Quadrant

A Quarterly Update

WINDHAVEN INVESTMENT MANAGEMENT

Back in Business?

April 2019

Key Points:

1. The first quarter rally has alleviated most of the losses from the previous quarter

2. An inverted yield curve and slowing global growth may challenge the bullish sentiment

3. The Windhaven Strategies remain somewhat conservatively positioned, tilted toward market protection

Mirror, mirror, on the wall...

2019 has started with a bang, with a market rally that is almost a mirror image of the market downturn of the fourth quarter of 2018 (fig 1). While market returns around the world are off to a strong start in 2019, many have not returned to their highs.

Economic growth around the globe remains lukewarm, with every major region's Purchasing Manager Indices (PMIs), an economic indicator based on surveys conducted of private companies, showing declines from year-end levels. While this measure of economic growth shows some slowing, we have seen stabilization and even improvement in other macroeconomic, monetary and behavioral factors that we track closely. Given this backdrop, we are mindful that recent market gains might be driven by global central banks' supportive accommodations, growth oriented policies in China, and a ratcheting-down of trade tensions between United States and China, where both parties may be incentivized to reach a deal amid slowing global growth, than by a return of rapid economic expansion.

Fig 1: Quarterly global equity markets returns

Source: Bloomberg as of 3/31/2019. Returns are represented by MSCI Indexes.

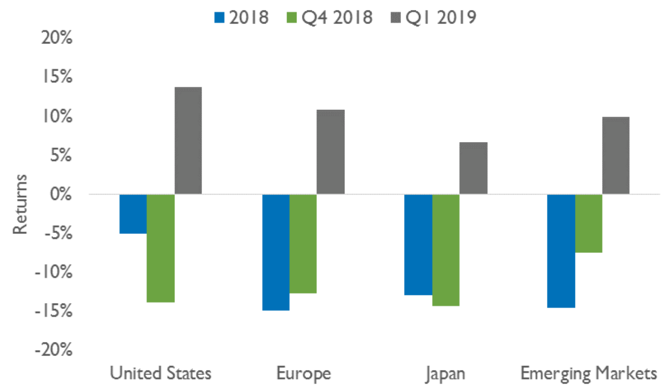
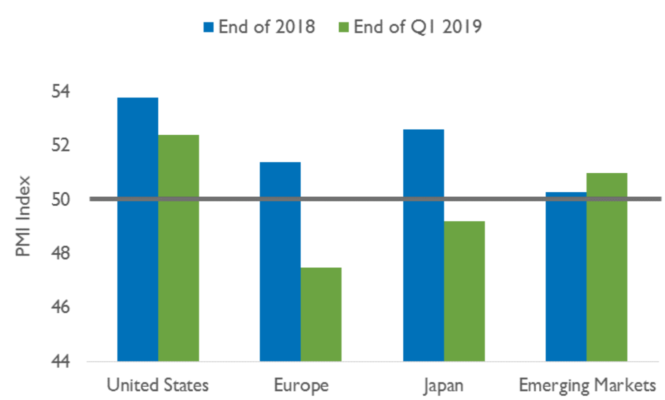


Fig 2: Global macroeconomic growth remains weak; PMIs slow and signal potential contraction in Europe and Japan

Source: Bloomberg as of 3/31/2019.



Our perspective on the global economy and recent yield curve inversion

The global economic growth picture might not be exciting, but the support of global central banks and other policy makers might reduce the probability of a recession; however, this support may continue to affect markets by shortening market cycles and causing asset classes to move in and out of favor more rapidly than they have over the past ten years. In this type of environment, we believe our research process which strives to participate in markets opportunistically and protect when a more defensive posture is appropriate, will help our investors navigate these potentially choppy conditions to meet their investment goals. In 2018, our tactical changes led us to a more defensive posture across all of the Windhaven Strategies. This helped reduce the downside relative to our benchmarks during the fourth quarter of 2018. As our primary investment factors have been improving in 2019, we continue to gradually move towards a more balanced stance.

