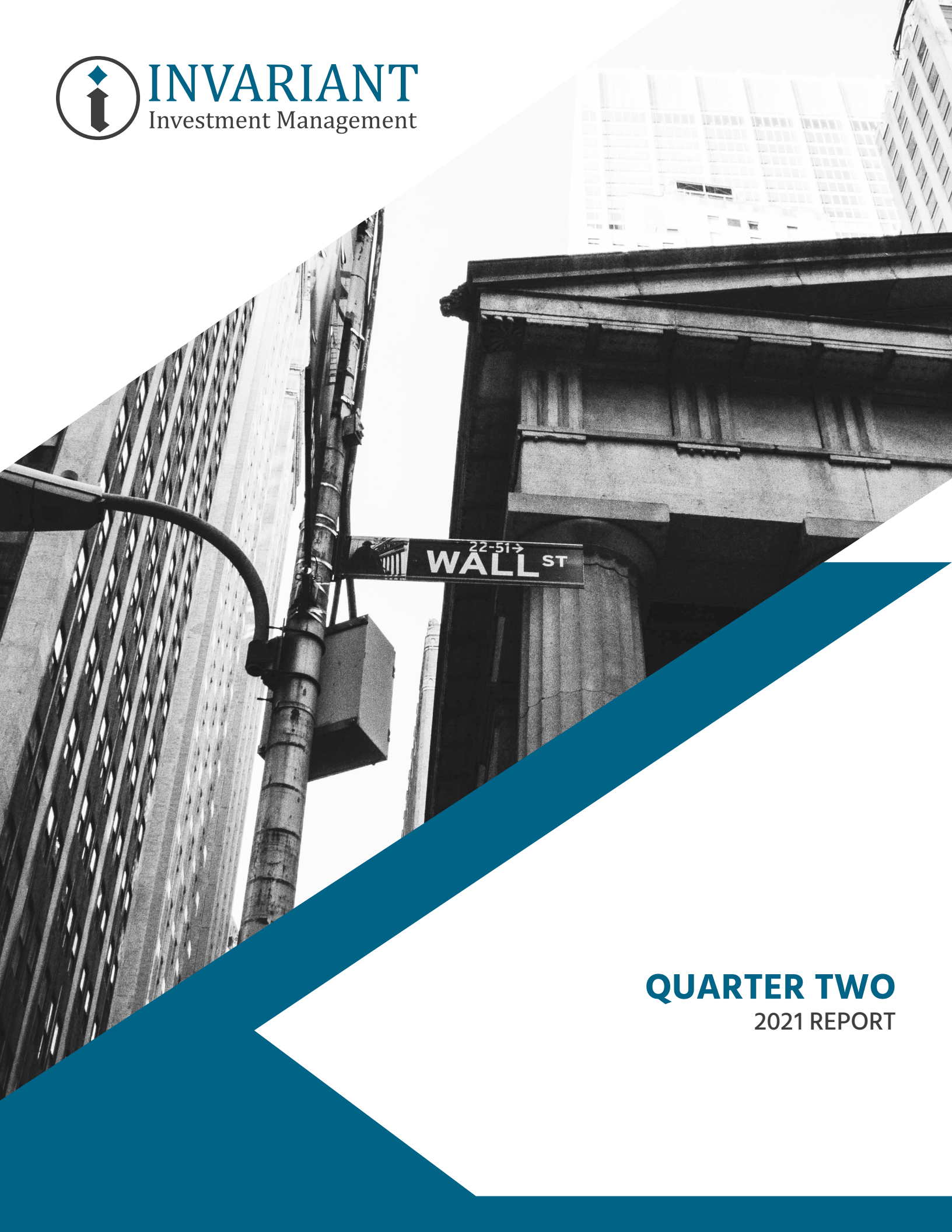




INVARIANT
Investment Management



QUARTER TWO
2021 REPORT



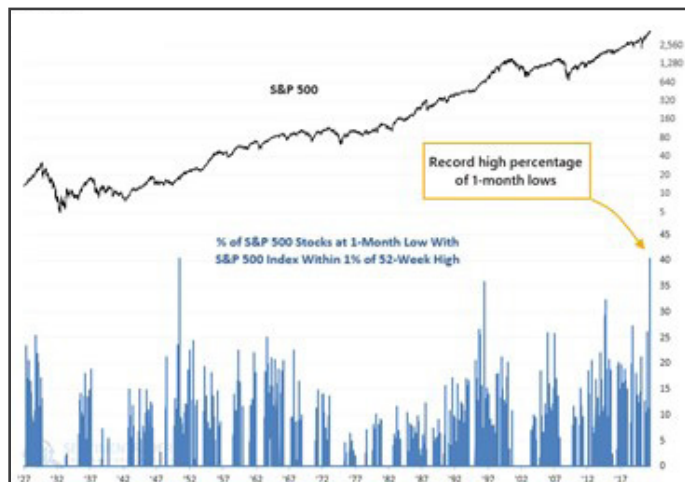
EXECUTIVE SUMMARY

- ◆ Markets and portfolios advanced in the second quarter of 2021.
- ◆ Economic data have improved, as we continue to move through the COVID crisis.
- ◆ After a harrowing fall to start the year, treasuries began to stabilize, buoying fixed income portfolios.
- ◆ We invite clients, especially those who we have not seen in a while, to come in for a meeting at our new office in Camp Hill, or to schedule a review over the phone or Zoom. Please reach out to Amber to schedule a meeting: 717-317-9006 or amber@invariantinvestments.com.

INTRODUCTION

Stocks and the economy delivered impressive gains in the second quarter as the world continued to emerge from the COVID-19 pandemic. Though we saw bouts of volatility, including significant corrections in cyclical stocks in June, the averages closed out the quarter at all-time highs. This almost unimaginable outcome

A BIG DIVERGENCE



Source: CSRP, Bloomberg, SentimenTrader

Though the overall sell off in stocks was muted, there was a significant internal correction in various sectors.

a year ago has been powered by fiscal and monetary policy, and avoiding worst case pandemic scenarios, thanks to the unprecedented development and roll out of vaccines. Portfolio activity picked up late in the quarter, as we sought to take advantage of some of the internal corrections within markets.



COVID

While developments abroad and the Delta variant coming ashore represent some risk to the COVID path, it appears that the vaccination roll out has been generally successful, and the worst is behind us. While we are hesitant to put such a declaration in print, we are merely following the lead of the expert research providers we have relied on throughout the pandemic.

Cases, hospitalizations, and deaths have been trending lower for some time now, and vaccinations are ongoing. While there may be some flare ups and disruptions, businesses and economies are rapidly reopening their stores and borders. We will be on the look out for a change in these conditions for some time, but our prayer is that it is finally time to move forward.

FEDERAL RESERVE AND TREASURY BONDS

COVID ushered in or accelerated new frameworks for monetary and fiscal policy: FAIT and MMT.

