



IS YOUR RETIREMENT PLAN SUSTAINABLE?

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T. Rowe Price



RISING NEED FOR RETIREMENT SOLUTIONS

Investing for retirement remains highly complex

Millennials and Baby Boomers alike are having a hard time:

Up to 2/3 are finding information about investing hard to understand¹



Source: <https://www.raconteur.net/infographics/how-different-ages-invest>.

¹Blackrock 2019.

Challenges individuals face in retirement

Problems seeking to be addressed

1

Individuals need to recognize and manage **changing risks that come in many different forms** over one's lifecycle

2

Individuals have different **preferences** and may display **behavioral biases** that would affect the retirement outcomes

3

Individuals face **a wide array of retirement income solutions** in the market that are hard to choose from

Beyond an investment product

Every retirement journey is unique

- The path to retirement is different for everyone.
- Because not all goals are alike, asset managers need to offer a range of solutions to help individuals achieve their retirement goals.

Retirement solutions designed for the world you live in

- Asset managers need to embed a sophisticated, yet realistic, understanding of investor needs and behaviors.
- Rigorous research and powerful insights are required.

Your retirement isn't passive

- Achieving your unique retirement goals requires a dynamic process and dedicated experts who can proactively plan for the long term.
- The value of active management throughout the process could improve the outcomes.

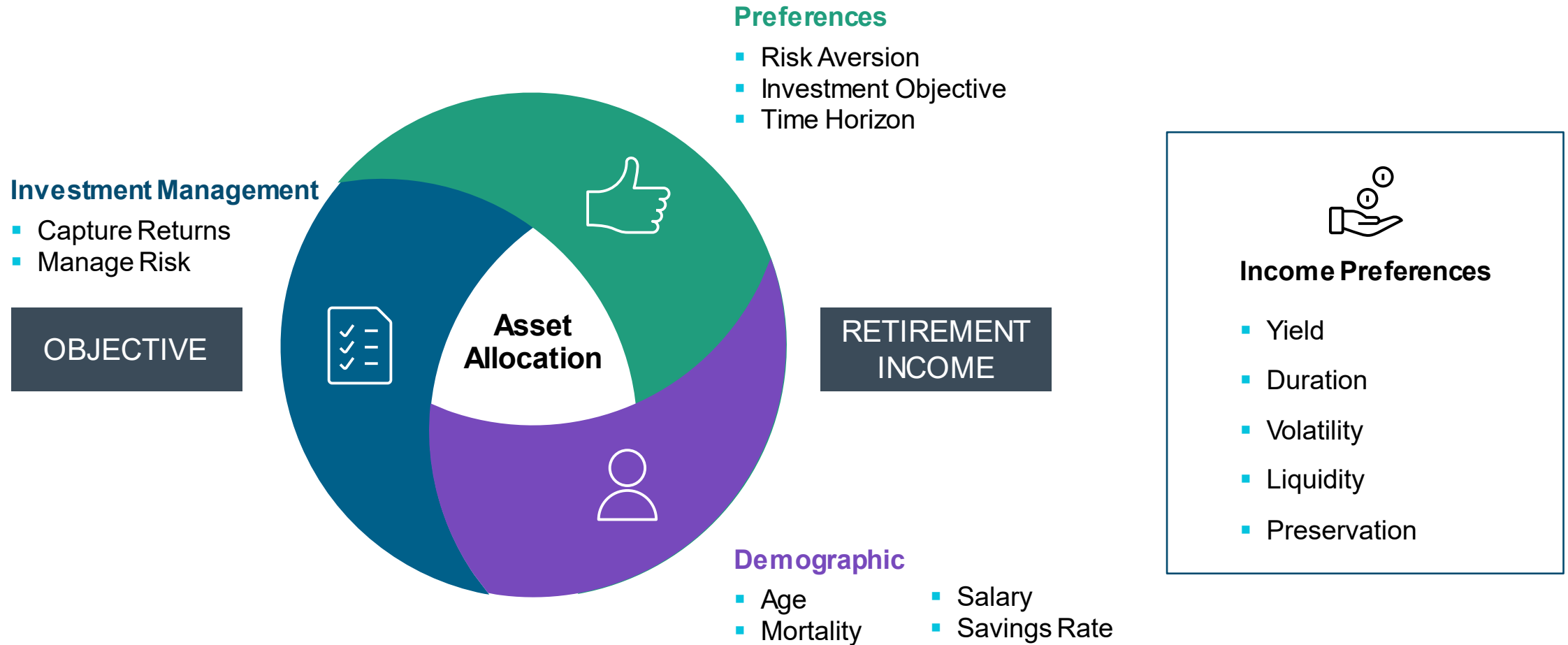
We believe the design of retirement solutions should be aimed to helping individuals replace working income in retirement.

Aligning the solutions to the defined outcomes

Lifecycle investment

	Accumulation				Pre-Retirement	Decumulation		
	20's	30's	40's	50's	60's	70's	80's	90's
Desired Outcome	Efficiently accumulate assets				Align investment strategy with income goal	Generate consistent income without exhausting savings		
Investment Behavior	Growth-oriented diversified asset allocation				Transition to more conservative investments	Conservative profile with some upside potential		
Benchmark	Measure performance by wealth maximization				Measure performance by retirement income potential			

Diagnose needs and evaluate preferences



Investor preferences have a DNA

INCOME YIELD

How much will my periodic income be?



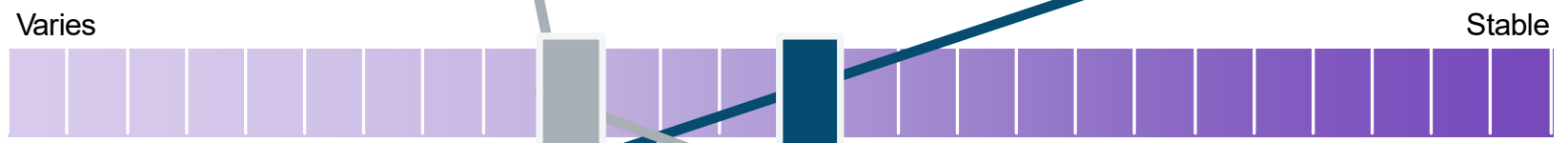
INCOME DURATION

How long will my income last?



INCOME VOLATILITY

How much will my income vary?



ASSET LIQUIDITY

Will I have access to my assets?



ASSET PRESERVATION

Will there be money left when I die?



Hypothetical preferences for person A



Hypothetical preferences for person B

For illustrative purposes only.
Source: T. Rowe Price.

Which can be matched to potential investment solutions

	Equities	Fixed Income	Bond Ladder	Annuities
Income Yield	✓	✓	✓	✓
Income Duration			✓	✓
Income Volatility		✓	✓	✓
Asset Liquidity	✓	✓	✓	
Asset Preservation	✓	✓		



