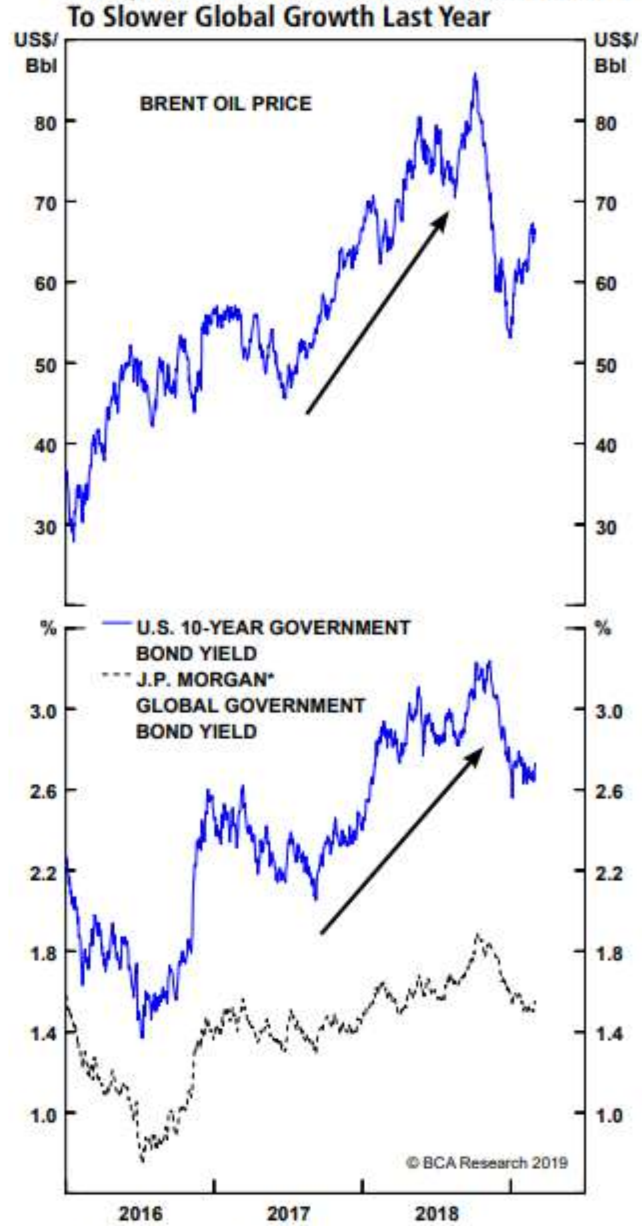
February 2019

While none of the 4 major U.S. indexes have regained last year's highs yet, the rally from Christmas Eve's panic low continued in February. From Friday's Global Investment Strategy's Weekly Report:

There is little mystery as to why global growth slowed in 2018. Chinese credit growth fell steadily over the course of the year, which generated a negative credit impulse. Unlike in the past, China is now the most important driver of global credit flows.

Meanwhile, the global economy was rocked by rising oil prices. Brent rose from $55/bbl on October 5, 2017 to $85/bbl on October 4, 2018. Government bond yields also increased, with the 10-year U.S. Treasury yield rising from 2.05% on September 7, 2017 to 3.23% on October 5, 2018 (Chart 2).

CHART 2
Rising Oil Prices And Bond Yields Contributed To Slower Global Growth Last Year



* SOURCE: J.P. MORGAN CHASE & CO.

In an ironic twist, Jay Powell's ill-timed comment that rates were "a long way" from neutral marked the peak in bond yields. Unfortunately, the subsequent decline in yields was accompanied by a vicious stock market correction and a widening in credit spreads. This led to an overall tightening in financial conditions, which further hurt growth.

The critical point is that all of these negative forces are behind us: Financial conditions have eased significantly over the past two months; oil prices have rebounded, but are still well below their 2018 highs; ... Chinese growth is likely to bottom by the middle of this year. This means that global growth should start to improve over the coming months.

The United States: Better News Ahead

The latest U.S. economic data has been weak, with this morning's disappointing ISM manufacturing print being the latest example. The New York Fed's GDP Nowcast is pointing to annualized growth of 0.9% in the first quarter. ...

We suspect that much of the weakness in December retail sales and PCE was linked to the government shutdown. ...

Fundamentally, U.S. consumers are in good shape. As a share of disposable income, household debt is over 30 percentage points lower than it was in 2007. The savings rate stands at an elevated level, which gives households the wherewithal to increase spending. Job openings hit another record high, while wage growth continues to trend upwards.

The housing market should improve. Rising mortgage rates weighed on housing last year. However, rates have been declining for several months now, which augurs well for home sales and construction over the next six months.

While capex intention surveys have come off their highs, they still point to reasonably solid expansion plans. Rising labor costs and high levels of capacity utilization will induce firms to invest in more capital equipment, which should support business spending.

Government expenditures should also recover. By most estimates, the shutdown shaved one percentage point from Q1 growth. This is likely to be completely reversed in the second quarter. ...

Investment Conclusions

Global growth is still slowing. Having rallied since the start of the year, global stocks will likely enter a “dead zone” for the next six-to-eight weeks as investors nervously await the proverbial green shoots to sprout. We think they will appear in the second quarter, setting the scene for a reacceleration in global growth in the second half of the year, and an accompanying rally in global risk assets. ...

Red Flags

Red Flags that we have previously written about include OEFs with a Load Fee, Diworsification, Non-Traded REITs, Annuities, Variable Life Insurance, Commission based accounts, Attempting to time the market, and "Alternative" returns. Our best advice concerning all IPOs, "only avoid those that you can get in". From Wednesday's WSJ:

Hot IPOs Present Pitfalls for Investors

By Alexander Osipovich

Blank-check companies—initial public offerings for special-purpose companies, or SPACs, that raise cash for acquisition—are enjoying their highest popularity in more than a decade, raising more than $10 billion in new listings last year.

Such firms don’t have assets or any operating histories. They are largely bets on their executives, who seek to do a deal within a specified time, typically two years.

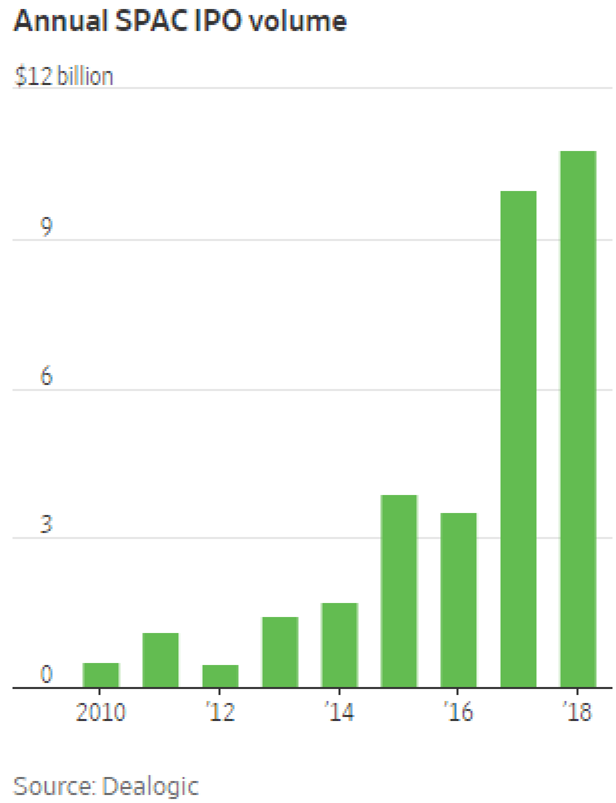
But investors should still be cautious about the structure, according to a review of the companies’ performance by The Wall Street Journal.