Flexible Average Inflation Targeting (FAIT) represents a change to how the Federal Reserve thinks about meeting its 2% inflation target. In order to give them a better chance of averaging 2% over the medium term, they have explicitly stated that they are willing to accept inflation > 2% for some time before tightening policy, given how long it has undershot. In practice, this means the Fed is not as concerned about preventing the economy from “overheating” as market participants thought they might be.

The Fed has adopted this policy primarily because they are no longer as confident in the usefulness of a low

unemployment rate for predicting inflation. If indeed, low unemployment is no longer as powerful a predictor of future inflation as economists thought, then the relative risk of tightening policy too early and choking off further economic gains is higher than the risk of inflation spiraling out of control. This likely lengthens the runway of the economic recovery but poses new risks to inflation dynamics that market participants are not accustomed to.

While Modern Monetary Theory (MMT) has not been embraced per se in the United States, many of its tenants are finding broader acceptance by policymakers and economists. MMT re-thinks the role and capacity for fiscal policy to help an economy reach full employment. In practice, it supports the idea that



the federal government can take on much more debt with less risk than previously thought. The CBO just forecast a \$3 trillion budget deficit for 2021, after a year where we saw enormous government transfer payments to individuals and businesses.

Whether one accepts or rejects its philosophy and associated policy prescriptions, it is a significant force in today's economy. Invariant thinks the pace of fiscal spending is poised to slow, but it is important to keep in mind that policymakers are now much quicker and more willing to use the budget should markets or the economy show signs of weakness.

For those interested in learning more about MMT, see the following interview: https://www.youtube.com/watch?v=28atgck_1IA



PORTFOLIOS

Invariant portfolios benefited from the general rise in asset prices, as well as bond yields moving sharply lower after their historic rise in Q1. After a ferocious fourth quarter in 2020, our relative performance cooled off a bit. Utilities and consumer staples have been laggards, but we think they are poised to resume the mantle as volatility in the bond market continues to fall and people come around to the fundamentals.

