



Fourth Quarter 2022

Trend-Following: Why Now? A Macro Perspective

Executive Summary

Trend-following managers are having a banner year so far in 2022 amidst a year of turmoil for traditional portfolios. Trend following has provided valuable diversification¹ to investors who stuck with the strategy against losses in traditional allocations; the SG Trend Index has returned 36% year-to-date through September 2022, while the Global 60/40² declined -20%.

Investors exploring an allocation to trend-following may be wondering if they are “late to the trade,” while also anchoring their expectations to the lean 2010s. Both the macroeconomic picture and empirical evidence, however, suggest that strong performance for trend-following may persist, making it a potentially valuable source of diversifying returns during

a challenging time for the rest of investors’ portfolios.

In this article, we highlight trend-following’s track record of delivering strong long-term returns and strong performance in downturns for traditional assets—even after factoring in the 2010s. We examine the macroeconomic drivers that stymied trend-following during the 2010s, finding them exceptional versus history. We then assess the current economic outlook and identify several reasons that macroeconomic volatility—and correspondingly large market moves—are unlikely to subside in the near term, providing a favorable backdrop for trend-following performance. Finally, we note several enhancements to a trend-following approach that potentially make it easier for investors to stay invested.

¹ Diversification does not eliminate the risk of experiencing investment losses.

² Global 60/40 refers to a monthly-rebalanced portfolio that is 60% MSCI World and 40% Barclays Global Aggregate Hedged USD.

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Trend-Following's Strong Track Record Is Undiminished

Trend-following's 2022 performance has many investors re-examining the strategy as a potential diversifier to traditional portfolios. However, some are leery of a strategy that languished throughout the 2010s. The longer-term track record for the strategy helps contextualize this period of underperformance. As seen in **Table 1**, from its inception in January 2000 to September 2022, the SG Trend Index achieved higher total returns and slightly higher risk-adjusted returns than the traditional Global 60/40 stock/bond portfolio (Sharpe ratios of 0.4 versus 0.3 for the SG Trend Index and 60/40, respectively). Importantly, in the largest drawdowns for

Global 60/40, trend-following managers tended to deliver positive and diversifying returns, as seen in **Figure 1**.

Despite delivering long-term attractive returns and outperformance in 60/40 drawdowns, trend-following was a disappointing strategy to the many investors who allocated to it post-GFC. Performance was lackluster for the better part of the 2010s—both in an absolute sense and relative to traditional portfolios. This decade of relatively anemic performance led many to abandon the strategy, missing out on strong returns and much-needed diversification in 2022.

Table 1: Trend-Following Has Outpaced 60/40 Since 2000

Returns of Trend-Following and Global 60/40 by Decade
January 1, 2000 - September 30, 2022

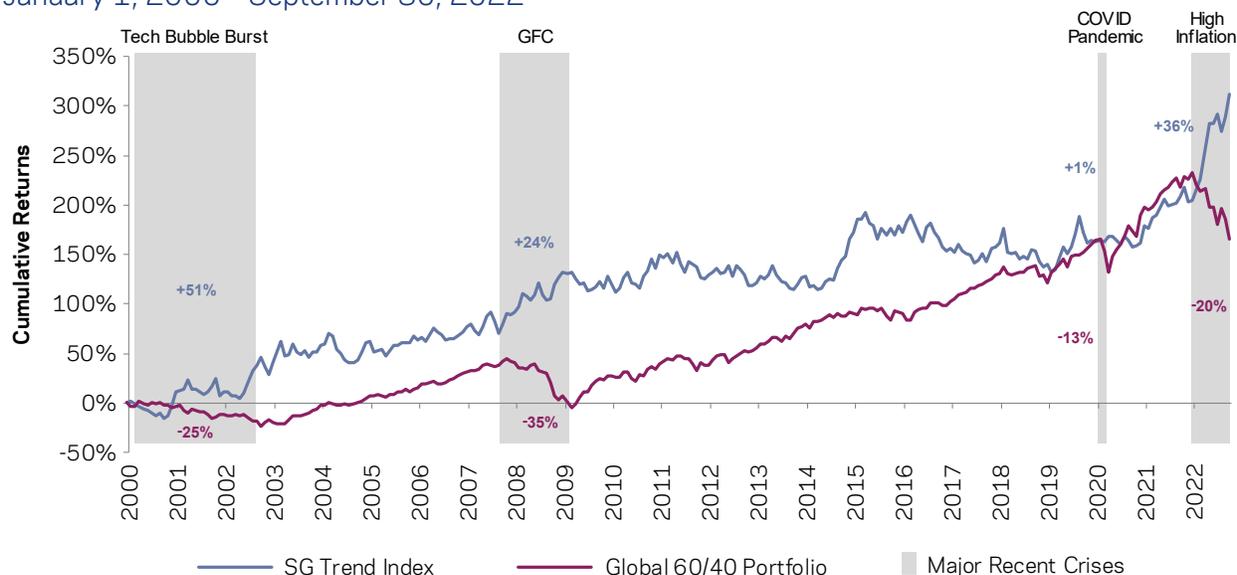
	2000 - 2009	2010 - 2019	2020 - Present	Full Sample
SG Trend Index Return (Ann.)	8.2%	1.8%	17.9%	6.4%
SG Trend Index Realized Volatility	16.1%	11.3%	11.0%	13.6%
Global 60/40 Return (Ann.)	2.5%	7.5%	0.2%	4.4%
Global 60/40 Realized Volatility	9.9%	7.7%	13.5%	9.6%
SG Trend Index Correlation to Global 60/40	-0.2	0.2	-0.3	-0.1