Of the blank-check companies that went public in 2015 and 2016, more than half are now trading below their IPO price, the Journal’s analysis shows.

It is an industry convention for SPACs to go public at $10, and in most cases their shares convert into shares of the target company on a 1-to-1 basis. So a share price above or below $10 can indicate whether or not the SPAC executed a successful deal.

Thirty-three SPACs held IPOs in 2015 and 2016. Of these, 27 did deals and transformed into oil drillers, trucking companies or other real-world businesses. Twenty now trade below $10, based on Tuesday's closing prices and accounting for any unusual stock-conversion factors, in which the SPAC shares didn't just convert directly into the shares of the target companies.

An additional seven did deals and are now trading above $10. The remaining six either haven't closed a deal yet, or dissolved without doing a deal and returned money to shareholders. Those that dissolved were delisted by their stock exchange. ...



In the 1980s, blank-check companies were often associated with penny-stock frauds. Laws and regulations implemented in the next decade helped clean up the sector, setting the stage for a surge of SPAC listings in the frothy years before the 2008 financial crisis.

Since 2010, they have enjoyed another resurgence, as well as increased acceptance on Wall Street. The volume of blank-check IPOs increased more than 650% in the five years through 2018, which was the biggest year for SPAC issuance since 2007, according to Dealogic.

Goldman Sachs Group underwrote its first SPAC IPO in 2016. The New York Stock Exchange welcomed its first blank-check company to the Big Board the next year, after loosening its listing rules for SPACs. Nasdaq has listed them since 2008. ...

Follow-ups

"Why Long-Short Funds Didn't Deliver", a 1 minute video on Jan. 31 from Morningstar:
https://www.morningstar.com/videos/909399/why-longshort-funds-didnt-deliver.html

From Forbes Real Estate Investor's March Issue:

A REIT DEFENSE FOR THE LATE CYCLE

Tom Bohjalian, CFA Head of U.S. Real Estate and Senior Portfolio Manager, Cohen & Steers

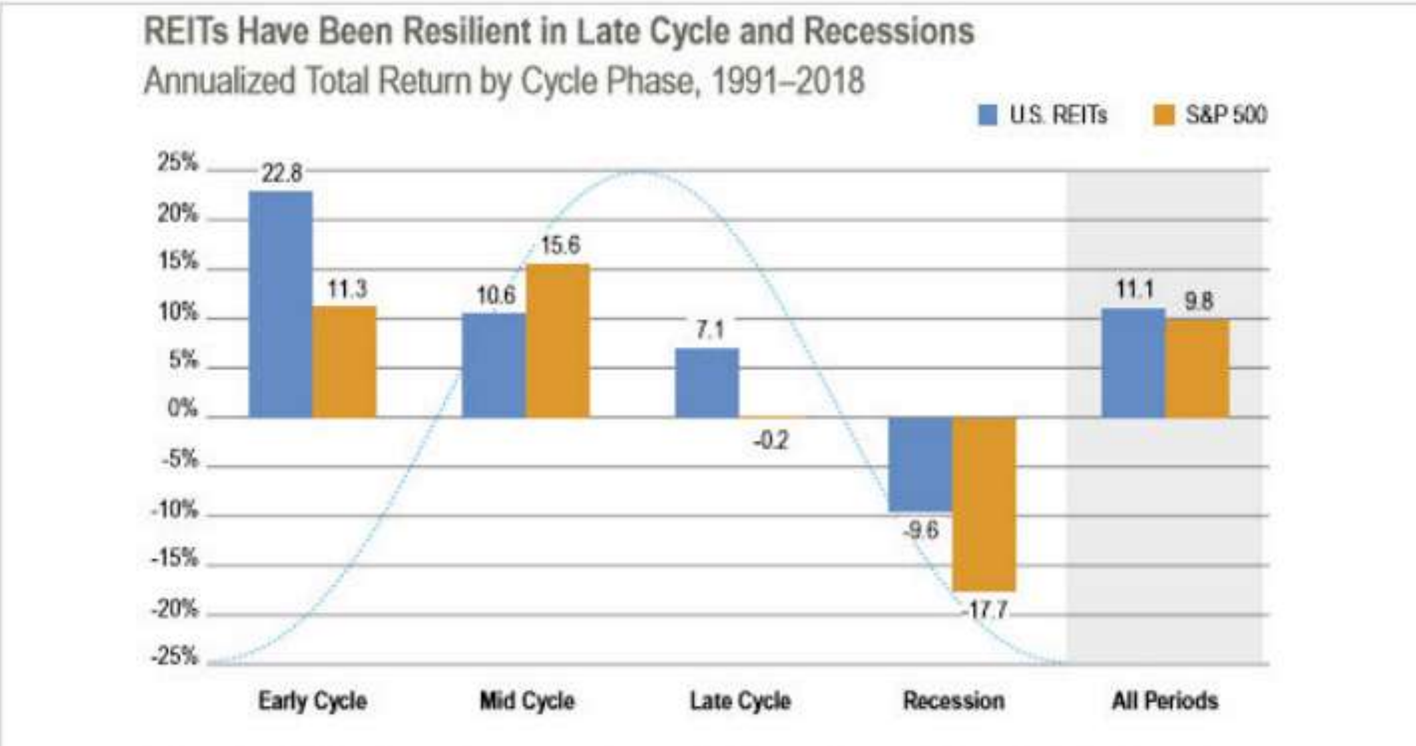
Real estate investment trusts (REITs) have spent the last several years largely out of favor, with a strong economy benefiting property fundamentals but not so much their share prices. That began to change toward the end of 2018 as the prospect of slowing global growth and tighter liquidity battered financial markets around the world.

In the fourth quarter, U.S. REITs defended much better than broad equities, with a drawdown of –6.7% versus –13.5% for the S&P 500. Real estate securities in Europe and Asia were similarly resilient, and REITs continued to widely outperform in January's relief rally as money flowed into the space.

While REITs have seen other periods of relative strength in recent years, we believe this is just the beginning of a broader shift in market leadership as the U.S. economy transitions from mid- to late cycle.