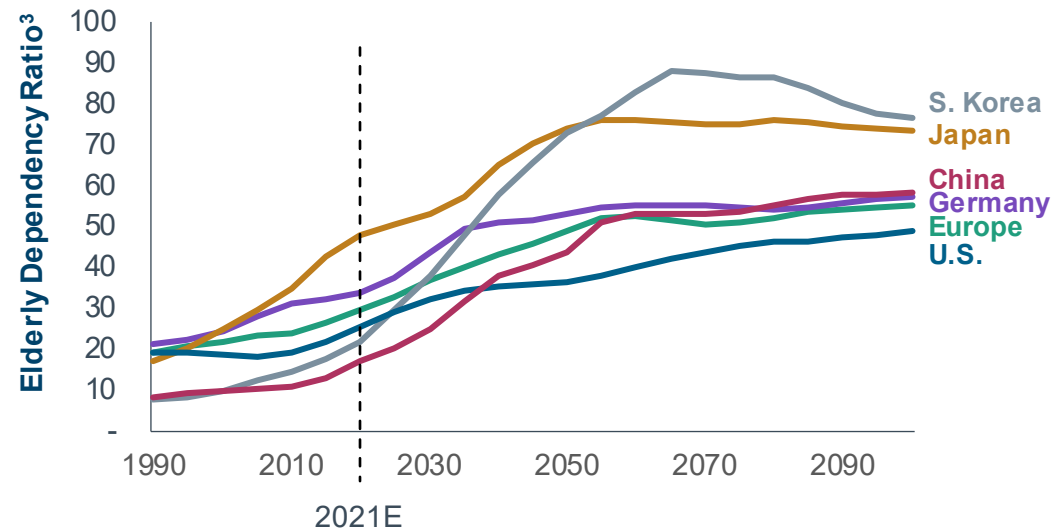


SUSTAINABLE INCOME SOLUTIONS

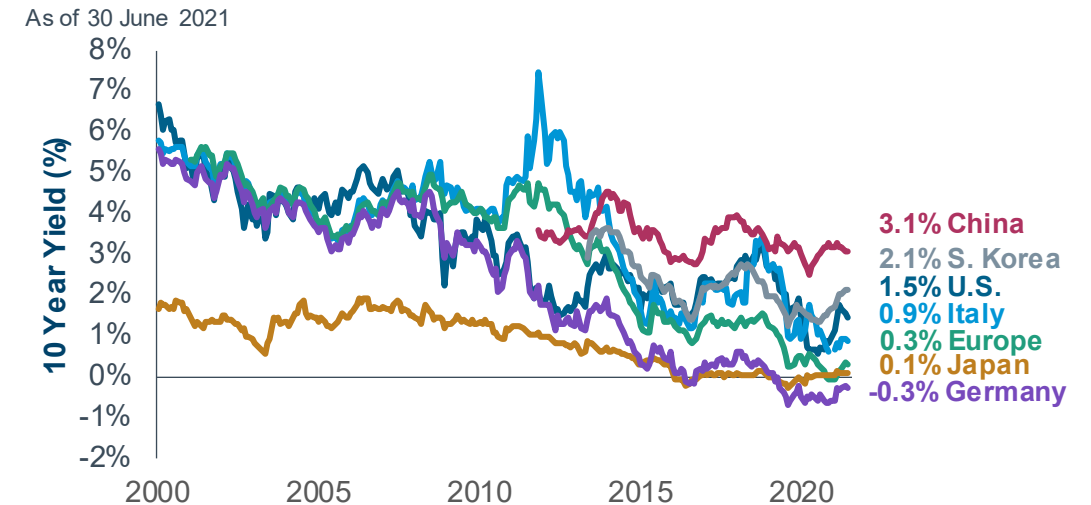
Income investing

A growing need for income

Aging population¹



Falling government yields²



Changing demographics and low yields have the potential to make it more difficult for investors to meet their income needs.

Past performance is not a reliable indicator of future performance.

¹ Source: United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2019 Revision, New York.

² Source: Financial data and analytics provider FactSet. Copyright 2021 FactSet. All Rights Reserved.

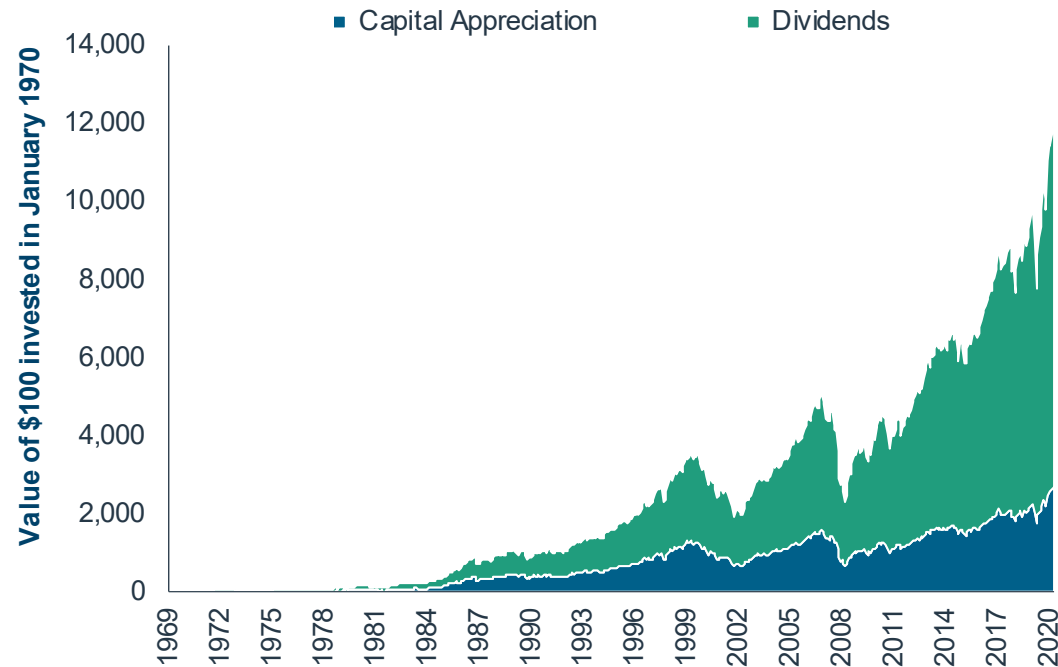
³ The Elderly Dependency Ratio refers to the number of persons aged 65-years or over per 100 persons aged 15 to 64 years: Elderly Dependency Ratio = 100 x Population (65+) / Population (15-64).

Value of dividends accounted for major portion of stock investment return

As of 31 March 2021

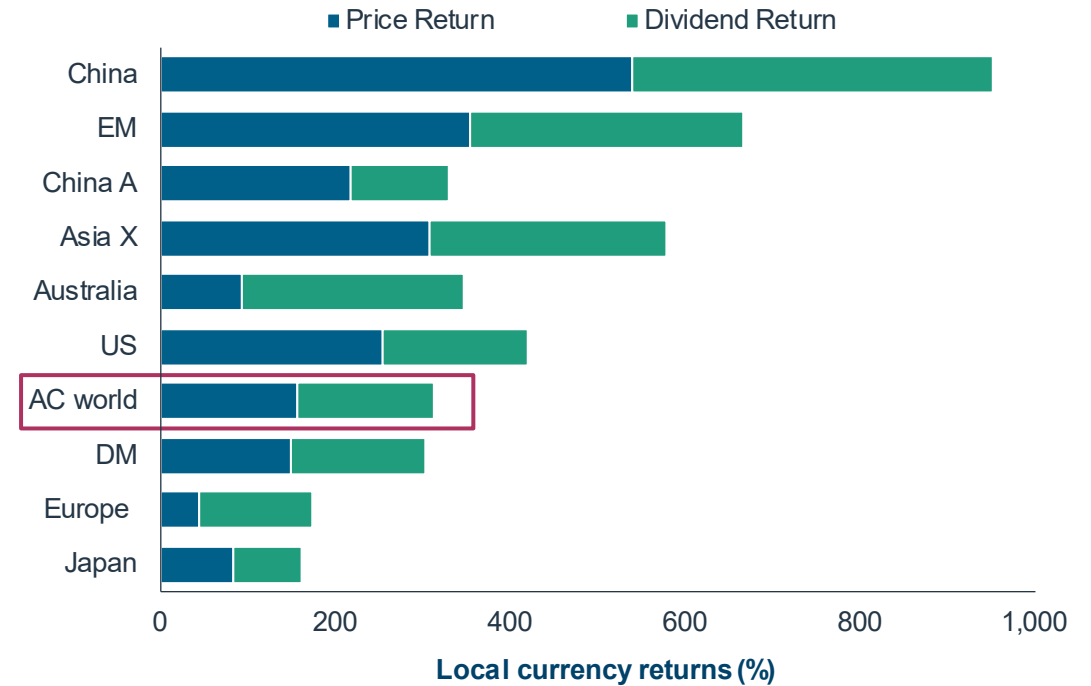
Dividends have accounted for over 60%* of global equity returns since 1970