Source: Bloomberg. Global 60/40 is 60% MSCI World, 40% Barclays Global Aggregate Hedged USD. Time period based on availability of data. Full Sample is from January 1, 2000 - September 30, 2022. Past performance is not a reliable indicator of future performance.

Figure 1: Trend-Following Outperformed 60/40 during Notable Market Crises

Returns of Trend-Following and Global 60/40 Over Time

January 1, 2000 – September 30, 2022



Source: Bloomberg. Global 60/40 is 60% MSCI World, 40% Barclays Global Aggregate Hedged USD. Time period based on availability of data. Major Recent Crises are roughly based on the largest equity market drawdowns over this period. Past performance is not a reliable indicator of future performance.

Our [research](#)³ showed the 2010s was a notable anomaly relative to over a century of market data. Markets displayed unusually small moves, which coincided with a global economic backdrop that was relatively stable and featured few (if any) major crises. While some might point to a strong uptrend in U.S. equity markets over the decade, they represent only a small percentage of the hundreds of

markets trend-followers usually trade. Also, equity drawdowns that did manifest tended to be short-lived, e.g., the taper tantrum in late-2013 or the sell-off in late-2018. Looking more broadly across asset classes and global markets, our research showed market moves were smaller-than-usual across major asset classes, causing unusual headwinds for diversified trend-following strategies.

Anomalous Macro Forces Helped Cause Trend-Following's Lean 2010s

While our earlier research addresses the “what,” an equally salient question in forming forward-looking expectations for trend-following strategies is “why.” Why were price moves muted in the 2010s, and should we expect the same moving forward?

The 2010s featured a unique set of fundamental macroeconomic forces that created an unfavorable environment for persistent price trends. The backdrop featured (1) benign macroeconomic shocks, (2) soft growth and stubbornly low inflation, and

3 Babu, A., et al. 2020 “You Can’t Always Trend When You Want.” *The Journal of Portfolio Management* 46 (4): 1-17.

(3) central bank policy constrained by an effective lower bound on long-maturity bond yields. This led to an environment in which asset valuations tended to remain rich and central banks suppressed macroeconomic and financial market volatility, stymying price trends before they could persist.

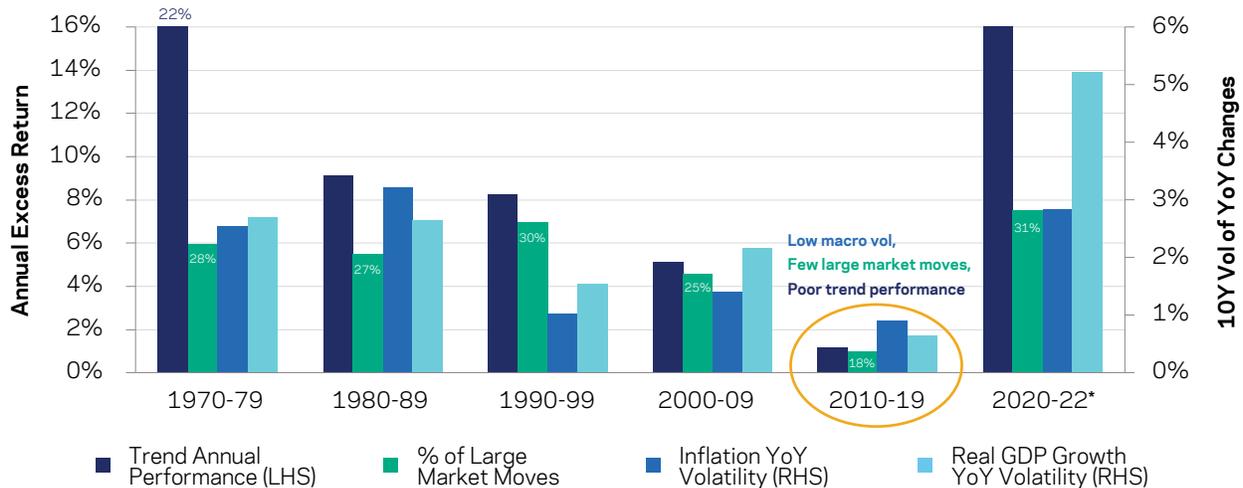
At their core, trend-following strategies capture the tendency of markets to gradually incorporate new information. This tendency creates persistent price trends, which may allow trend-following to be profitable on average. Notably, large market drawdowns and crises generally tend to have identifiable catalysts and to evolve gradually (e.g., GFC, 2022), which explains why trend-following strategies tend to perform particularly well in such environments.