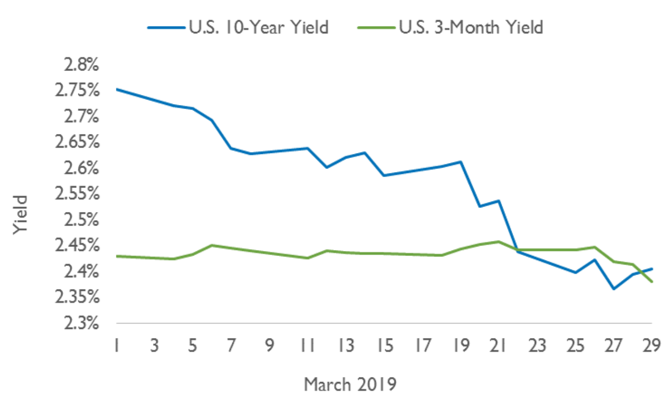
While the year is still young, the first quarter of 2019 has also brought us the first yield curve inversion since 2008. We are mindful that there are different dynamics that can lead to a flat or inverted yield curve:

- ***Bear flattening:*** this scenario occurs when the yield curve flattens because short-term yields rise faster than longer term yields. This generally happens when a central bank increases interest rates dramatically to cool an economy and tame possible inflation. In this scenario, **investors generally foresee a slowdown of the economy ahead which typically does not bode well for equity investments, and makes fixed income assets become more attractive.**
- ***Bull flattening:*** this scenario occurs when the yield curve flattens because long-term yields are falling more rapidly than shorter term yields. This scenario generally occurs as **investors expect the central bank(s) to ease or cut interest rates. This might have a stimulative effect on global economic growth and therefore be bullish for equities.**

Even though the two scenarios above are very different in nature, a yield curve inversion is generally a warning sign for investors as it has historically preceded a recession. One wrinkle, since 2007 a number of unorthodox policies have been implemented by central banks across the global economy, and those policies might alter and distort past market relationships.

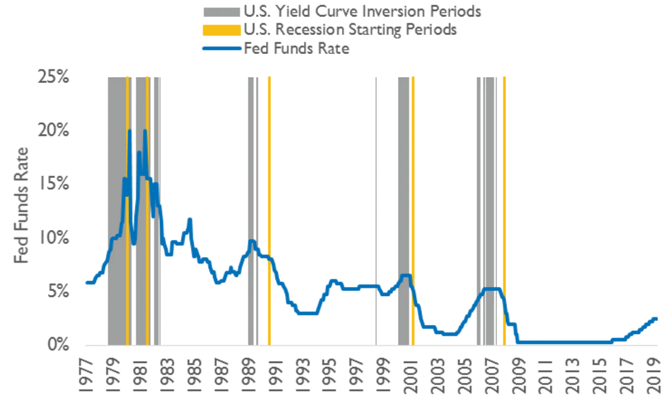
The current inversion appears to be following a bull flattening pattern. After several months in 2018 of moving in a bull flattening fashion (with the 10-year yield falling and the 3 month yield not moving much in either direction) the yield curve inverted when the 10-year Treasury yield fell below that of the 3 month Treasury bill in late March 2019.

Fig 3: Zooming in on yield curve inversion
Source: Bloomberg as of 3/31/2019.



As is typical in markets, there is more to the story. With the United States and much of the global economy still expanding, and with inflation in check in most economies, it is conceivable that the tightening work of the U.S. Federal Reserve (Fed) might not be quite done. As figure 4 shows for the United States, U.S. central bank policy rates tend to peak ahead of recession and well after yield curve inversion. Now that a yield curve inversion has occurred, further tightening by the Fed would be a stronger signal of recession looming than a yield curve inversion alone.

Fig 4: Recessions come well after yield curve inversion and follow the peak in central bank policy rates
Source: Bloomberg as of 3/31/2019. U.S. yield curve inversion depicted in the chart below occurs when the 2-year Treasury yield is greater than the 10-year Treasury yield.