Last quarter, we said, "This is the point in the market cycle where investor sentiment starts to drive behavior, not fundamentals. We will remain true to our process and stay disciplined in the face of investor panic and euphoria. This is the bedrock of the Invariant approach."

Sentiment indeed was in the driver's seat in Q2 and created a number of opportunities we sought to take advantage of.

After a blistering start to the year, shares of international and emerging market stocks and bonds sold off sharply in the second quarter. For example, a basket of Chinese internet stocks, represented by the ETF KWEB, sold off over 33% from its high price in February. We leaned into this and picked up positions in emerging market bonds and stocks. In more aggressive accounts, we have also added positions in

holdings that should benefit if the US Dollar resumes its bear market and risk appetite remains strong.

Portfolio risk across strategies picked up a bit as we picked up these holdings on sale but remains in the middle of its investment policy parameters. We will continue to follow our process and adapt as circumstances and prospects change.

KWEB KRANESHARES CSI CHINA INTERNET ETF AMEX



Source: Stockcharts.com





SUMMARY

According to our friends at Bespoke research, 2021 is one of the small number of years where the S&P 500 never experienced anything more than a 5% pullback from a closing high in the first half of the year. Through the S&P 500's history, there have only been 14 other such years. In 13/14, stocks continued to rally in the back half of the year, with a median gain of 10.2%. The only down second half was 1986 where the S&P fell 3.5%.

Does this mean there is zero risk to owning risk assets in the back half of 2021? Of course not. But it does put into perspective that even though returns have been very strong since the COVID bottom in March 2020, there may be significant room for this bull market to run over the short to intermediate term. If volatility picks up, we will seek to take advantage of it.

Thank you for your trust and confidence.

David M. Borowsky

Chief Investment Officer

Gary Smith, CFA®

Chief Operating Officer and Director of Research



Invariant Strategic SUMMARY

As of 7/1/2021

Invariant Strategic provides low-cost, efficient, market exposure suitable to a variety of investment objectives, ranging from capital preservation to long term growth. Five portfolios are offered that are designed to help you achieve your financial goals.

Q2 Contributors

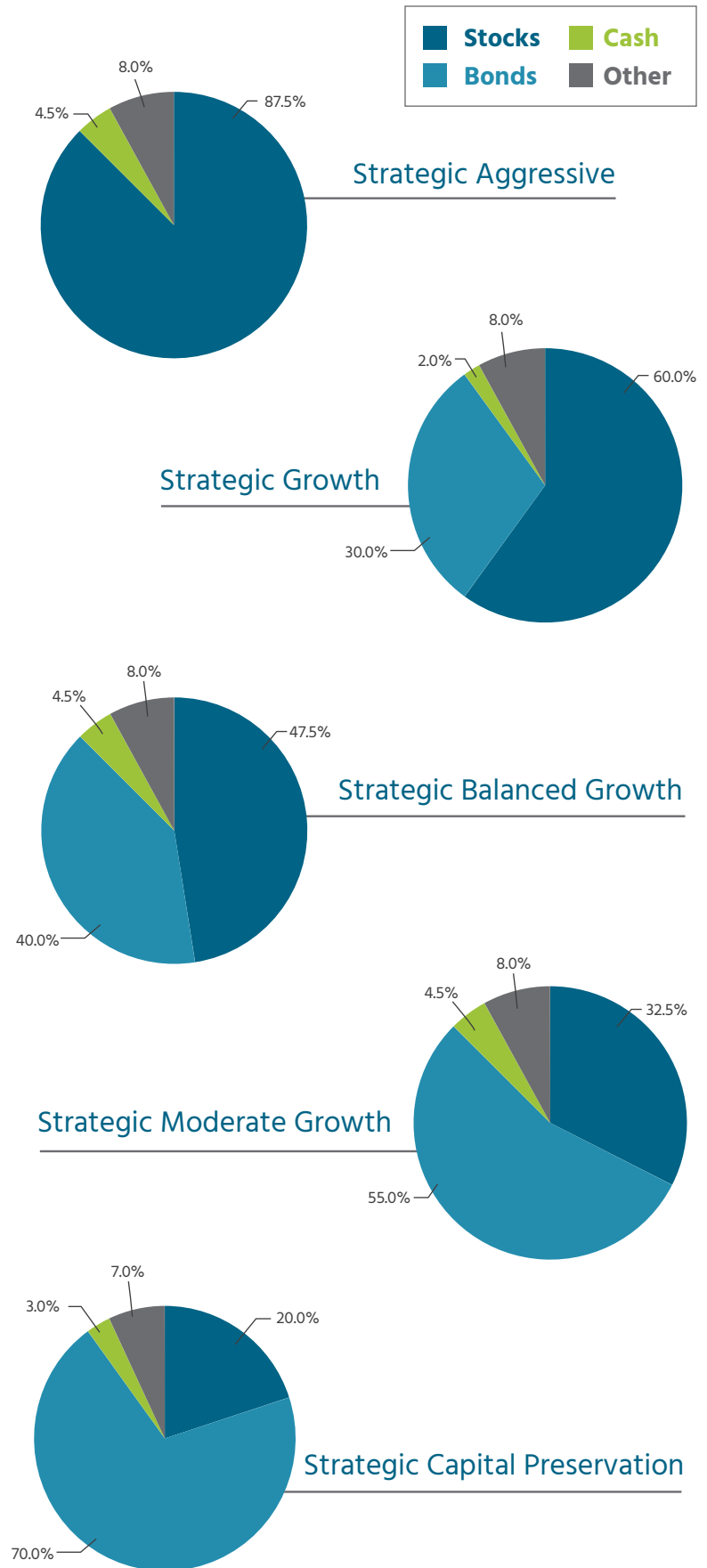
- ◆ Duration Exposure (10-30 year treasuries)
- ◆ Commodities