In the 2010s, new information – the fundamental economic shocks that hit the economy—tended to be smaller in size and less persistent in duration than in other periods. To be sure, macroeconomic news ebbed and flowed; but in contrast to major macroeconomic episodes that bookended the decade—the GFC, COVID-19, and the current bout of inflation—macroeconomic events in the 2010s tended to be more moderate.

Figure 2 highlights this. It compares several metrics across decades: volatility in U.S. GDP growth and inflation, the percentage of large market moves,⁴ and the performance of trend-following in those periods. There is a direct relationship between macroeconomic volatility and the size of market moves, with the latter strongly (and intuitively) associated with trend-following performance.

Figure 2: The 2010s Featured Little Macroeconomic or Market Volatility

U.S. Macro Volatility, % Large Market Moves, and Hypothetical Trend / SG Trend Index Performance by Decade
January 1, 1970 - September 30, 2022



* The final set of bars only cover the partial decade from January 1, 2020 through September 30, 2022.
Source: AQR, Bloomberg, St. Louis Federal Reserve, U.S. Bureau of Labor Statistics. Trend is the hypothetical Century of Trend Following backtest (net of 2%/20% management/performance fees and net of transaction costs) from January 1, 1970 to December 31, 1999 and then SG Trend Index from January 1, 2000 (its inception) to September 30, 2022. % of Large Market Moves are defined as a greater than 1.5 standard deviation move in the set of markets considered in Babu et al (2020). Time period based on availability of data. Trend returns are excess of U.S. 3 Month Treasury Bills.

4 We define a large market move as being greater than 1.5 standard deviations using the methodology and set of markets considered in Babu et al. (2020)

An even more salient contributor to the dearth of persistent price trends was the ability of central banks to suppress macroeconomic and, correspondingly, financial market volatility. Two key factors allowed central banks to aggressively respond to macroeconomic developments, which had a stabilizing effect on asset prices and thwarted persistent price trends.

First, central banks faced very few tradeoffs in the 2010s. Throughout most of the decade, inflation remained below target and economic growth was tepid. In response to negative economic news, therefore, monetary policymakers were able to add stimulus without having to worry about the inflation side of their mandate.

Second, while growth and inflation simultaneously running cold (or hot) is hardly anomalous, the fact that monetary policy was highly constrained by the effective lower bound on yields made the 2010s exceptional. Typically, nominal bond yields in the range of 0 to 3 percent (real yields between -2 and 1 percent), would be *highly* stimulative, spurring spending and leading to stronger economic growth and higher inflation. For a variety of

reasons, however, post-GFC these yield levels were far less expansionary.⁵ As a result, central banks were able to drive yields to very low levels (primarily via forward guidance and asset purchases) in response to deteriorating economic conditions, without fear of stoking inflation.

While frustrating for central bankers, the environment of low growth, low inflation, and constrained monetary policy proved highly positive for both stock and bond markets—both enjoyed persistently rich valuations supported by exceptionally low interest rates—and highly negative for trend-following. Facing few trade-offs between their growth and inflation objectives, and with little perceived risk of over-stimulating to the point of stoking inflation, central banks could be attentive to downside risks to growth by pivoting in a dovish direction at the first sign of economic trouble.⁶ As this cycle reoccurred throughout the 2010s, monetary policy played a role in keeping reactionary market moves subdued. For example, equity market selloffs driven by concerns about economic growth were met with aggressive monetary easing, causing subsequent rebounds and a lack of large, sustained market moves.

5 There is a large volume of literature on this topic. Put succinctly, “r-star”—the real policy rate consistent with a neutral policy stance—fell to a very low level in the 2010s.

6 With diminished fears of inflation, central bankers used asset purchases to address economic trouble and compressed the volatility and risk premium in bonds. With economic trouble also often associated with falling equity markets, increased monetary stimulus which lowered the cost of capital during times of equity market stress reinforced the view that central bankers also sought to support the equity market. These dynamics caused a similar compression in the volatility and risk premium in equities. As a result, valuations in these asset classes remained elevated with fewer large and sustained market moves, particularly to the downside.

The Return of Macro Volatility and Major Market Moves

One of the key findings from our study of trend performance was that trend-following maintained its ability to perform well when market moves were large, *even within the 2010s*. Based on this finding, we asserted trend-following would deliver better returns if market moves reverted to historical norms.