CONSIDER:

1. REITs have historically outperformed broad equities in late-cycle periods (chart below)—yet the clear majority of generalist fund managers continue to be structurally underweight real estate, creating the potential for a massive rotation of capital.



At December 31, 2018. Source: The Conference Board, National Bureau of Economic Research (NBER), Thomson Reuters, Cohen & Steers.

Data quoted represents past performance, which is no guarantee of future results. Average of annualized monthly returns grouped by phase. Expansion subdivisions determined by Cohen & Steers based on major trends in the Conference Board Coincident Index (CBCI): Early cycle—CBCI accelerating (104 of 336 months: 3/91–12/94, 11/01–12/04, 6/09–1/11); Mid cycle—CBCI stable (180 of 336 months: 1/95–4/00, 1/05–9/06, 2/11–12/18); Late cycle—CBCI decelerating (24 of 336 months: 5/00–2/01, 10/06–11/07). Recessions as reported by NBER (28 of 336 months: 1/91–2/91, 3/01–10/01, 12/07–5/09). Analysis focuses on post-1991 period—considered the "modern REIT era" due to evolution of the REIT structure, breadth and size of the market and overall liquidity—which we believe is representative of the current U.S. REIT investment universe and characteristics. See page 7 for index associations, definitions and additional disclosures.

2. REIT property fundamentals remain healthy and balance sheets are the strongest they've ever been, in our view—yet REIT earnings multiples have contracted over the past six years under the weight of rising interest rates, whereas equity multiples have expanded.

3. Significant, sustained investment demand for real estate in the private market has created a bottleneck of capital, resulting in a $300 billion mountain of uninvested capital in private real estate funds looking to buy the types of assets REITs already own, providing potential support to valuations.

As investors look to protect their portfolios from what may be a more challenging and volatile environment, we believe a 10%–15% allocation to REITs can be part of the solution.

WHY REITS IN LATE CYCLE

Since the start of the modern REIT era in 1991,U.S.REITs have outperformed the S&P 500 by more than 7% on average in late-cycle periods, and by even wider margins in recessions and early recoveries. While REITs are not immune to changes in the business cycle, we believe there are several reasons why they may outperform in late-cycle environments.

First, REITs tend to have predictable, lease-based revenues. In tough times, you can always put off upgrading your smartphone or buying a new car. But if you're an office tenant with a ten-year lease, you're contractually obligated to pay your landlord regardless of economic conditions. As a result, REITs have historically generated more consistent earnings growth than most sectors in the stock market (exhibit 1).

At December 31, 2018. Source: UBS, Bloomberg, NBER, Cohen & Steers.

Data quoted represents past performance, which is no guarantee of future results. FFO: funds from operations, the REIT industry's key earnings metric, calculated as GAAP net income, less gains from asset sales, plus real estate depreciation and amortization. EPS: earnings per share. See page 7 for index associations, definitions and additional disclosures.

It's important to note, however, that this can vary significantly depending on the property type. For example, hotels are highly cyclical due to their one-day leases and reliance on business and leisure spending. By contrast, cell tower leases are typically structured as 25- to 30-year leases, with ten-year non-cancellable terms and five-year rolling opt-outs, providing stable, long-term cash flows. Furthermore, demand for tower space has little to do with the business cycle, driven instead by the ongoing expansion of wireless networks to satisfy customers' increasing data usage.

Second, REITs have a history of paying attractive dividends, giving investors a potential head start on returns in a low-growth environment. At the end of 2018, real estate was tied with energy as the top-yielding sector in the S&P 500. This is typical for REITs, resulting from cashflow-oriented business models focused on operating, acquiring and developing properties that generate recurring income streams. And, whereas distributions are optional for most other companies, the IRS requires U.S. REITs to pay out at least 90% of their taxable income to shareholders.

Lastly, slower growth may ease the pressure from interest rates. Though U.S. inflation has been rising, we believe a peak in economic growth and a more challenging global economic backdrop means that bond yields are unlikely to move much higher from current levels. Additionally, the Federal Reserve has already struck a more dovish tone and could soon put a hold on further rate hikes.

A FAVORABLE BACKDROP FOR REAL ESTATE

It's not just healthy fundamentals, defensive characteristics alone are not enough to protect investors. Based on our outlook for more moderate but still healthy growth in 2019, we have adjusted our estimates for property values and cash flows, taking a more conservative view of capitalization rates (a valuation technique to derive property value).

Even factoring that in, we believe REITs continue to offer the potential for attractive absolute and relative returns amid a generally favorable backdrop for U.S. commercial real estate. We expect supply and demand to remain largely in balance and for landlords to maintain some level of pricing power, translating into healthy earnings and dividend growth in the mid-single digits.

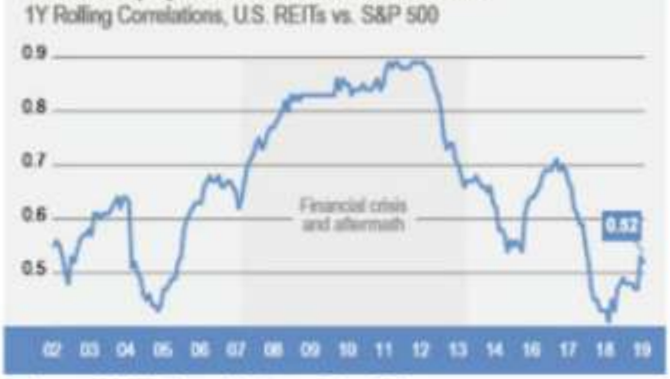
As always, it is important to look not just at REIT fundamentals overall, but at individual sectors and companies, as supply and demand conditions can vary significantly. Below is our investment thesis.

Strong balance sheets: Credit spreads may widen modestly, but we believe this should have a minimal impact on the REIT market. REIT balance sheets are stronger than they have ever been, in our view, as most companies have spent the past decade reducing leverage and extending maturity durations.

Low correlations: REITs have historically been effective diversifiers, illustrated by their low correlations with other asset classes. After spiking in the wake of the financial crisis, correlations with equities have since returned to previous long-term levels, at 0.52 as of January 31 (exhibit 2). We believe their diversification potential may be especially important heading into what could be a period of greater uncertainty.

Attractive value relative to stocks: Despite strong fundamentals, REIT earnings multiples have contracted over the past six years, whereas multiples for the broad equity market have expanded, even accounting for the decline over the past year (exhibit 3). Considering that REITs have historically traded at higher multiples than

Exhibit 2: Equity Correlations at Pre-Crisis Levels
1Y Rolling Correlations, U.S. REITs vs. S&P 500



At January 31, 2019. Source: Morningstar, Cohen & Steers.

Data quoted represents past performance, which is no guarantee of future results. Correlation is a statistical measure of how two securities move in relation to each other. Volatility is a measure for variation of price of a financial instrument over time. See page 7 for index associations, definitions and additional disclosures.