As the declines in the fourth quarter of 2018 and subsequent recovery in the first quarter of 2019 highlight, along with the yield curve inversion, the markets and conditions can change fast. The Windhaven Research Team constantly monitors these conditions and factors that drive them in an effort to participate when we can and protect when warranted.

Positioning

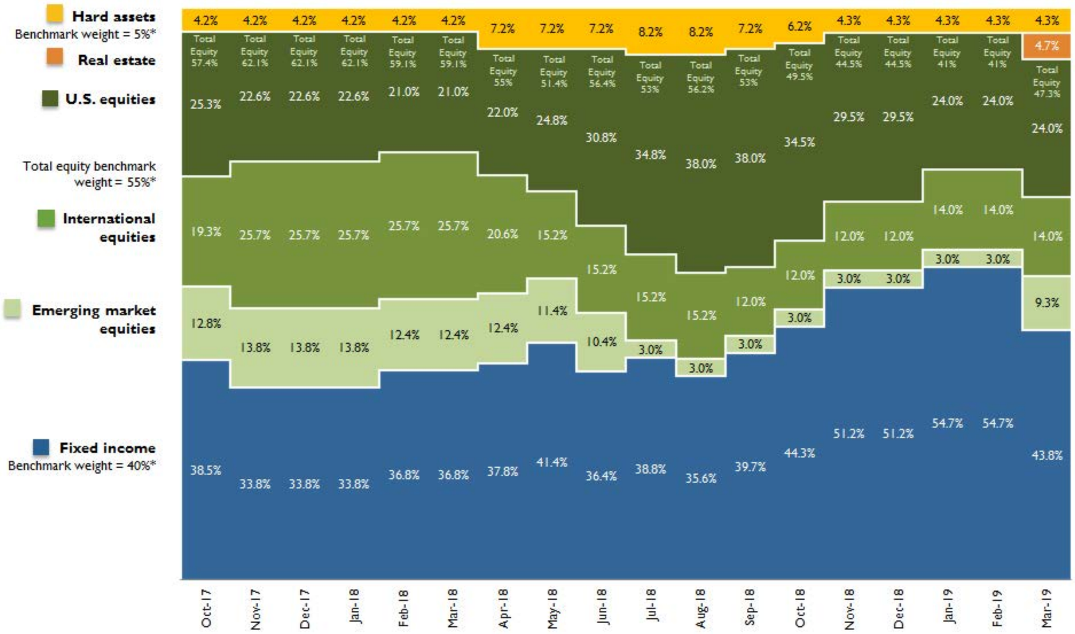
As global growth slowed in 2018, the Windhaven Strategies spent much of the year reducing exposure to equities and increasing fixed income securities, focusing on higher quality and short and intermediate maturities. This approach benefited clients in the fourth quarter, as most global stock markets suffered a sharp correction, causing the U.S. stock market to post its first negative calendar year since 2008.[1]

In the first quarter of 2019, green shoots of stabilization appeared, the Fed softened its tone in the wake of previous quarter's correction, and most global stocks have responded in kind with strong, double-digit returns. After a modest continuation of 2018's de-risking in early January, the February and March adjustments increased our exposure to emerging markets equities and bonds, initiated a new position in U.S. Real Estate Investment Trusts (REITs), and decreased our U.S. fixed income positions. In addition, we increased our U.S. equities position in our Diversified Aggressive strategy. After emerging market stocks finished 2018 as the worst performing asset class in our research universe with a -14.6%[2] return, our research process suggests material improvements in several emerging market regions, while many developed markets, such as the UK, Germany, and Japan, remain challenged. After breaching the 3.0% level in 2018 for the first time since 2013 (peaking at 3.24%), the U.S. 10-year Treasury bond yield has fallen below 2.5%,[3] reflecting expectations that the Fed may be slow to implement its tenth interest rate increase of this hiking cycle. A lower interest rate environment tends to favor risk assets, but can generally be particularly beneficial to REITs.