Now, given the backdrop of persistently high inflation, a rapid and resolute shift in central banks' policies, and the unexpected war in Ukraine, macroeconomic volatility is on the rise. As we would expect, this rise in macroeconomic volatility has also been accompanied by larger market moves and improved trend-following performance. So

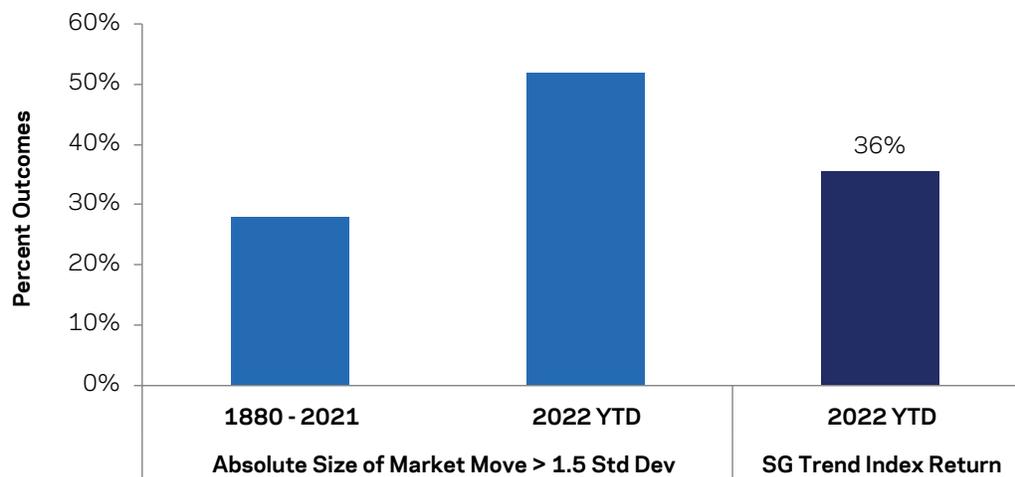
far in 2022, market moves are significantly larger than average, and the SG Trend Index is on track for its best annual return since its inception in 2000, as shown in **Figure 3**. The current environment provides out-of-sample evidence that the relationship between large market moves and trend performance remains intact.

Looking forward, the evidence suggests there is a reasonable chance an environment of elevated macro volatility persists. First, we observe that periods of significant macro volatility tend to be followed by continued elevated macro volatility, as shown in **Figure 4**.

Figure 3: Large Market Moves Helping Drive Trend-Following to a Record Year

Market Moves versus SG Trend Performance

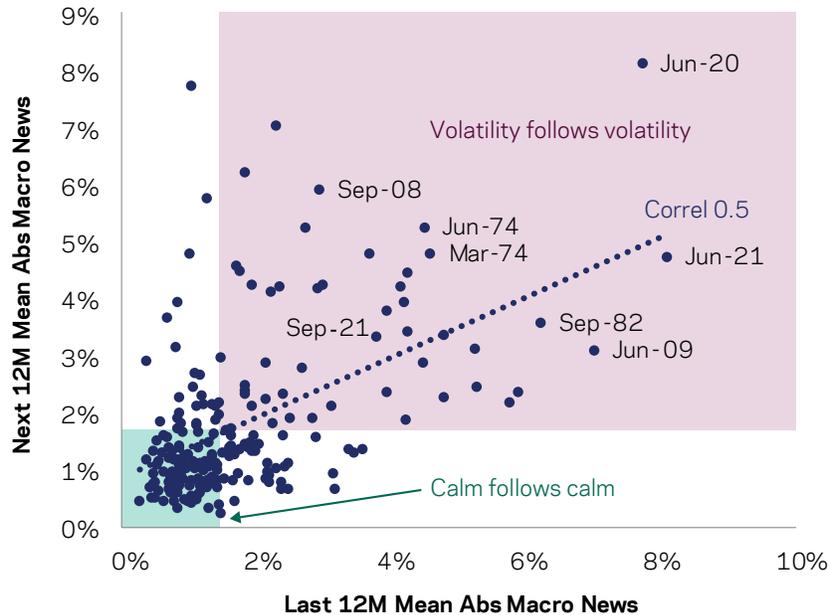
As of September 30, 2022



Source: AQR, Bloomberg, Market Moves are defined as a greater than 1.5 standard deviation move in the set of markets considered in Babu et al (2020). SG Trend's highest realized calendar year annual return since its inception on January 1, 2000 was 26.1% over the period from January 1, 2002 to December 31, 2002. Time period based on availability of data.

Figure 4: Significant Macro Volatility Tends To Persist

Macro News Indicator, Last 12 Months versus Next 12 Months
January 1, 1972 - September 30, 2022



Source: AQR, Bloomberg, St. Louis Federal Reserve, U.S. Bureau of Labor Statistics. The Macro News Indicator is based on changes in real GDP growth, changes in inflation, inflation surprises, real GDP growth surprises, and industrial production growth surprises. Changes are calculated as simple difference between year-on-year inflation or growth and year-on-year inflation or growth 12 months earlier. Surprises are calculated as simple difference between year-on-year inflation or growth and 1-year forecasts 12 months earlier from the Fed Survey of Professional Forecasters. Time period based on availability of data.