Exhibit 3: REITs Trading at Low Multiples vs. Equities

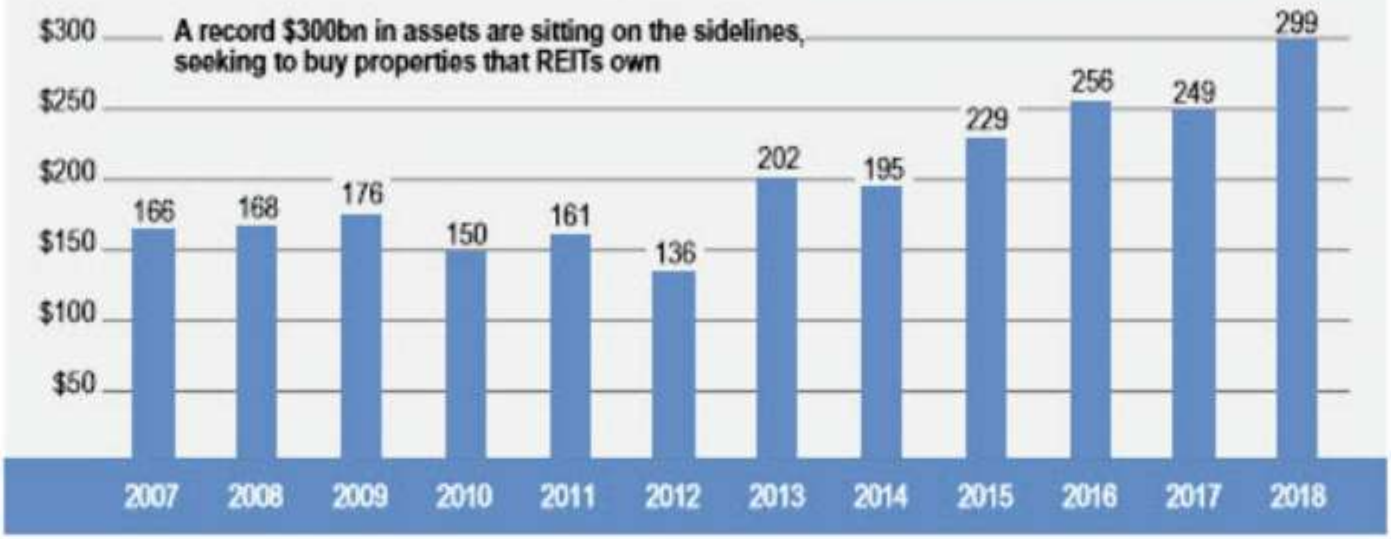
At January 31, 2019. Source: Morningstar, Cohen & Steers estimates based on proprietary metrics.

Data quoted represents past performance, which is no guarantee of future results. REITs: P/FFO: ratio of share price to funds from operations; FFO is the REIT industry's key earnings metric, calculated as GAAP net income, less gains from asset sales, plus real estate depreciation and amortization. P/E: ratio of share price to earnings. See page 7 for index associations, definitions and additional disclosures.

equities on average, we believe the current discount indicates potential value.

Support from private investment demand: Amid tremendous demand for real estate from private investors, real estate asset managers have been raising capital faster than they can put it to work. This backlog has led to a record $300 billion of dry powder in private real estate funds looking to buy the types of assets REITs own (exhibit 4). We believe this could serve as a potential floor of support for REIT valuations, flowing through to the listed REIT market in several ways: Putting upward pressure on commercial real estate prices; purchasing assets from REITs at premium prices; and acquiring REITs themselves at premium valuations.

Exhibit 4: Dry Powder Targeting Real Estate
Uninvested Capital in Private Real Estate Funds, $ billions



At November 30, 2018. Source: Preqin, Cohen & Steers.

Data quoted represents past performance, which is no guarantee of future results. Dry powder measures total capital commitments to private real estate funds minus capital that has been called for investment by the general partner.

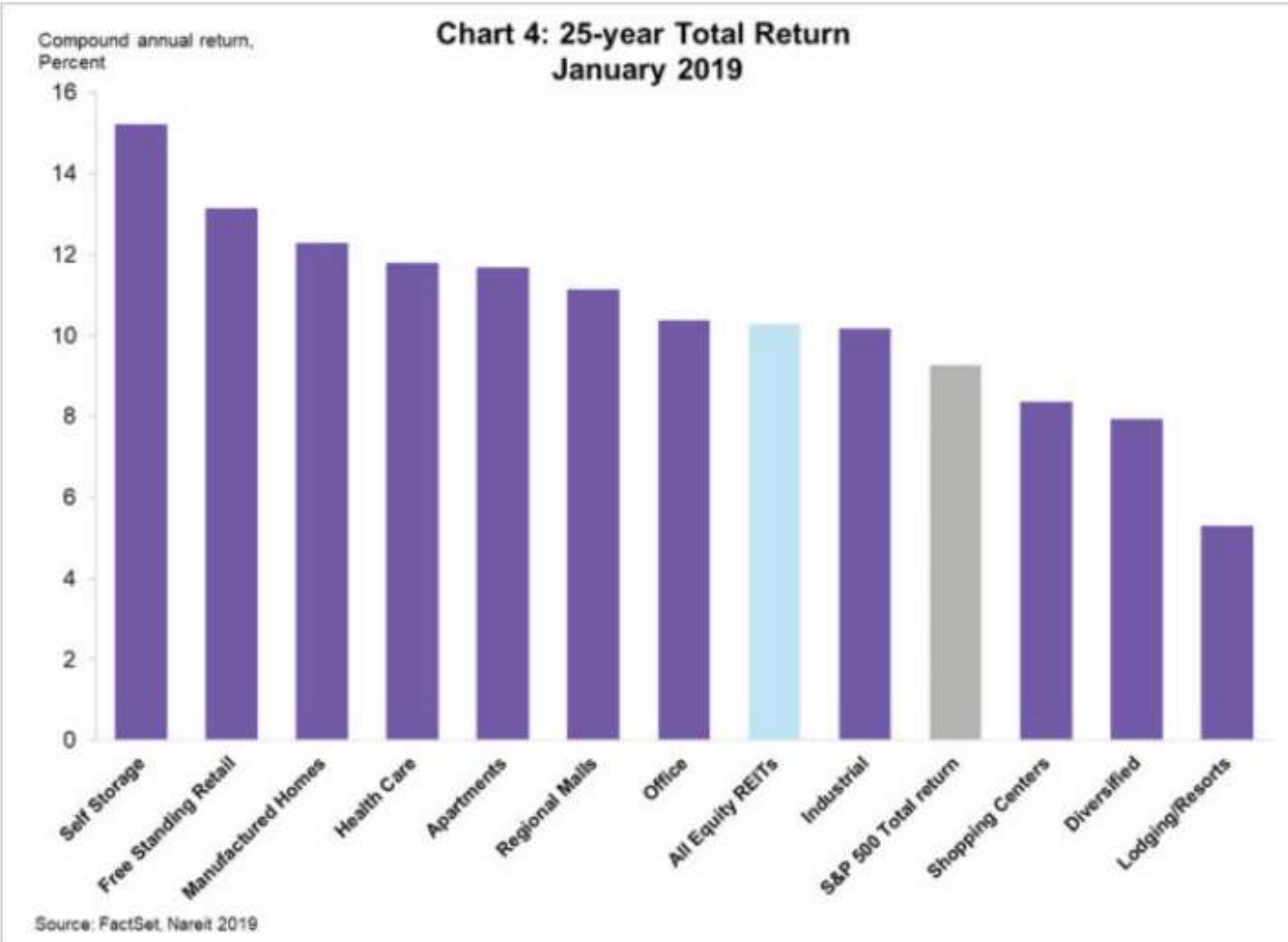
Takeaways

REITs' strong relative performance since October highlights the potential benefits of having defensive, lease-based revenues and high dividend yields in an environment of heightened uncertainty.