Q2 Detractors

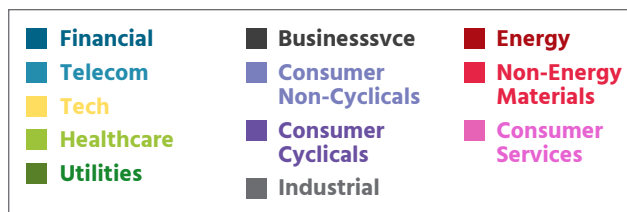
- ◆ Defensive Equity Tilt

Portfolio Changes

- ◆ Entered EM Equity
- ◆ Entered Em Bonds



Single Stock SUMMARY

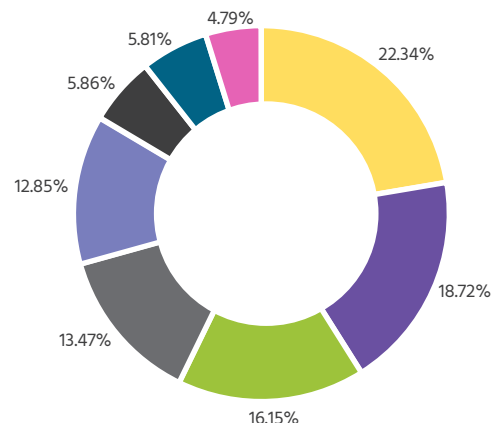


PROFITABILITY ALPHA

A large market capitalization, U.S. equity strategy that aims to own companies that are more profitable than their peers. The initial screening process filters for a combination of profitability, growth, and low short interest. The names generated by the screen are then given a blended value and quality score using various ratios. The strategy aims to own the top 20 names, rebalanced semi-annually.

Holdings

◆ AZO	◆ HD	◆ MCO	◆ PM	◆ TGT
◆ CL	◆ IDXX	◆ MTD	◆ POOL	◆ TROW
◆ DPZ	◆ LMT	◆ NTAP	◆ ROK	◆ TXN
◆ FTNT	◆ LOW	◆ ORLY	◆ SPGI	◆ VRTX

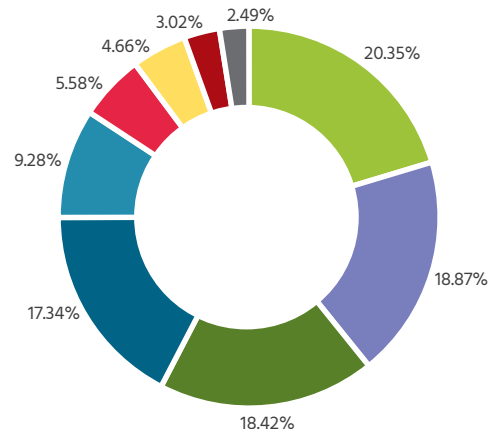


QUALITY DIVIDEND

A large market capitalization, U.S. equity, dividend-focused strategy. The initial screening process filters for a combination of yield, quality, low beta, and low short interest. The names generated by the screen are then given a blended value score using different valuations ratios. The strategy aims to own the top 30 names, rebalanced annually.