Second, there are several key challenges impeding a return to a calm economic environment, making it improbable that economic conditions will settle into anything resembling their pre-pandemic stability within the next year or two at a minimum. A return to such a quiet state of the world would likely require a substantial moderation of global inflation, and history suggests this is unlikely to occur abruptly. Even if the world does revert to a quiet state again, it would likely be associated with new economic and price trends

before getting there. Meanwhile, the lagged impact of monetary tightening will likely have an increasingly pronounced impact on growth in 2023, with many forecasters projecting recession in the U.S. and Europe. Finally, given current trends in monetary policy and the return of the difficult trade-offs between growth, unemployment, and inflation that policymakers face, it is less likely central banks will be able to suppress market moves to the extent they did in the prior decade.

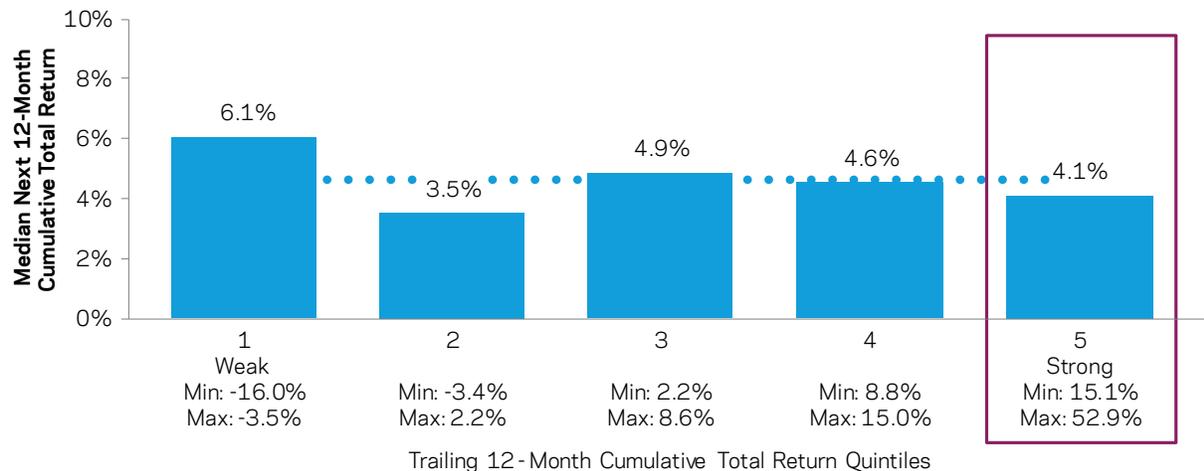
Trend-Following Is Back, With Some New Enhancements

After a strong period of performance for trend-following, many are worried that they will be “late to the trade” and recent performance will reverse. Based on the likelihood for macro volatility to persist and the current economic backdrop supporting the persistence of large market moves, we think there is a reasonable

chance that strong trend-following returns continue. **Figure 5** provides a more objective perspective on this question. There is no tendency for trend-following strategies to perform worse than average following periods of extremely strong performance.

Figure 5: No Tendency for Trend-Following To Underperform Following Periods of Strong Performance

Median Next 12-Month Total Return Sorted by Prior 12-Month Returns - SG Trend Index
January 1, 2000 - September 30, 2022



Source: AQR, Bloomberg. The chart above sorts realized 12-month cumulative total returns for the SG Trend Index into quintiles. We then graph the median next-12m cumulative total returns in each trailing return quintile. The dotted line represents the average across all five bars. Time period based on availability of data.

There are strong fundamental reasons to consider trend-following as a strategic part of a diversified asset allocation given the current and prospective environment. That said, we recognize the difficulty of sticking with the strategy through a period like the 2010s. What are ways for investors to mitigate this challenge? One approach may be to implement a more diversified approach to trend-following that may provide better average returns and

even stronger protective properties, making it easier for investors to stick with the strategy over the long-term.

We believe a trend-following portfolio that incorporates alternative markets and economic trend signals can achieve these objectives. Importantly, alternative markets and economic trends satisfy trend-following’s dual mandate of positive returns and protective properties,

allowing investors to achieve an improved performance profile with more potential sources of returns in prolonged market downturns.

For example, if we consider a 40/40/20 mix of traditional price trend / economic trend / alternative markets, we note a much-improved returns picture over a price trend-only approach, as shown in **Figure 6**. Moreover, we expect these enhancements to also help deliver better protective properties as shown in in **Figure 7**.

Diversified Trend-Following Exhibits Higher Returns and Better Protective Properties than Price-Based Trend-Following

Figure 6: Hypothetical Annualized Returns

January 1, 1990 - September 30, 2022

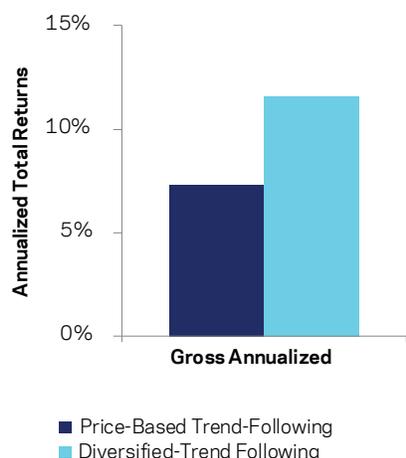


Figure 7: Hypothetical Performance During the 5 Largest Drawdowns for MSCI World Index

January 1, 1990 - September 30, 2022



* The current drawdown is not over.