Total return composition of the MSCI World Index



Major regions: total return breakdown 2001 – 31 March 2021

Local Currency



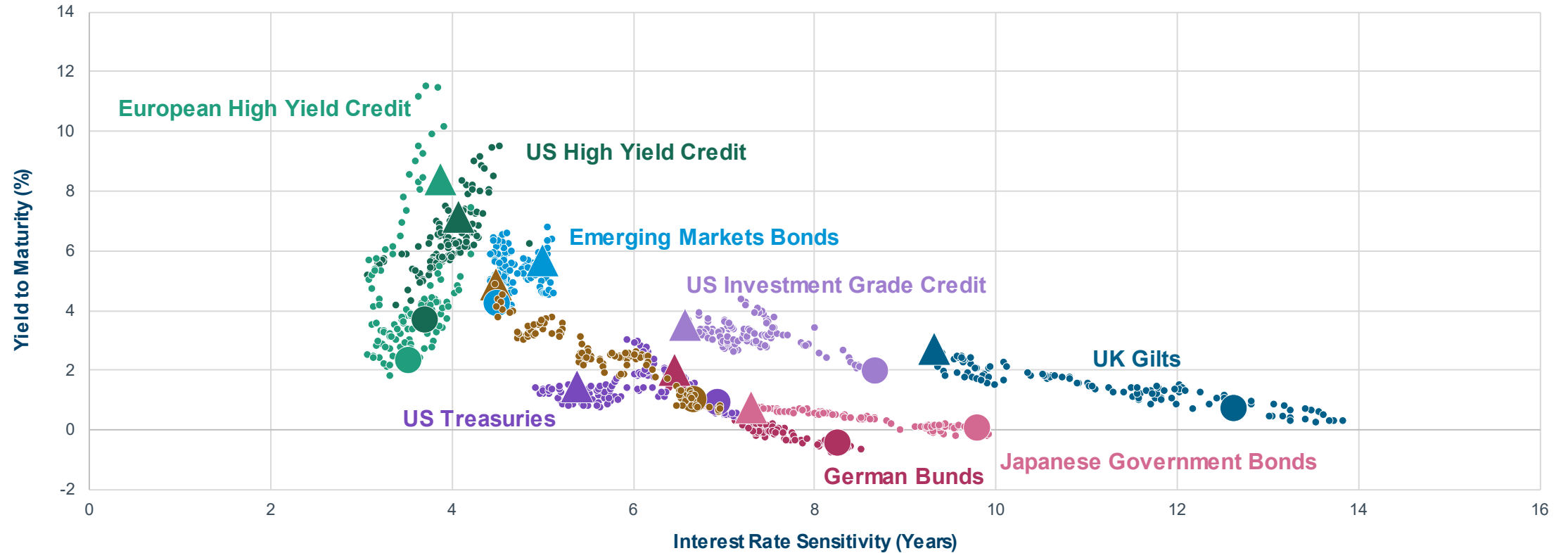
Past performance is not a reliable indicator of future performance.

Source: MSCI. T. Rowe Price calculations using data from FactSet Research Systems Inc. All rights reserved. Analysis by T. Rowe Price.

*Average percentage of return accountable to dividends since 1970.

Income generation is becoming more challenging

For the Period of 29 July 2011 Through 30 June 2021



Note: Largest circle of each data series indicates most recent data point. The triangles represent the earliest data points.

Past performance is not a reliable indicator of future performance.

Source for Bloomberg Barclays index data: Bloomberg Index Services Limited.

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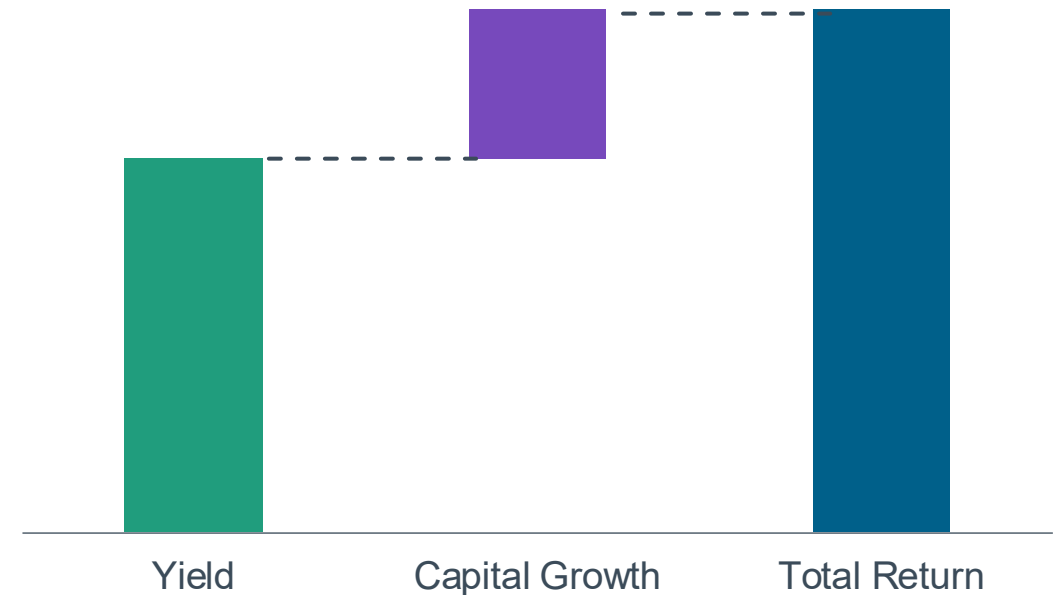
Analysis by T. Rowe Price.

Please see page 29 for each asset class' representative benchmark.

Balancing act between income and capital preservation

We believe:

- A high payout that erodes capital over the long-term is not income, but rather capital return.
- Drawdowns must be managed to achieve the objectives.



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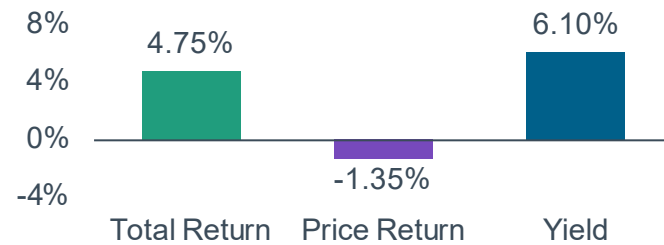
The above chart is not an indication of the Total return allocation between Capital Growth and Yield.