Periods of volatility are often an opportunity for investors to reassess their asset mix and ensure their portfolio is well diversified.

We believe REITs provide a compelling way to diversify in today's market, offering attractive relative valuations, low correlations with equities and the backing of robust demand in the private market.

As previously shared, we do not recommend Trend-Following as a way to reduce risk. This is especially the case when taking a Factor based approach to portfolio construction. It is also worth noting that we continue to recommend a healthy dose of "Developed Int'l Stocks", and "Real Estate", which, as shown below, has outperformed the S&P 500 over the last 25 years, for diversification. We have been adamant about avoiding "U.S. Gov't Bonds", "Commodities", and "Cash".



Trend-Following: A Decade of Underperformance

By Jack Vogel, PhD February 20th, 2019

Everyone in finance remembers 2008–the Global Financial Crisis.

Yes, I know, the final downward movement in the stock market was in early 2009. However, many remember 2008 as the year of the crisis.

So now we are 10 years removed from the crisis.

Why do I mention this?

After the crisis, some began to question the logic/benefits of B&H investing. After all, a ~50% cut in the value of stocks can be painful. Yes, diversification matters; however, some of us are humans and tend to focus on individual pieces of the portfolio.

While there are many ways to deal with potential drawdowns (including asset class diversification), a popular and simple approach is to use trend-following within each asset class.

So below, I wanted to generate the returns to both B&H and Trend-Following for a variety of asset classes over the past decade.

Bottom line: Trend-following rules have caused a decade of absolute underperformance.

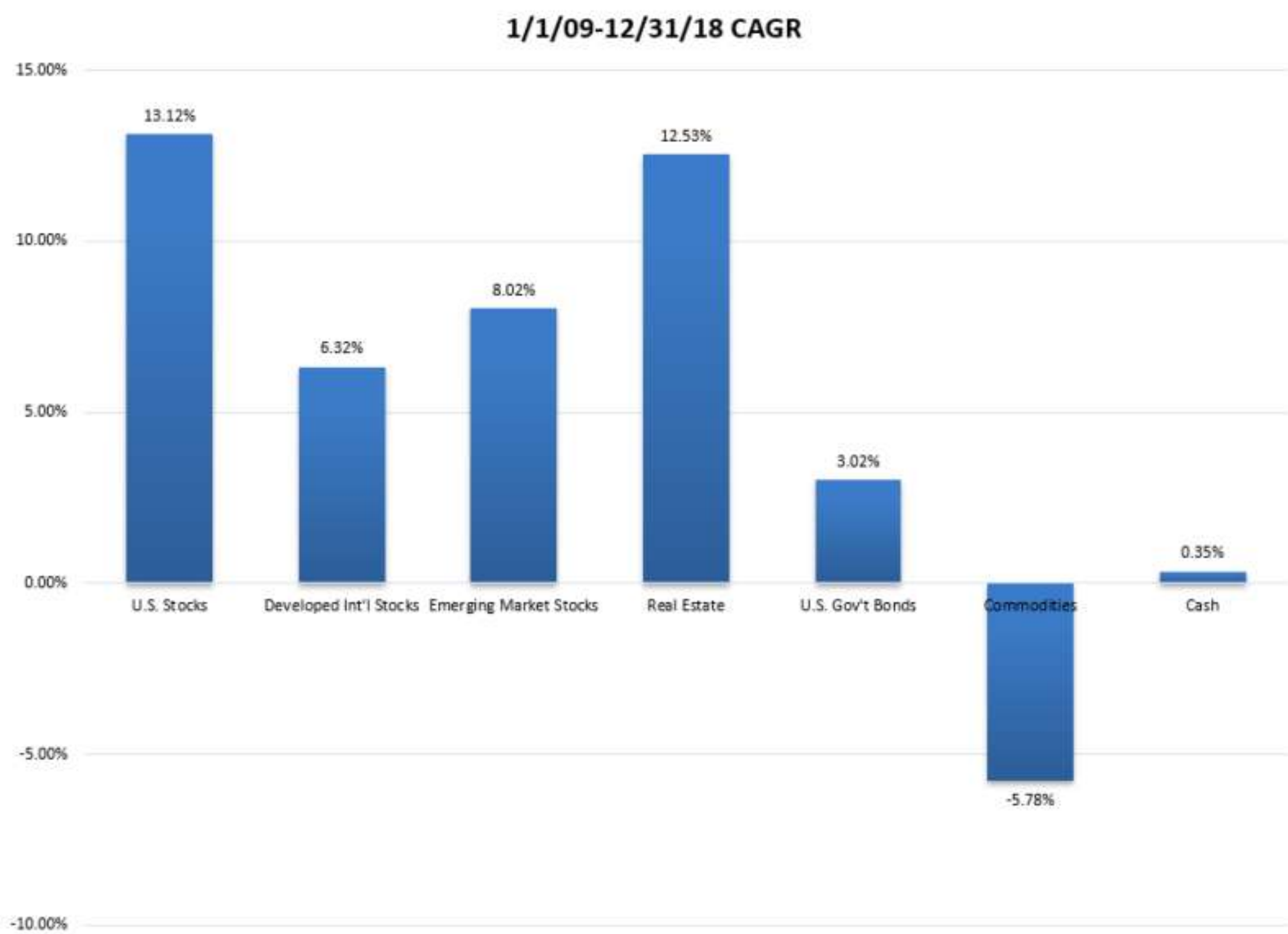
The Sample and Trend-Following Rules

To examine the results, I examined six common asset classes:

1. U.S. Stocks — SP500
2. Developed Int'l Stocks — EAFE
3. Emerging Market Stocks — EEM
4. Real Estate — REITs
5. U.S. Gov't Bonds — U.S. Treasuries, 7-10 year
6. Commodities — GSCI

In addition, I plot the returns to Cash within the U.S., by the total return to 1-3 month Treasury Bills. All returns are total returns and include dividends, when applicable.