Holdings

◆ ABBV	◆ DUK	◆ JNJ	◆ PFE	◆ VZ
◆ AMGN	◆ EIX	◆ JNPR	◆ PM	◆ WU
◆ BMY	◆ FLO	◆ K	◆ PPL	◆ MO
◆ CME	◆ FR	◆ MMM	◆ SJM	
◆ CSCO	◆ GILD	◆ MSM	◆ SO	
◆ CUBE	◆ GIS	◆ NEM	◆ T	
◆ DLR	◆ HTA	◆ O	◆ UGI	



Riskalyze Summaries

Please see the end of the document for important disclosures on Riskalyze Risk Scores.

Strategic Capital Preservation: Currently contains 25% equities, using its proprietary risk models, Riskalyze calculates this portfolio's risk score as 29 (out of 100), an expected annual return is 4.85%, and yield of 1.54% annually, and estimates a 95% probability that the portfolio will return -3.86% to +8.7% in the coming six months.

Strategic Moderate Growth: Currently contains 37.5% equities, using its proprietary risk models, Riskalyze calculates this portfolio's risk score as 34 (out of 100), an expected annual return is 5.2%, and yield of 1.52% annually, and estimates a 95% probability that the portfolio will return -5.3% to +10.5% in the coming six months.

Strategic Balanced Growth: Currently contains 52.5% equities, using its proprietary risk models, Riskalyze calculates this portfolio's risk score of 44 (out of 100), an expected annual return is 5.96%, and yield of 1.82% annually, and estimates a 95% probability that the portfolio will return -7.92% to +13.89% in the coming six months.

Strategic Growth: Currently contains 65% equities, using its proprietary risk models, Riskalyze calculates this portfolio's risk score of 53 (out of 100), an expected annual return is 6.5%, and yield of 2.25% annually, and estimates a 95% probability that the portfolio will return -10.29% to +16.79% in the coming six months.

Strategic Aggressive: Currently contains 92.5% equities, using its proprietary risk models, Riskalyze calculates this portfolio's risk score of 67 (out of 100), an expected annual return is 6.19%, and yield of 2.08% annually, and estimates a 95% probability that the portfolio will return -14.2% to +20.39% in the coming six months.

Profitability Alpha: Currently contains 100% equities, using its proprietary risk models, Riskalyze calculates this portfolio's risk score of 85 (out of 100), an expected annual return is 7.35%, and yield of 1.3% annually, and estimates a 95% probability that the portfolio will return -19.92% to +27.27% in the coming six months.

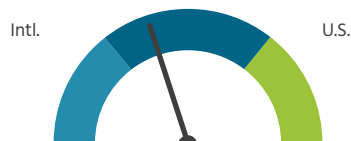
Quality Dividend: Currently contains 100% equities, using its proprietary risk models, Riskalyze calculates this portfolio's risk score of 63 (out of 100), an expected annual return is 8.01%, and yield of 3.79% annually, and estimates a 95% probability that the portfolio will return -13.11% to +21.12% in the coming six months.

Riskalyze scores were calculated using target portfolio allocations from 7/1/2021.



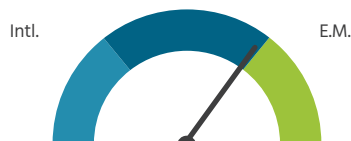
Model Exposure Gauge

As of 6/31/2021



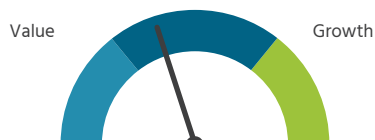
International vs U.S. Equity

Added EM Exposure, taking international exposure up relative to U.S.



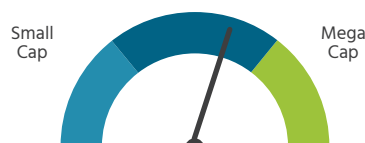
International Developed vs Emerging Market Equity

Added EM Exposure, taking international exposure up relative to developed international.



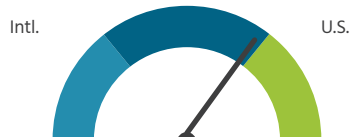
U.S. Equity Value Factor

Exposure is relatively balanced.