The industry is struggling with capital appreciation, not income

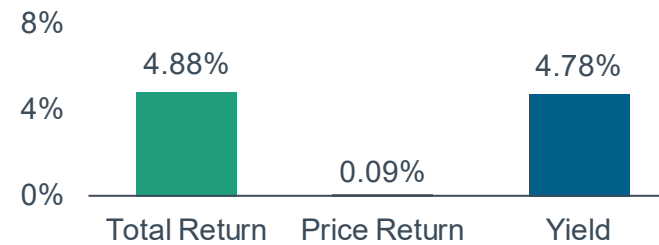
Period of 30 July 2013 Through 30 June 2021 | Figures are Calculated in U.S. Dollars

Annualized total return

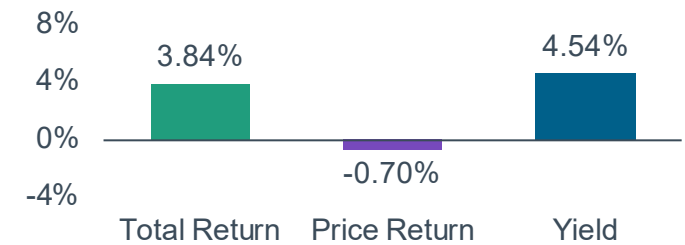
Fund A



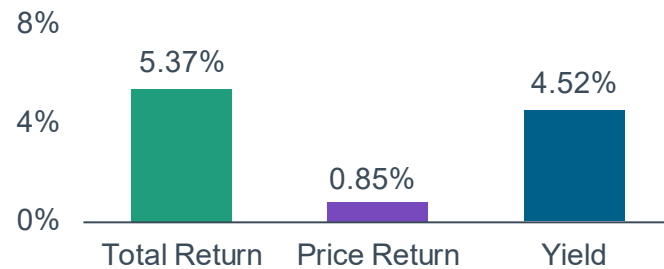
Fund B



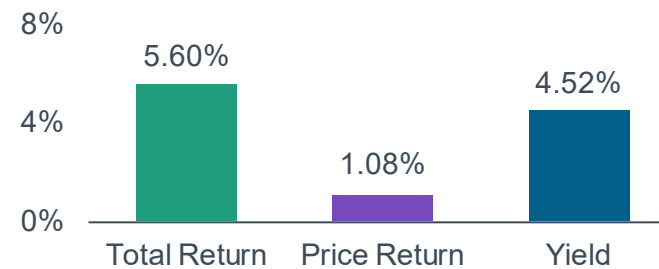
Fund C



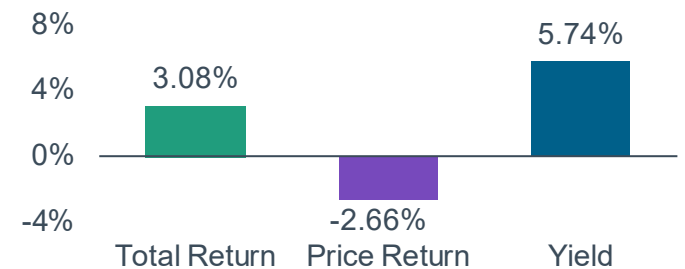
Fund D



Fund E



Fund F



Past performance is not a reliable indicator of future performance.

The peer comparison is a group of strategies within a format that we believe have similar mandates to the T. Rowe Price Multi-Asset Global Income Strategy. All analysis begins on 30 July 2013, the longest track record available for the selected competitors.

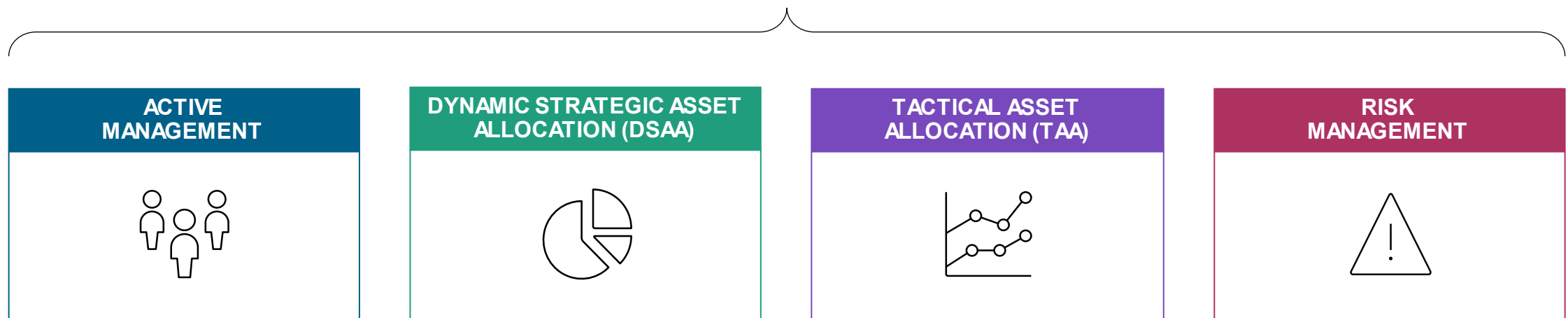
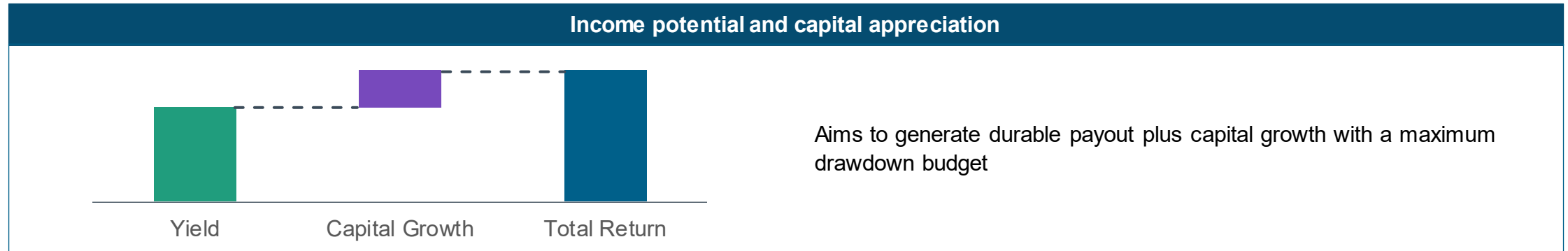
We decomposed the total returns of each competitor's share class into yield and price return over the common period for all competitors. Total return is the annualized total return from Bloomberg. Price Return is the annualized NAV return from Bloomberg. Yield is the difference between total return and price return.

The funds shown may have some key differences and as such, may not be a true like-for-like comparison. Please be aware that the risk profile/ investment objective/ asset class/ asset size can differ between the funds and that this may have an associated performance impact. All funds are subject to market risk, including the possible loss of principal.