Below are the Compound Annual Growth Rates (CAGRs) to the B&H assets, from 1/1/2009 – 12/31/2018, gross of any fees or transaction costs:



As you can see, U.S. stocks were the place to invest over the past 10 years. U.S. Real Estate was also a good bet, while Commodities were negative and International stocks (Developed and Emerging) lagged the U.S. market.

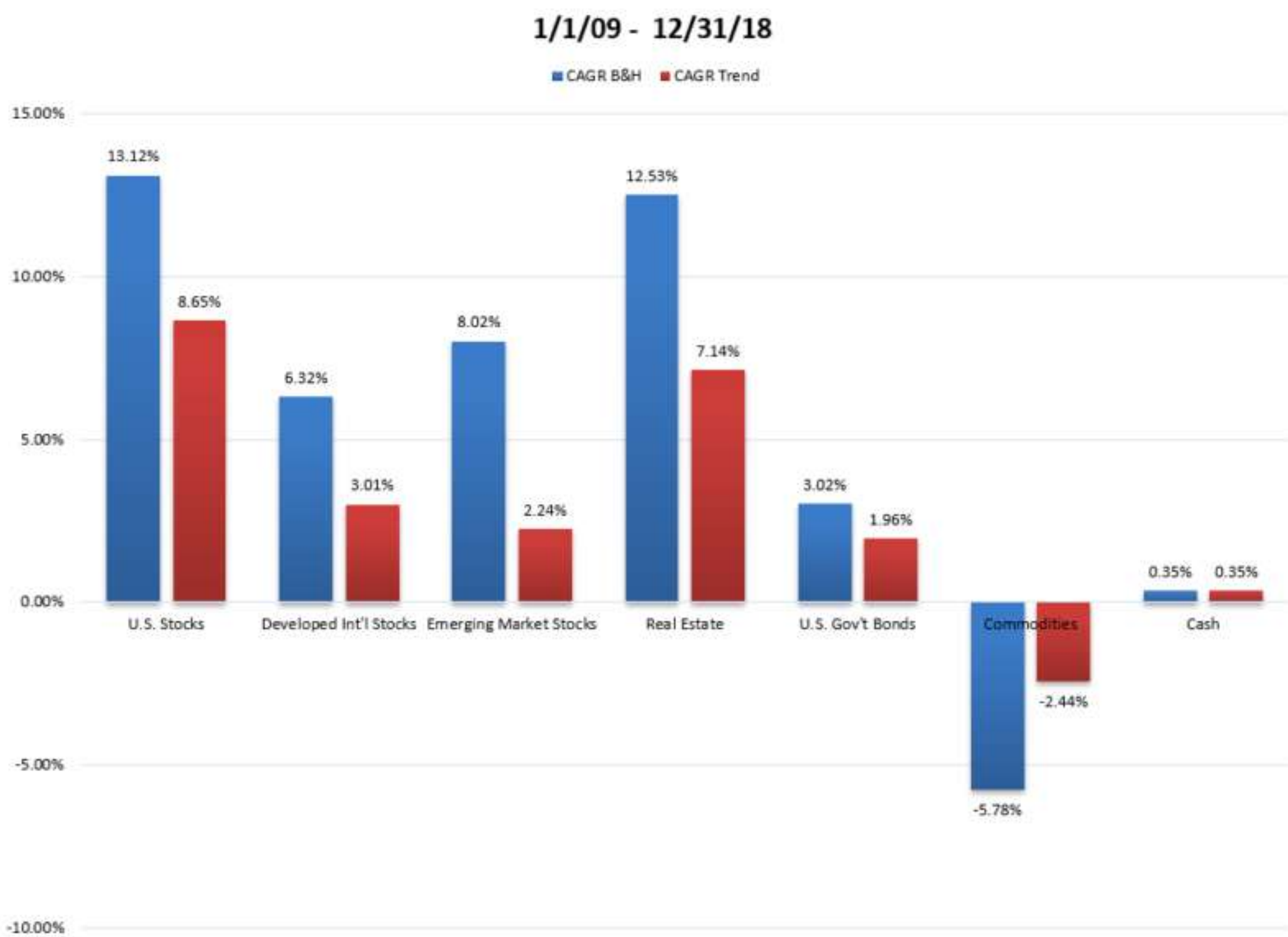
So how did Trend-Following do over the same time period?

Below I show the CAGRs to each asset class while applying two simple trend rules, both assessed monthly:

1. Moving Average Rule–Current Total-Return Price compared to the Average of the Past 12-Months Total-Return Prices. If current > average, invest in the risk asset. If not, go to cash.
2. Time-Series Momentum Rule–Compare the total return (TR) of each risk asset to the total return to cash over the past 12 months. If the TR for the risk asset > TR for cash, invest in the risk asset. If not, go to cash.

These two simple rules are similar, but not exactly the same. We give each a 50% weight, so one can either be 0%, 50%, or 100% invested in the risk asset. We discuss more on these rules here.

Below are the returns from 1/1/09-12/31/18, gross of any transaction costs, taxes, or fees. The B&H portfolio is in blue, and the trend-followed portfolio is in red.



With the lone exception of Commodities, B&H beat trend-following in every asset class. Also, remember that these are CAGRs (compound annual growth rates), so the difference would get compounded. Examining U.S. stocks, we see the B&H returned 13.12% whereas Trend returned 8.65%, for a difference of 4.47%.

