read it carefully before investing.

"Madison" and/or "Madison Investments" is the unifying tradename of Madison Investment Holdings, Inc., Madison Asset Management, LLC ("MAM"), and Madison Investment Advisors, LLC ("MIA"), which also includes the Madison Scottsdale office. Hansberger Growth Investors, L.P. or "HGI" is an affiliate of "Madison Investments." MAM, MIA and HGI are registered as investment advisers with the U.S. Securities and Exchange Commission. Madison Funds are distributed by MFD Distributor, LLC. MFD Distributor, LLC is registered with the U.S. Securities and Exchange Commission as a broker-dealer, and is a member firm of the Financial Industry Regulatory Authority. The home office for each firm listed above is 550 Science Drive, Madison, WI 53711. Madison's toll-free number is 800-767-0300.

Any performance data shown represents past performance. Past performance is no guarantee of future results.

Non-deposit investment products are not federally insured, involve investment risk, may lose value and are not obligations of, or guaranteed by, any financial institution. Investment returns and principal value will fluctuate.

This report is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security.

All investments contain risk and may lose value. Equities may decline in value due to both real and perceived general market, economic and industry conditions. Investing in foreign-denominated and/or -domiciled securities may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets.

While Madison constructs portfolios for various risk tolerances, its Multi-Asset Solutions Team does not determine individual client's risk tolerance or investment objectives.

Price-to-Earnings Ratio (P/E)measures how expensive a stock is. It is calculated by the weighted average of a stock's current price divided by the company's trailing 12-month (TTM) earnings per share of the stocks in a portfolio.

Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only, and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

S&P 500® INDEX: Widely regarded as the best single gauge of the U.S. equities market, this world-renowned index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the S&P 500 focuses on the large-cap segment of the market, with over 80% coverage of U.S. equities, it is also an ideal proxy for the total market.

Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

MSCI ACWI ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets countries (excluding the US) and 23 Emerging Markets countries. With 1,843 constituents, the index covers approximately 85% of the global equity opportunity set outside the US.

MSCI Emerging Markets Index captures large and mid cap representation across 24 Emerging Markets (EM) countries. With 1,138 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The MSCI EAFE (Europe, Australasia & Far East) Index is a free-float adjusted market capitalization index that is designed to measure developed market equity performance, excluding the U.S. and Canada.

The MSCI EM Index is used to measure equity market performance in global emerging markets. The index captures mid and large caps in 26 countries including China, India, Korea, Mexico, Taiwan, and the United Arab Emirates.

The Bloomberg Barclays U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, mortgage backed securities, asset-backed securities and corporate securities, with maturities greater than one year.

The Bloomberg Barclays US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Barclays EM country definition, are excluded.

Bloomberg Barclays Long Term US Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury with 10 years or more to maturity.

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In addition to the ongoing market risk applicable to portfolio securities, bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally, the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

Foreign Security and Emerging Market Risk: Investments in foreign securities involve risks relating to currency fluctuations and to political, social and economic developments abroad, as well as risks resulting from differences between the regulations to which U.S. and foreign issuers and markets are subject. These risks may be greater in emerging markets. The investment markets of emerging countries are generally more volatile than markets of developed countries with more mature economies.

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