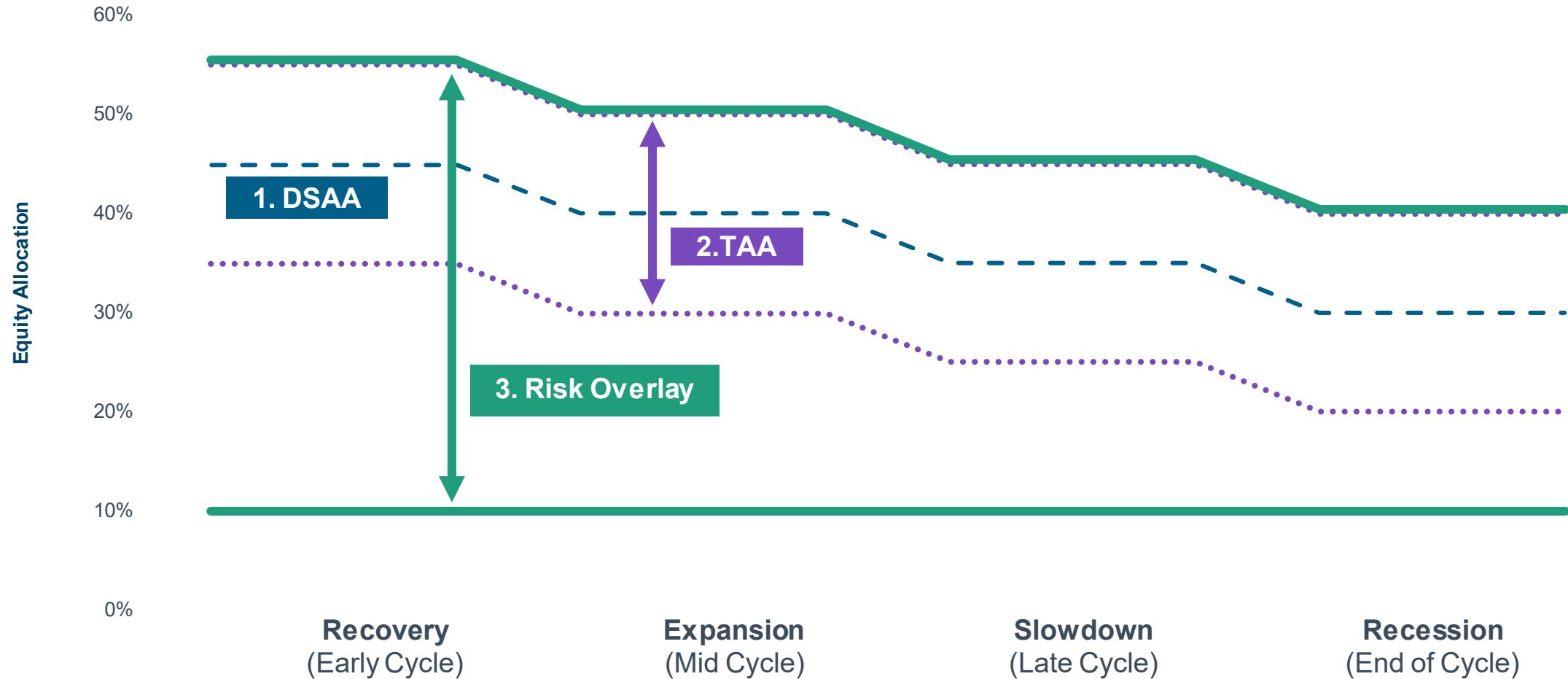
Source: Bloomberg Finance

The T. Rowe Price approach to multi-asset income

Illustration from the T. Rowe Price multi-asset global income solution



Illustrative equity range across economic cycles



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DSAA refers to Dynamic Strategic Asset Allocation. TAA refers to Tactical Asset Allocation.
The chart shows sample equity allocation at the beginning of each stage of the market cycle.



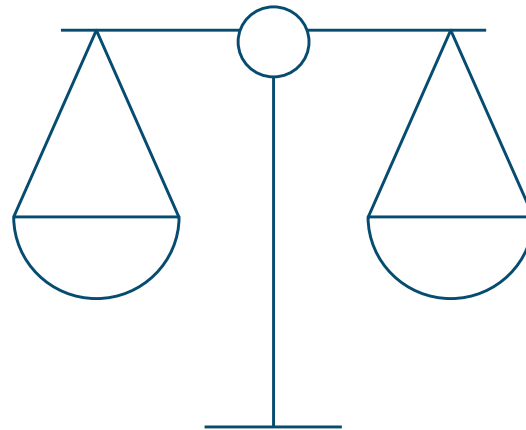
CURRENT MARKET OUTLOOK

Global market environment

As of 30 June 2021

Positives

- Above trend economic growth
- Infrastructure and “recovery” spending
- Accommodative central banks
- Broader vaccine distribution
- Unleashed pent-up consumer demand
- Strong earnings recovery
- Manufacturing robust, services rebounding
- Solvency issues have been limited



Negatives

- Elevated equity and bond valuations
- High inflation
- Rising input costs and supply shortages
- Potential tax increases
- Fed tapering on horizon
- Virus variants / case surges / restrictions
- Heightened geopolitical risks
- Potential for increased tech regulation

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Waning stimulus

As of 30 June 2021

Losing some tailwinds

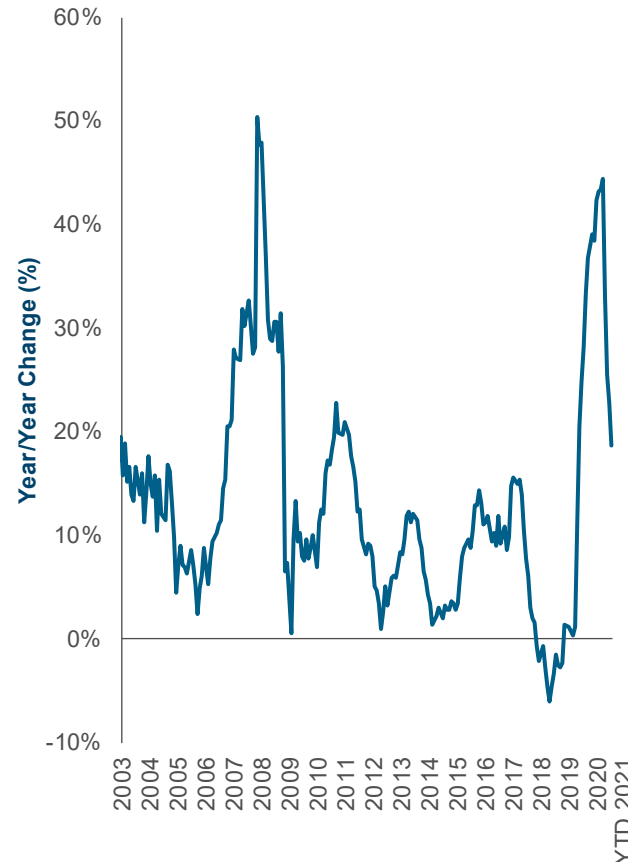
- The rate of asset purchases by the world's largest central banks is fading and the Fed is signaling it may start tapering its buying program soon
- The fiscal stimulus in response to Covid-19 was unprecedented, but as the focus shifts to infrastructure, the tailwind should fade
- U.S. corporations may also face a more challenging tax and regulatory environment

Investment implications

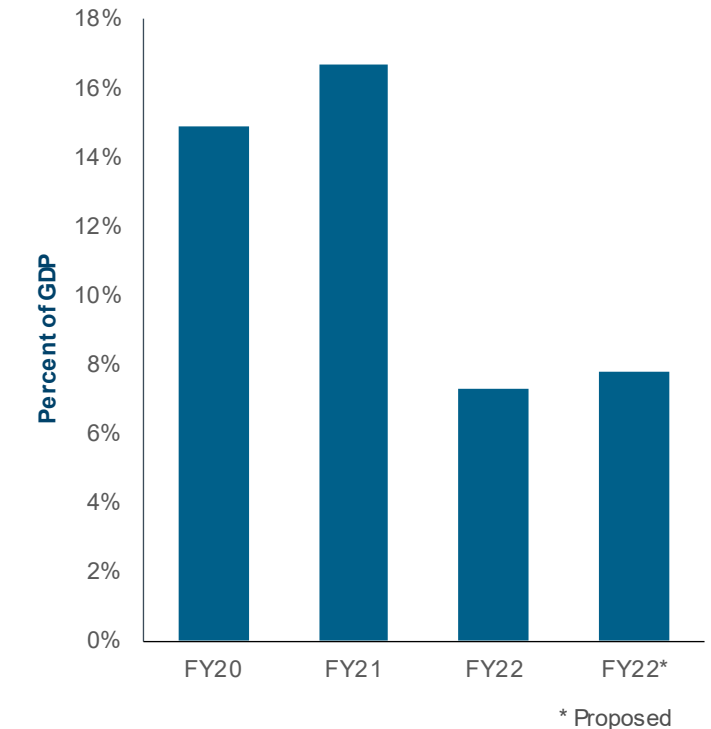
- Slight underweight to stocks as the loss of fiscal and monetary stimulus on top of elevated valuations is a challenging environment for equities

Past peak central bank stimulus

Year-over-Year Change in the Assets of the Four Largest Central Banks¹
31 December 2003 to 30 June 2021



U.S budget deficit: Baseline and current FY'22 proposal



¹ Four Largest Central Banks: U.S. Federal Reserve, European Central Bank, Bank of Japan, Central Bank of China
Sources: Bloomberg Financial L.P., T. Rowe Price

Inflation risk is real

As of 30 June 2021

Transitory or permanent?