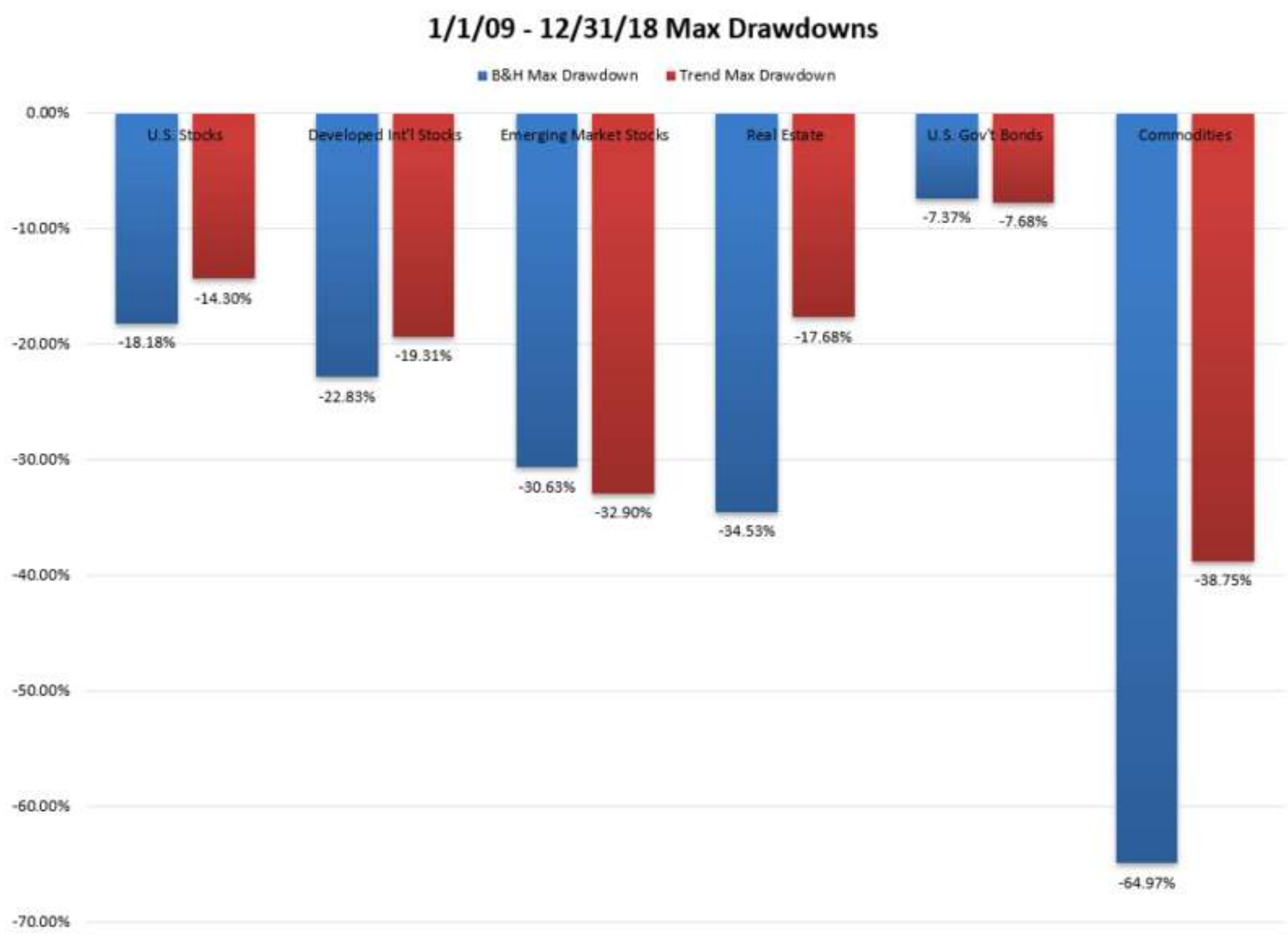
To see what that is in dollar terms, we would need to compound over 10 years:

- $100 invested into B&H U.S. Stocks would have turned into $100*(1 + 13.12%)^10 = $343.08.
- Alternatively, $100 invested in U.S. Stocks with Trend would have turned into $100*(1 + 8.65%)^10 = $229.24.

For anyone using trend, unfortunately, they already know this math.

However, an objective of trend-following is to help avoid drawdowns and minimize these within each asset class. So how did trend-following do over the past decade?

Below I show the maximum drawdowns on each asset class, again gross of any transaction costs, taxes, or fees. Once again, B&H is in blue and Trend is in red.



As you can see, the trend rules did little on drawdowns, save Commodities and Real Estate. However, over this time period, we know that there have been many "head-fakes" in the equity markets–U.S. Credit downgrade in 2011, a global slowdown fear in late 2015 and early 2016, and the more recent Q4 2018 decline. Each time markets are about to tank, the markets bounced back up, leaving trend-followers on the sideline missing out on returns. This definitely is the largest downside to trend-following, you will inevitably miss out on some returns, at some point in time.

It should also be pointed out that the returns shown above would be different if the trend signals were changed. Other methods include (1) different look-back periods, (2) assessing daily/weekly as opposed to monthly, and (3) using multiple signals. [1]

However, most rules or combinations would generate similar returns–underperformance over the past decade.

So one may question–after a decade of losing, should one abandon trend-following?

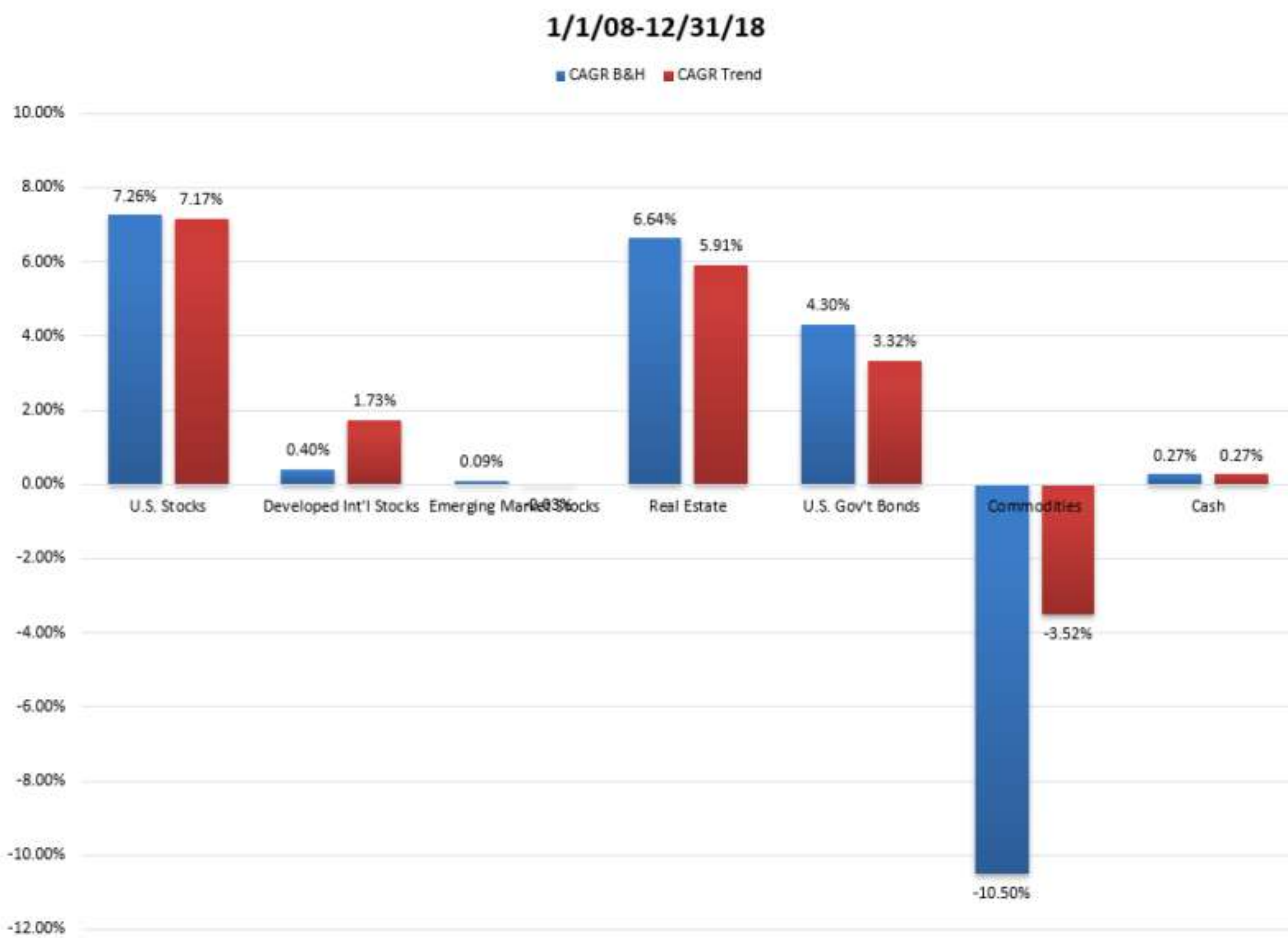
The answer, as is the case with most investing questions, is "it depends".