U.S. Equity Size Factor

Slight tilt toward large cap with addition of cap-weighted EM exposure.



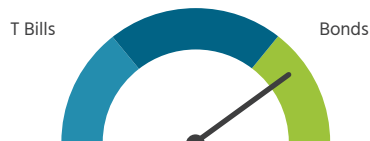
International vs U.S. Fixed Income

Added EM Bonds.



International Developed vs Emerging Market Fixed Income

Own EM bonds, no developed international fixed income.



U.S. Fixed Income Duration

Unchanged in Q2.



U.S. Fixed Income Credit Exposure

Unchanged in Q2.

Please inquire for more information about Model Exposure Gauge.



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Invariant Investment Management does not claim to comply with Global Investment Performance Standards (GIPS®). All investment strategies and investments involve risk of loss and past performance is no guarantee of future results. Investors should make their own investment decisions based on their specific investment objectives and financial circumstances and are encouraged to seek professional advice before making any related decision. Diversification does not ensure a profit or protect against a loss. Index performance does not reflect the deduction of any fees and expenses, and if deducted, performance would be reduced. Indexes are unmanaged and investors are not able to invest directly into any index.

No allocation of assets can ensure a profit or protect against a loss. The asset allocations presented in this material are as of the date indicated and may fluctuate as changes occur to portfolio holdings. Information contained within is believed to be from reliable sources however, Invariant Investment Management cannot guarantee completeness or accuracy.

This material is not to be construed as an offer, or the solicitation of an offer, to buy or sell securities. This material does not take the place of any brokerage statements, any fund company statements, any investment policy statements, or any 1099 tax forms. You are urged to compare this material with your individual portfolio allocation and to contact us with any questions.

The past performance of portfolios does not guarantee future results and principal value will fluctuate so that your investments, when redeemed, may be worth more or less than their original cost.

If there have been any changes to your financial situation, please contact us at your earliest convenience so we can discuss any changes that may be warranted to your investment or financial plan.

Riskalyze uses actual historical data to calculate the statistical probabilities shown. For securities calculated using Average Annual Return, the Average Return will be calculated using actual price history from June 2004-present or inception. We calculate the annualized return number as $(\text{final price} / \text{initial price})^{(1 / \text{number of years})} - 1$. Riskalyze does not provide investment analysis on investments with less than 6 months of historical performance. In instances where an investment's inception is more recent than January 1, 2008 and greater than 6 months, Riskalyze will use correlation statistics from the investment's actual trading history to extrapolate missing volatility data. In most cases the extrapolation calculation increases the risk presented in the investment analysis as a means of protecting the investor. Investments with an inception more recent than January 1, 2008 are highlighted with an information icon. The Six Month 95% Probability Range is calculated from the standard deviation of the portfolio (via covariance matrix), and represents a hypothetical statistical probability, but there is no guarantee any investments would perform within the range. There is a 5% probability of greater losses. Riskalyze does not use any Monte Carlo or any other type of simulations. The underlying data is updated as of the previous day's market close price, and the results may vary with each use and over time. The investments considered were determined by the financial representative. **IMPORTANT:** The projections or other information generated by Riskalyze regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. These figures may exclude commissions, sales charges or fees which, if included, would have had a negative effect on the annual returns. Asset class representations for this portfolio exclude individual security allocations that result in net leveraged or shorted positions for a particular asset class. The distribution rate is derived by summing the trailing 12-months' distributions (dividends, distributions from borrowing, return of capital, etc.) and dividing the sum by the last month's ending NAV. It does not include capital gains distributed over the same period. Riskalyze is independent and unaffiliated with Invariant Investment Management. For more information about Riskalyze and its risk scoring process, please visit riskalyze.com.

Performance returns contained in this advisor letter are net of Invariant's maximum annual subadvisory fee of 0.25%, and [do not] reflect the reinvestment of dividends and other earnings. Investors into a portfolio will additionally incur advisory fees charged by their direct advisor, as well as transaction costs and other charges imposed by other independent and unaffiliated third-parties.

Performance returns contained in this advisor letter do not include any positions not managed by Invariant that may otherwise have been held in a client's account.

Benchmark returns shown are from SPY (S&P500), AGG (Barclays Aggregate Bond Index), AOR (iShares Core Growth), and AOK (iShares Core Conservative). A benchmark is a standard for measuring and evaluating the performance of an investment strategy.