Overall, each of the three Windhaven Strategies, which strive to participate in market growth while protect when the environment is less favorable, remain moderately tilted toward protection with above-benchmark allocations to bonds across the board. As always, we stand ready to adjust our positioning as the environment changes and our research indicates adding or reducing risk.

Fig 5: Diversified Growth Strategy 18-month changes

Model allocations as of the end of each month



We appreciate your investment in the Windhaven Strategies. Please contact your Investment Professional if your investment objectives or circumstances have changed such that a review of your Windhaven Strategy account(s) might be necessary, or if you have any specific questions about how your account is managed. We value the trust our clients have placed in us, and we are passionate about the Windhaven Strategies and the role they play in helping each of you reach your investment goals.

-The Windhaven Portfolio Management Team

[1] Source Bloomberg | U.S. stock market is represented by S&P 500 Index (1.1.2009-12.31.2018)
[2] Source: Bloomberg | MSCI Emerging Markets Index (1.1.2018-12.31.2018)
[3] Source: Bloomberg as of 3/31/2019

Important Notes and Disclosures:
Portfolio Management for the Windhaven Strategies is provided by Windhaven Investment Management ("Windhaven"), a division of Charles Schwab Investment Advisory, Inc. ("CSIA"). CSIA is a registered investment adviser and an affiliate of Charles Schwab & Co, Inc. ("Schwab"). Both CSIA and Schwab are separate entities and subsidiaries of The Charles Schwab Corporation.

The information provided herein is for general informational purposes only and should not be considered an individualized recommendation or personalized investment advice. The investment strategies mentioned here may not be suitable for everyone. Each investor needs to review an investment strategy for his or her own particular situation before making any investment decision.

All expressions of opinion are subject to change without notice in reaction to shifting market conditions. Data contained herein from third party providers is obtained from what are considered reliable sources. However, its accuracy, completeness or reliability cannot be guaranteed and CSIA expressly disclaims any liability, including incidental or consequential damages, arising from errors or omissions in this publication.

Asset classes and the proportional weightings in the strategies may change at any time without notice subject to the discretion of the Windhaven Portfolio Management Team.

Indexes shown in the charts throughout are unmanaged, do not incur fees or expenses, and cannot be invested in directly.

Past performance is no guarantee of future results.

Diversified Growth Strategy 18 Month Changes: Model allocations shown are as of the end of each month. Allocations do not necessarily reflect our current investment views and should not be used as the basis for investment decisions. Holdings of individual client portfolios may differ, sometimes significantly, from those shown in the mode allocation chart. Cash positions whether in US dollars or other currency are included in the relevant fixed income section. Hard Assets are physical assets and may include exposure to gold, commodities and energy.

The following Global benchmarks for each Windhaven strategy are:
Global Conservative is composed of 20% MSCI All-Country World Index (ACWI), 75% Bloomberg Barclays US Aggregate Bond Index, and 5% S&P GSCI Total Return Index (GSCI), rebalanced monthly.
Global Growth is composed of 55% MSCI ACWI, 40% Bloomberg Barclays US Aggregate Bond Index, and 5% S&P GSCI, rebalanced monthly.
Global Aggressive is composed of 70% MSCI ACWI, 20% FTSE World Government Bond Index (WGBI), and 10% S&P GSCI, rebalanced monthly.

International investments may involve additional risks, which could include differences in financial accounting standards, currency fluctuations, political instability, foreign taxes and regulations, and the potential for illiquid markets. Investing in emerging markets may accentuate these risks.

Fixed income securities are subject to increased loss of principal during periods of rising interest rates. Fixed income investments are subject to various other risks including changes in credit quality, market valuations, liquidity, prepayments, early redemption, corporate events, tax ramifications and other factors.

Hard assets can be significantly affected by commodity prices, world events, import controls, worldwide competition, government regulations, and economic conditions.

Windhaven's risk management process includes an effort to monitor and manage risk, but should not be confused with and does not imply low risk or the ability to control risk.

Please refer to the Windhaven Strategies Disclosure Brochure for additional information.

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