Source: Bloomberg, AQR. The Hypothetical Diversified Trend-Following Strategy performance is a backtest that is 40% Price-Based Trend Following, 40% Economic Trend Following and 20% Alternative Trend Following. Returns for the hypothetical strategies are net of estimated transaction costs and net of 1.25% management and 20% performance fees each. Drawdowns are the five worst peak-to-trough drawdowns for MSCI World over this period. Please read performance disclosures in the Appendix for a description of the investment universe and the allocation methodology used to construct the hypothetical strategies. Hypothetical data has inherent limitations, some of which are disclosed in the Appendix. This analysis is provided for illustrative purposes only and is not based on an actual portfolio AQR manages. Diversification does not eliminate the risk of experiencing investment losses.

Looking ahead, we have conviction that the overall picture for a diversified and innovative trend program looks highly compelling and may be able to serve as a valuable diversifier to investor portfolios in a period of continued economic uncertainty.

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Data Information

Hypothetical Price-Based Trend-Following Strategy

The Hypothetical Price-Based Trend-Following Strategy model uses data from January 1880 onward. The investment strategy is based on trend-following investing which involves going long markets that have been rising and going short markets that have been falling, betting that those trends over the examined look-back periods will continue. The strategy was constructed with an equal-weighted combination of 1-month, 3-month, and 12-month trend-following strategies for 67 markets across 4 major asset classes: 29 commodities, 11 equity indices, 15 bond markets, and 12 currency pairs. Since not all markets have return data going back to 1880, we construct the strategies using the largest number of assets for which return data exist at each point in time. We use futures returns when they are available. Prior to the availability of futures data, we rely on cash index returns financed at local short rates for each country. Please see **Figure 2** for additional details. The strategy targets a long-term volatility target of 10% but does not limit volatility during periods where realized volatility may be higher or lower than this number.

Hypothetical performance is gross of advisory fees and net of transaction costs, unless stated otherwise. In order to calculate net-of-fee returns, we subtracted a 1.25% annual management fee and a 20% performance fee from the gross-of-fee, net-of-transaction-cost returns to the strategy. The transactions costs used in the strategy are based on proprietary estimates of average transaction costs for each of the four asset classes, including market impact and commissions. The transaction costs are assumed to be twice as high from 1993 to 2002 and six times as high from 1880-1992. The transaction costs used are shown in **Figure 1**.

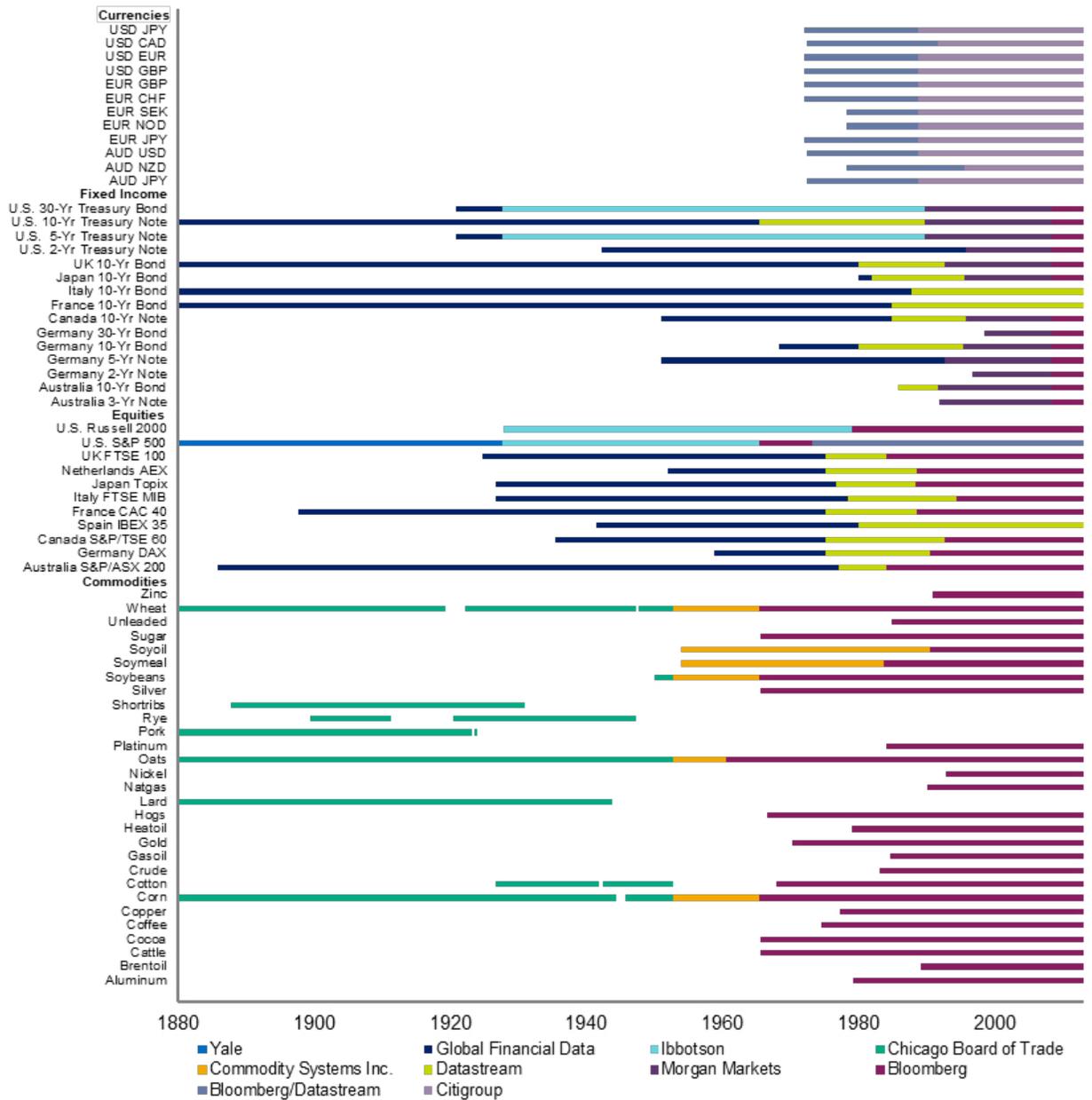
This model is not based on an actual portfolio AQR manages.