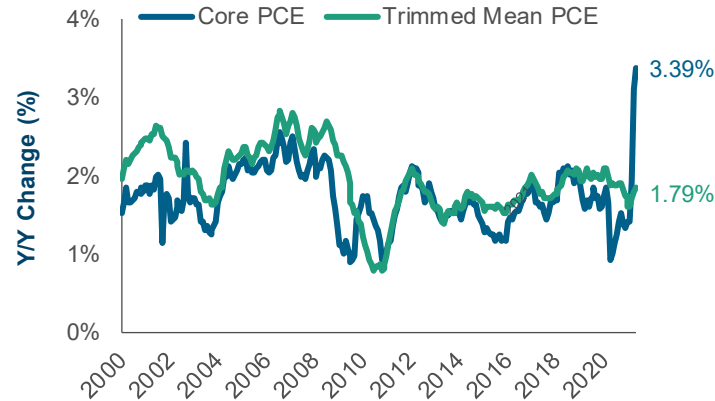
- The re-opening of the U.S. economy has led to extremely elevated inflation measures, as the release of pent-up demand has led to the steep price increases of certain goods and services
- While extreme inflation numbers are expected to be transitory, there is debate as to whether inflation will remain elevated over the longer term – consistency between some measures has fallen
- History indicates that the level of inflation is very important to stock valuations, which tend to fall sharply at high inflation levels

Investment implications

- Keep cautious watch on inflation levels, as core CPI >3% is likely to be troublesome for equities
- Overweight Value and Small-Cap equities, which tend to likely outperform during periods of rising inflation