Why?

Well, let's simply make one change to the study, and add one more year to our look-back period. This would involve us starting on 1/1/2008.

How did the portfolios perform over this time period?

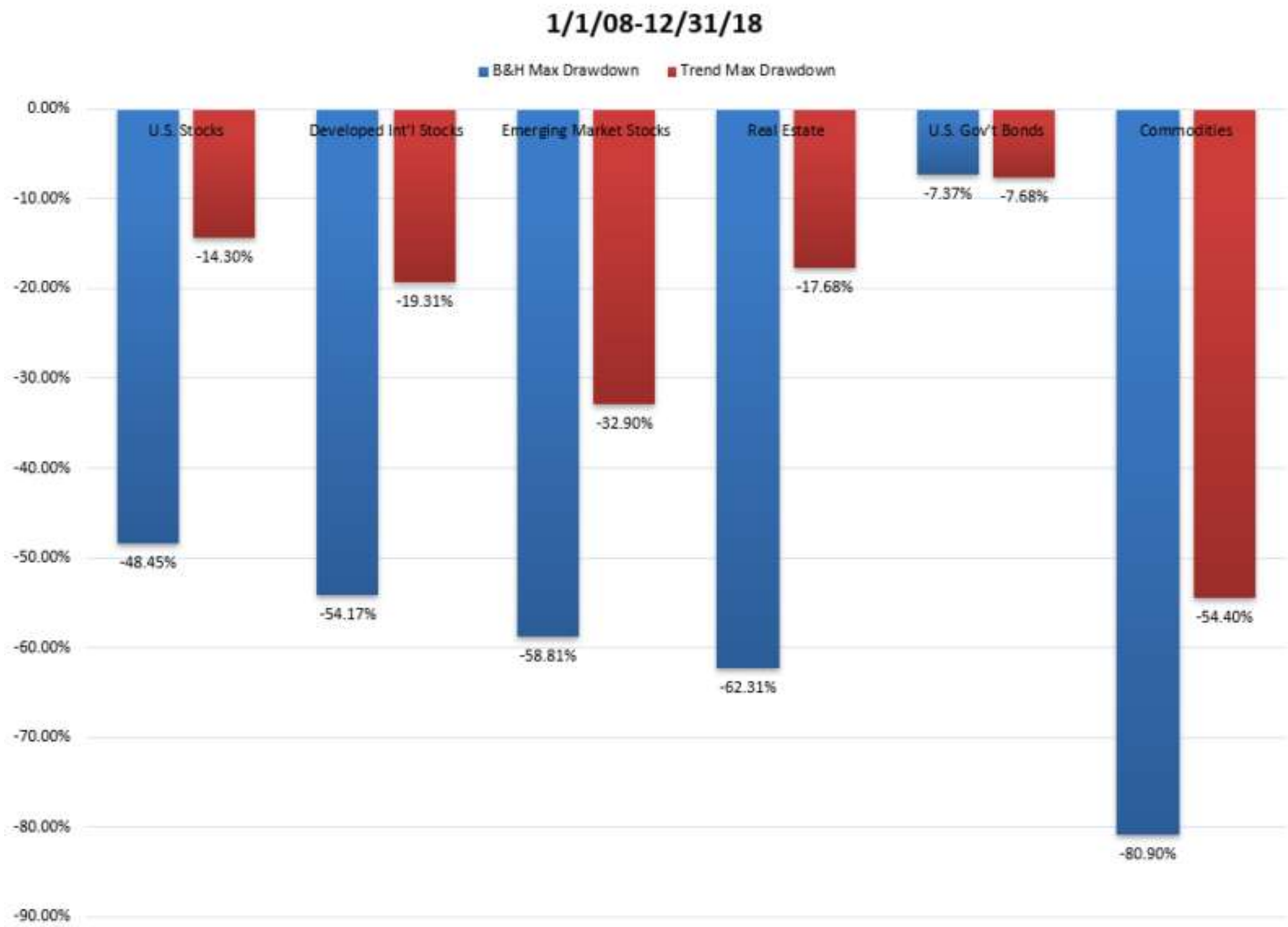
Below are the returns from 1/1/08-12/31/18, gross of any transaction costs, taxes, or fees. The B&H portfolio is in blue, and the trend-followed portfolio is in red.



As we see, adding in one year, 2008, generates results showing B&H and Trend have similar CAGRs. Again, this is before any fees or transaction costs, but it is worth noting the performance is similar.

And as for drawdowns?

The maximum drawdowns on each asset class are shown below, again gross of any transaction costs, taxes, or fees. Once again, B&H is in blue and Trend is in red.



As one can see, when we include one additional year, 2008, we see how trend-following affected the drawdowns on each asset class.

So to the extent that large drawdowns matter to the end investor (i.e. those with utility functions placing a high value (utility) on not losing $$), and cannot be fully diversified away, trend-following might still have a place in the portfolio.

What's the Takeaway on Trend Following?

The sobering fact is as follows–trend-following caused a decade of underperformance.

Including 2008 can make trend-followers feel better, but the past decade highlights the downside to trend-following–you will inevitably miss out on returns at some times.

As I highlight here, trend-following on U.S. stocks underperformed by around 3% (annualized!) from 1/1/1975-12/31/1999, a 26-year period! So this is definitely not a "new" event.

Overall, as we outline here, an economic rationale for trend-following to work in the future would be if investors' risk aversion is dynamic, and investors become more risk-averse as prices get lower and expected returns rise.

However, as is shown above, trend-following is definitely not for everyone.

About the Author: Jack Vogel, Ph.D., conducts research in empirical asset pricing and behavioral finance, and is a co-author of DIY FINANCIAL ADVISOR: A Simple Solution to Build and Protect Your Wealth. His dissertation investigates how behavioral biases affect the value anomaly. His academic background includes experience as an instructor and research assistant at Drexel University in both the Finance and Mathematics departments, as well as a Finance instructor at Villanova University. Dr. Vogel is currently a Managing Member of Alpha Architect, LLC, an SEC-Registered Investment Advisor, where he heads the research department and serves as the Chief Financial Officer. He has a PhD in Finance and a MS in Mathematics from Drexel University, and graduated summa cum laude with a BS in Mathematics and Education from The University of Scranton.