The benchmark and relevant cash rate is assumed to be ICE BofA 3-Month T-Bill. Prior to 1929 when 3-month Treasury bills became available, the benchmark and relevant cash rate is assumed to be the NYSE call money rates (the rates for collateralized loans) through 1920 and returns on short-term government debt (certificates of indebtedness) from 1920 until 1929.

Figure 1

Asset Class	Time Period	One-Way Transaction Costs (as a % of notional traded)
Equities	1880 – 1992	0.34%
	1993 – 2002	0.11%
	2003 – Present	0.06%
Fixed Income	1880 – 1992	0.06%
	1993 – 2002	0.02%
	2003 – Present	0.01%
Currencies	1880 – 1992	0.18%
	1993 – 2002	0.06%
	2003 – Present	0.03%
Commodities	1880 – 1992	0.58%
	1993 – 2002	0.19%
	2003 – Present	0.10%

Figure 2



Limitations of Backtested Performance.

The returns presented reflect hypothetical performance an investor would have obtained had it invested in the manner shown and does not represent returns that any investor actually attained. The information presented is based upon the following hypothetical assumptions.

Hypothetical Economic Trend-Following Strategy Backtest Construction

The Hypothetical Economic Trend-Following Strategy uses data from February 1970 onward. The investment strategy is based on trend following which for each theme (Growth, Inflation, International Trade, Monetary Policy, Risk Aversion) and within each asset class, takes a long position in assets in which economic trends are improving and a short position in assets

in which economic trends are deteriorating. Each individual position is sized to target the same amount of volatility, both to provide diversification and to limit the portfolio risk from any individual market. The theme portfolio across all assets is scaled to target 10% forecasted annual volatility.

Not all markets and assets have returns going back to 1970; details outlined on the following page.

Growth: Growth trends are captured using one-year changes in forecasts of real GDP growth. From 1990 onward forecast data is from Consensus Economics. Prior to 1990, we use one-year changes in realized year-on-year real GDP growth, lagged one quarter (this definition is equivalent to changes in forecasts assuming that real GDP growth follows a random walk). The series is from the OECD. Increasing growth is assumed to be bullish for equities (cash-flow impact), commodities (increasing demand), and currencies (Balassa-Samuelson hypothesis), and bearish for fixed income (both government bonds and interest rates) via both inflationary pressures and upward pressure on real interest rates.

Inflation: Inflation trends are captured using one-year changes in forecasts of CPI inflation. From 1990 onward forecast data is from Consensus Economics. Prior to 1990, we use one-year changes in realized year-on-year CPI inflation, lagged one quarter (this definition is equivalent to changes in forecasts assuming that CPI inflation follows a random walk). The series is from the OECD. Increasing inflation is assumed to be bearish for equities (see Katz and Lustig (2017)), bullish for currencies (see Clarida and Waldman (2008)), and bearish for fixed income.

International Trade: International trade trends are captured using one-year changes in spot exchange rates against an export-weighted basket. Data is from DataStream. A depreciating currency is bullish for equities (exports become more competitive), bearish for currencies (very similar to price momentum), bearish for fixed income (other things equal, a depreciating currency reduces the pressure on a central bank to reduce interest rates), and bearish for commodities (depreciation of the currencies of commodity consumers means commodities, which are generally priced in USD, are effectively more expensive).