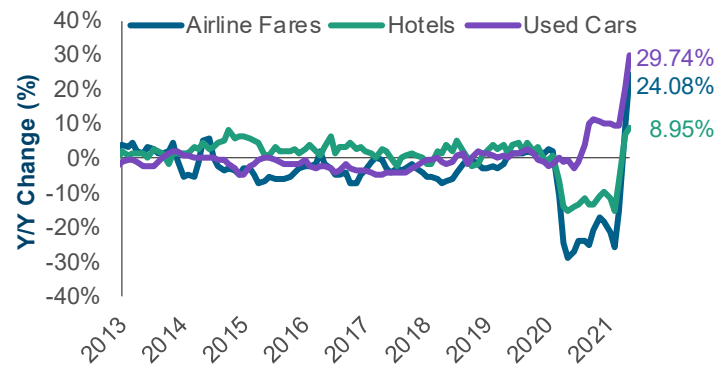
“Sticky” inflation measures

January 2000 to May 2021



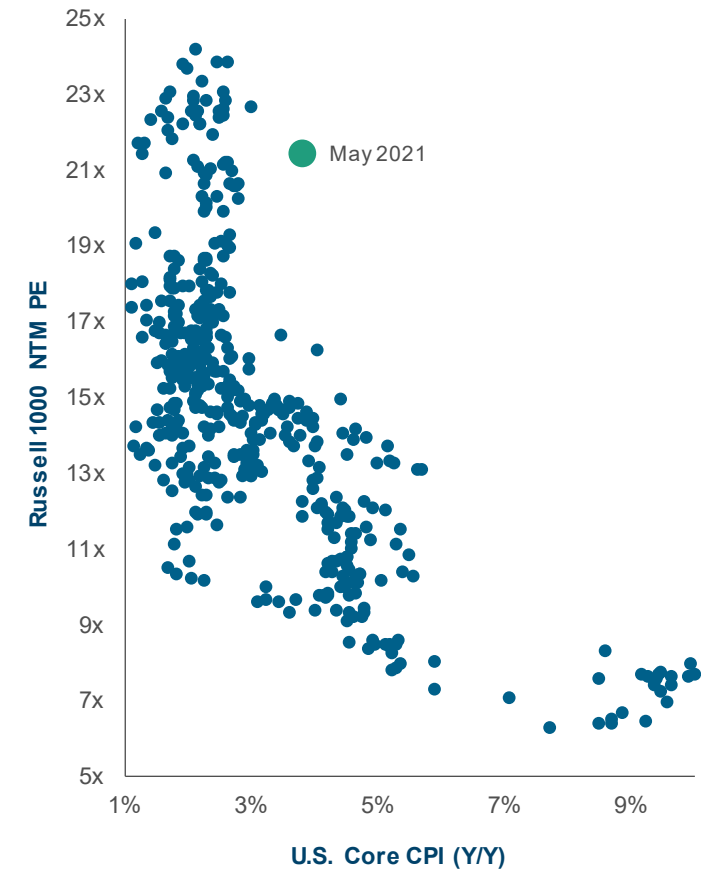
CPI: selected volatile components

January 2013 to May 2021



P/E vs. inflation

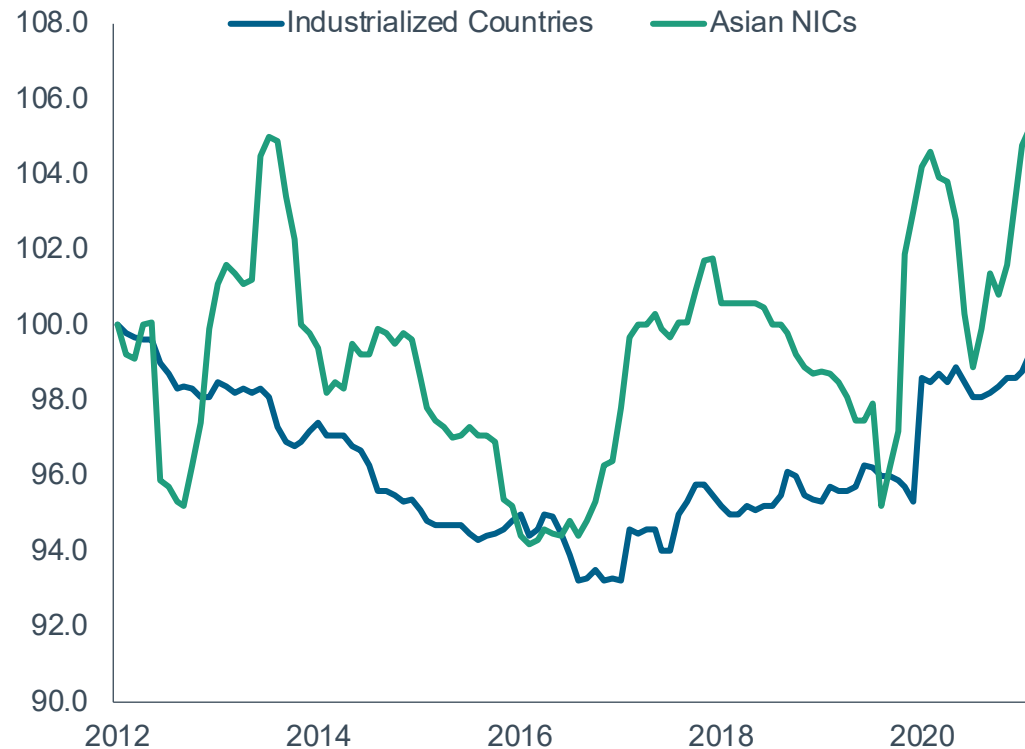
December 1978 to May 2021



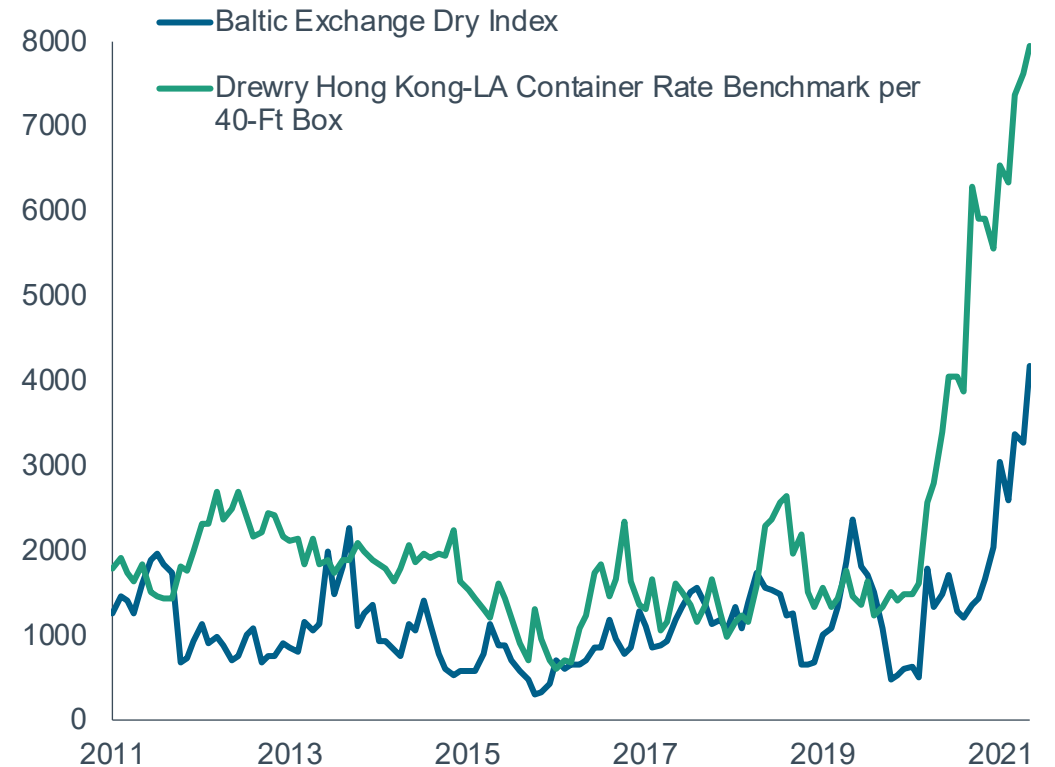
Sources: Haver Analytics/ U.S. Bureau of Economic Analysis, Dallas Fed. Data analysis by T. Rowe Price.

Bottlenecks and imported inflation

Semiconductor and other electronics import prices



Shipping rates



Source: (Left) U.S. Bureau of Labor Statistics, Import Price Index by Origin (NAICS): Semiconductor and Other Electronic Component Manufacturing for Industrialized Countries [COINDUSZ3344], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/COINDUSZ3344>, August 26, 2021. Asian NICs= Asian Newly Industrialized Countries. (Right) Baltic Exchange, Drewry Shipping Consultants, Bloomberg Finance L.P., as of 25 August 2021.

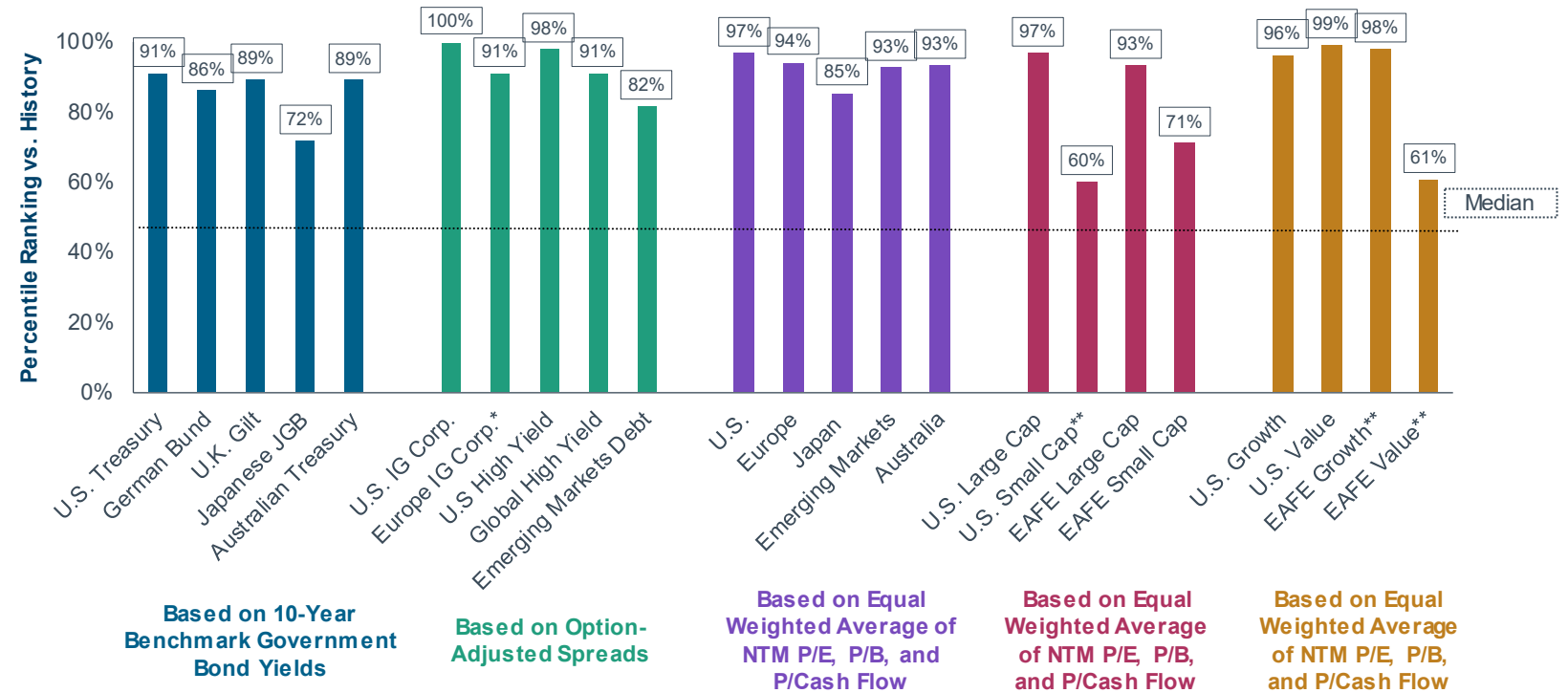
Elevated valuations

As of 30 June 2021

- Valuations are elevated for most asset classes relative to history.
- Government bonds remain expensive but are no longer at the historical highs reached during 2020. Inflation expectations and stronger economic growth have driven rates higher.
- Equity valuations have been supported by low rates. Rising rates may push valuations lower, but higher earnings can be an offset.
- Credit spreads have rebounded from low levels, as both downgrades and default expectations improved during the second half of 2020.

Valuation comparisons

Percentile rankings vs. past 15 years, as of 30 June 2021



*Only includes November 30, 2004 to present due to data availability **Does not include P/Cash Flow due to data availability

Indices used, from left to right above, beginning with U.S. IG Corp.: Bloomberg Barclays U.S. Investment Grade Corporate, Bloomberg Barclays Euro Aggregate Credit, Bloomberg Barclays U.S. Aggregate Credit – Corporate High Yield, Bloomberg Barclays Global High Yield, Bloomberg Barclays Emerging Markets USD Aggregate, MSCI USA, MSCI Europe, MSCI Japan, MSCI Emerging Markets, ASX 200, S&P 500, S&P 600, MSCI EAFE Large Cap, MSCI EAFE Small Cap, S&P 500 Growth, S&P 500 Value, MSCI EAFE Growth, MSCI EAFE Value