Monetary Policy: Monetary policy trends are captured using one-year changes in the front end of the yield curve. From 1992 onwards, I use two-year yields, while prior to 1992 I use Libor and its international equivalents. Both data series are from Bloomberg. Expansionary monetary policy is bullish for equities (see Bernanke and Kuttner (2005)), bullish for currencies (see Eichenbaum and Evans (1995)), bullish for commodities, and bearish for fixed income.

Risk Sentiment: Changes in risk sentiment are captured using one-year equity market excess returns. Data is from DataStream. Increasing risk sentiment — i.e., strong equity market returns — is bullish for equities, commodities, and currencies, and bearish for fixed income.

The model employs relatively simple measures as they afford long data availability and are less susceptible to concerns about data mining. The strategy is therefore intended as a proof of concept, and can potentially be enhanced by employing additional and improved measures of economic trends.

Backtest returns are hypothetical gross of transaction costs and fees. Even after adjusting for transaction costs and fees, backtest returns are likely overstated, despite best effort to employ simple and transparent signals, due to unavoidable hindsight bias. Hypothetical data has inherent limitations, some of which are disclosed herein.

As the backtest is constructed to take a long position in assets in which economic trends are improving and a short position in assets in which economic trends are deteriorating, the strategy would likely underperform in a period of sharp reversals across asset classes and investment themes or in an environment in which price trends and economic trends diverge. However, due in part to the diversification benefits of the four asset classes and four investment themes, the performance of the backtest has been consistent over a wide variety of macroeconomic and financial environments over the last 50 years.

Hypothetical Economic Trend-Following Strategy Universe:

Equity index return data is from Bloomberg. Start dates are the earliest available date of the series:

- 1970: Australia, Germany, Canada, Spain, France, Italy, Japan, Netherlands, U.K., U.S.
- 1975: Switzerland
- 1980: Denmark, Hong Kong, Sweden
- 1988: New Zealand

Government bond return data is from Bloomberg and DataStream. Start dates are

- 1970: Germany, Canada, U.K., U.S.
- 1980: Japan
- 1981: Switzerland
- 1985: Denmark
- 1986: Australia
- 1987: Sweden

Currency return data is from Citi and Reuters. Start dates are

- 1971: Germany, Japan, Switzerland, U.K.
- 1972: Australia, Canada
- 1978: New Zealand, Sweden

Interest rate futures return data is from IFS. Start dates are

- 1987: U.S.
- 1988: U.K.
- 1989: Australia, Europe (Euribor)
- 1991: Canada, New Zealand, Switzerland

Commodity futures return data is from Bloomberg. Start dates are

- 1970: Cattle, Corn Cotton, Hogs, Soybeans, Soymeal, Soyoil, Sugar, Wheat
- 1974: Coffee
- 1979: Heat Oil
- 1983: Crude Oil
- 1984: Gas Oil
- 1985: Unleaded
- 1989: Brent Oil
- 1990: Natural Gas
- 1991: Zinc
- 1993: Nickel

Hypothetical Alternative Trend-Following Strategy

The Hypothetical Alternative Trend-Following Strategy was constructed with an equal-weighted combination of 1-month, 3-month, and 12-month trend-following strategies for markets across 6 major asset groups – equity factor portfolios, credit indices, interest rate swaps, emerging currencies, alternative commodities, and volatility futures – from January 1990 onward. Since not all markets have the same length of historic return data available, we construct the strategies using the largest number of assets for which return data exist at each point in time. We use futures returns when they are available. The strategy targets long-term volatility target of 10% but does not limit volatility during periods where realized volatility may be higher or lower than this number.

In order to calculate net-of-fee returns for the time series momentum strategy, we subtracted a 1.25% annual management fee and a 20% performance fee per annum from the gross-of-fee returns to the strategy. The performance fee is calculated and accrued on a monthly basis, but is subject to an annual high-water mark. In other words, a performance fee is subtracted from the gross returns in a given year only if the returns in the fund are large enough that the fund's NAV at the end of the year exceeds every previous end of year NAV. The transactions costs used in the strategy are based on proprietary estimates of transaction costs for each market traded, including market impact and commissions.

This model is not based on an actual portfolio AQR manages.

The benchmark and relevant cash rate is assumed to be 3-month Treasury bills.

The Hypothetical Diversified Trend-Following Strategy (“Combined Trends”) has a 40% allocation to the Hypothetical Price-Based Trend-Following Strategy, a 40% allocation to the Hypothetical Economic Trend-Following Strategy and a 20% allocation to the Hypothetical Alternative Trend-Following Strategy.

Broad-based securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index.

The SG Trend Index is designed to track the largest 10 (by AUM) CTAs and be representative of the managed futures trend-following space.

The MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets.

The Bloomberg Barclays Global Aggregate Bond Index is a market-weighted index of global government, government-related agencies, corporate and securitized fixed-income investments.

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