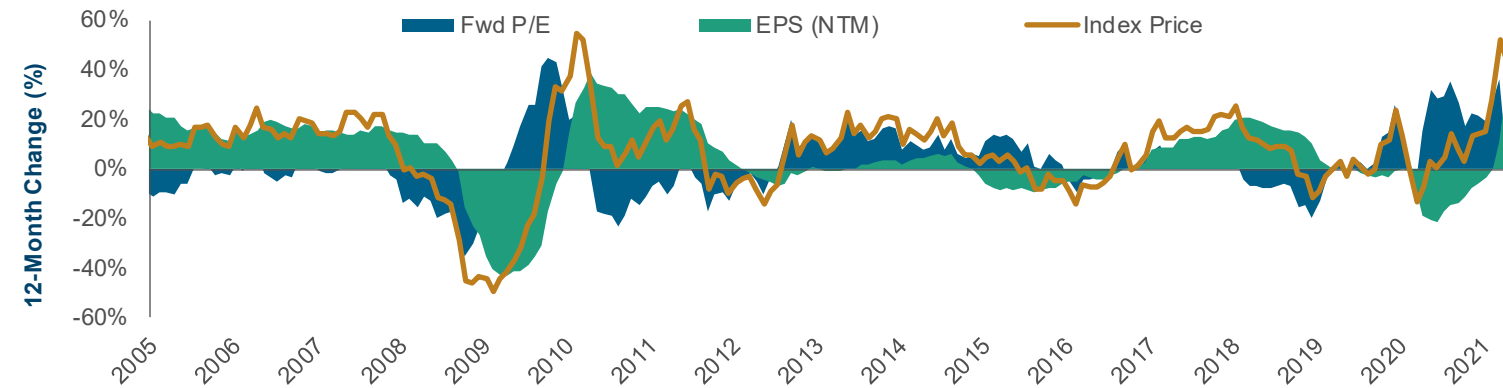
Sources: T. Rowe Price analysis using data from FactSet Research Systems Inc. All rights reserved., Bloomberg Index Services Ltd. Copyright © 2021, Bloomberg Index Services Ltd. Used with permission., MSCI, Standard & Poor's. See Additional Disclosures.

Are stocks too expensive?

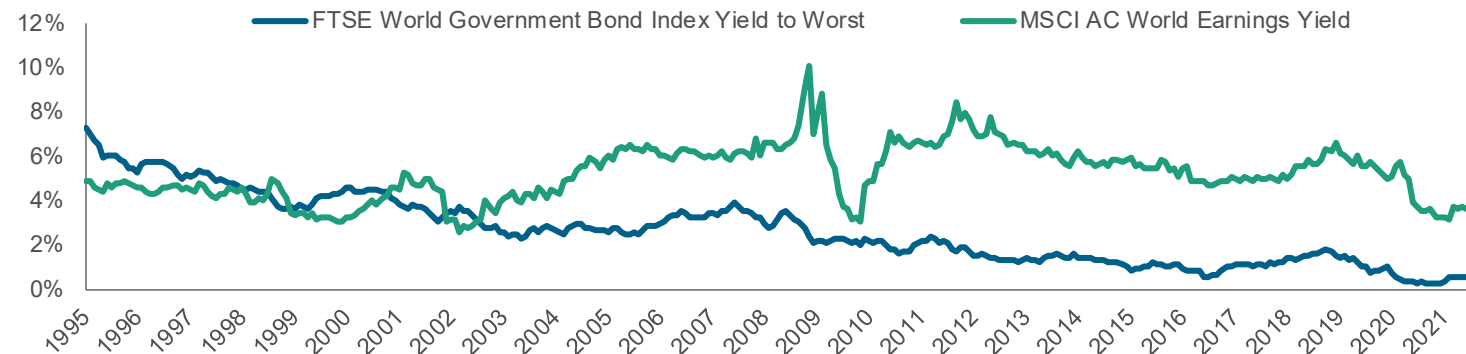
As of 30 June 2021

- While the sharp increase in stock valuations during 2020 can be seen as an increase in sentiment without a corresponding improvement in fundamentals — this is actually the typical pattern seen during a rebound from a sharp economic downturn.
- However, it is important to acknowledge that this means a large uptick in earnings during 2021 and 2022 is already somewhat priced into equity prices.
- Low rates also provides a justification for higher equity valuations. The current earnings yield for global equities remains well above the yield for government bonds — but that yield premium has narrowed over the past 18 months.

MSCI AC World Index returns decomposition



Yield comparisons



Past performance is not a reliable indicator of future performance.

Sources: MSCI, T. Rowe Price analysis using data from FactSet Research Systems Inc. All rights reserved. Please see Additional Disclosures page for more information about this MSCI information.

Source for FTSE Index Data: London Stock Exchange Group plc and its group undertakings (collectively, the "LSE Group"). Please see Additional Disclosures page for more information about this FTSE information.

Key themes and positioning



As of 30 June 2021

STOCKS VS. BONDS

- Underweight to stocks relative to bonds
- Supportive macro backdrop, but growth and stimulus are peaking
- Elevated valuations leave little room for upside

VALUE EQUITY

- Likely to outperform in a recovery, given higher concentration of cyclically sensitive companies
- Potential for financials to rebound due to recovery of loss provisions
- Historically cheap valuations relative to Growth

EMERGING MARKETS EQUITY

- Strong global growth and trade while relative valuations remain attractive
- Commodity prices have rebounded
- EM currencies look attractive, benefit from a potentially weaker dollar

HIGH YIELD & FLOATING RATE BONDS

- Yield advantage and lower duration profile
- Low default expectations on improving business conditions and energy price stabilization
- Floating rate bonds sit higher in the capital structure with a more defensive sector profile

This material is not intended to be investment advice or a recommendation to take any particular investment action.



CONCLUSIONS

Conclusions



More retirement solutions are needed to address the retirement saving gap



Sustainable income requires actively managed solutions, focusing on downside risks



Low yields, expensive assets and inflation risks make the current environment difficult to navigate

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Asset class benchmark representations

ASSET CLASS	ASSET CLASS REPRESENTATIVE BENCHMARK
US Treasuries	Bloomberg Barclays US Treasury
German Bunds	Bloomberg Barclays Euro-Aggregate Treasury Germany TR Index Value Unhedged EUR
Japan Government Bonds	Bloomberg Barclays Asian-Pacific Japan Treasury Total Return Index Value Unhedged JPY
UK Gilts	Bloomberg Barclays Sterling Gilts Total Return Index Value Unhedged GBP
US Aggregate Bonds	Bloomberg Barclays US Agg Total Return Value Unhedged USD
Euro Aggregate 1-10 Year Bonds	Bloomberg Barclays Euro-Aggregate 1-10 Year TR Index Value Unhedged EUR
Global Aggregate Bonds	Bloomberg Barclays Global-Aggregate Total Return Index Value Hedged USD
Global Aggregate ex USD	Bloomberg Barclays Global Aggregate ex-USD Total Return Index Value Unhedged USD
US Investment Grade Credit	Bloomberg Barclays U.S. Corporate Investment Grade (USD) TR Index Unh USD
Global Investment Grade Credit	Bloomberg Barclays Global Agg Corporate Total Return Index Value Unhedged USD
Euro Investment Grade Credit	Bloomberg Barclays Euro-Aggregate: Corporate – A Total Return Index Hedged USD
US High Yield Credit	Bloomberg Barclays US Corporate High Yield Total Return Index Value Unhedged USD
European High Yield Credit	Bloomberg Barclays Pan-European High Yield (Euro) TR Index Hedged USD
Global High Yield	Bloomberg Barclays Global High Yield Total Return Index Value Unhedged USD
Emerging Market Credit	JP Morgan CEMBI BROAD DIVERSIFIED IR
Emerging Market Global Diversified Bonds	JP Morgan GBI-EM Global Div Traded Index Modified Duration
Global REITs	FTSE EPRA/NAREIT Developed Index Net TRI USD
Global High Dividend Equities	MSCI ACWI High Dividend Yield Index
Global Growth Equities	MSCI World Growth Net Total Return USD Index
Options Writing	MSCI ACWI Net Total Return USD Index
Global Government Bonds	Bloomberg Barclays Global Aggregate Treasuries Total Return Index Value Unhedged USD
Australian Government Bonds	Bloomberg Barclays Australian Government Bond Index

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