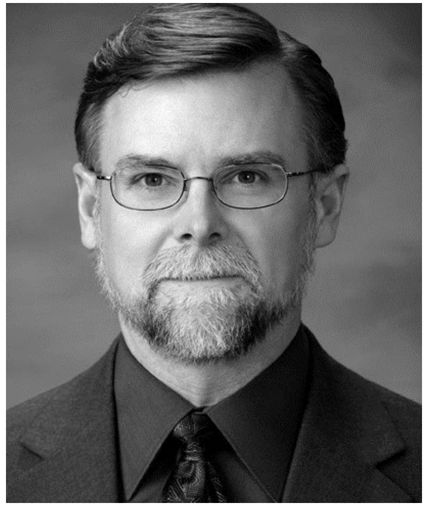
JULEX CAPITAL

S&P 500 has beaten TAA, what does this imply?

Rob Brown, PhD, CFA

Julex Capital Advisory Board Member, Website www.robbrownonline.com



40 Grove Street, Suite 140, Wellesley, MA 02482
Phone 781-489-5398
Email info@julexcapital.com
Web www.julexcapital.com

"There are two levers for moving men - interest and fear"

Napoleon Bonaparte

The S&P 500 has crushed TAA

Shouldn’t I therefore abandon TAA . . . and move to the S&P 500?

Quick history

JULEX CAPITAL

- The U.S. stock market bottomed out, mid-day on March 6, 2009
- Through mid-day June 2, 2021 . . . the S&P 500 has returned +701%
- Or an annualized 18.53% per year for 12.24 years
- TAA did not do anywhere near this number

History of bull markets . . . Here in the U.S.

JULEX CAPITAL

History of BULL markets for inflation-adjusted stocks

	Cumulative percentage gain, unannualized	Duration in years	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that were positive	Annualized return during BULL market
	49	2.1	Nov 1854	Dec 1856	17.1	72	21.0
	287	6.7	Oct 1857	Jul 1864	19.3	62	22.2
	177	11.0	Mar 1865	Mar 1876	10.6	67	9.7
	1057	29.2	Jun 1877	Sep 1906	10.9	59	8.7
	79	4.9	Nov 1907	Oct 1912	12.0	63	12.6
	50	2.1	Oct 1914	Nov 1916	9.4	76	21.7
	709	8.7	Dec 1920	Aug 1929	13.6	72	27.3
	382	4.7	May 1932	Feb 1937	38.1	68	39.2
	65	1.5	Mar 1938	Sep 1939	31.9	61	39.8
	168	4.1	Apr 1942	May 1946	12.0	78	27.3
	1145	20.7	Feb 1948	Nov 1968	12.3	66	12.9
	60	2.5	Jun 1970	Dec 1972	10.8	70	20.8
	312	12.9	Sep 1974	Aug 1987	15.6	55	11.6
	512	12.7	Nov 1987	Aug 2000	13.4	66	15.3
	81	5.1	Sep 2002	Oct 2007	9.9	70	12.3
	?	?	Feb 2009	?	?	?	?
Median BULL market	**176.7**	**5.1**			**12.3**	**67**	**20.8**
Mean BULL market	**342.2**	**8.6**			**15.8**	**67**	**20.2**

Author: Rob Brown, PhD, CFA at www.robbrownonline.com. Statistics based on data provided by Global Financial Data, Inc., San Juan Capistrano, CA 92675, at https://finaeon.globalfinancialdata.com and are current as of April 5, 2021

Results rely on month-end S&P 500 index total returns adjusted for the All Urban Consumers Not Seasonally Adjusted Consumer Price Index as provided by the U.S. Department of Labor

Indices are unmanaged and cannot be invested into directly. Unmanaged index returns do not reflect fees, expenses, or sales charges. Index performance is not indicative of the performance of any investment. Past performance is no guarantee of future results

Bull and bear markets are defined as moves of at least 26.92993% using month-end S&P 500 index total returns. This information in this presentation is for the purpose of information exchange. No representation or warranty is made to the reasonableness of the assumptions made. Investment advice offered through Integrated Wealth Concepts LLC (a Registered Investment Adviser), d/b/a Integrated Financial Partners, Inc.

History of bull markets . . . Here in the U.S.

JULEX CAPITAL

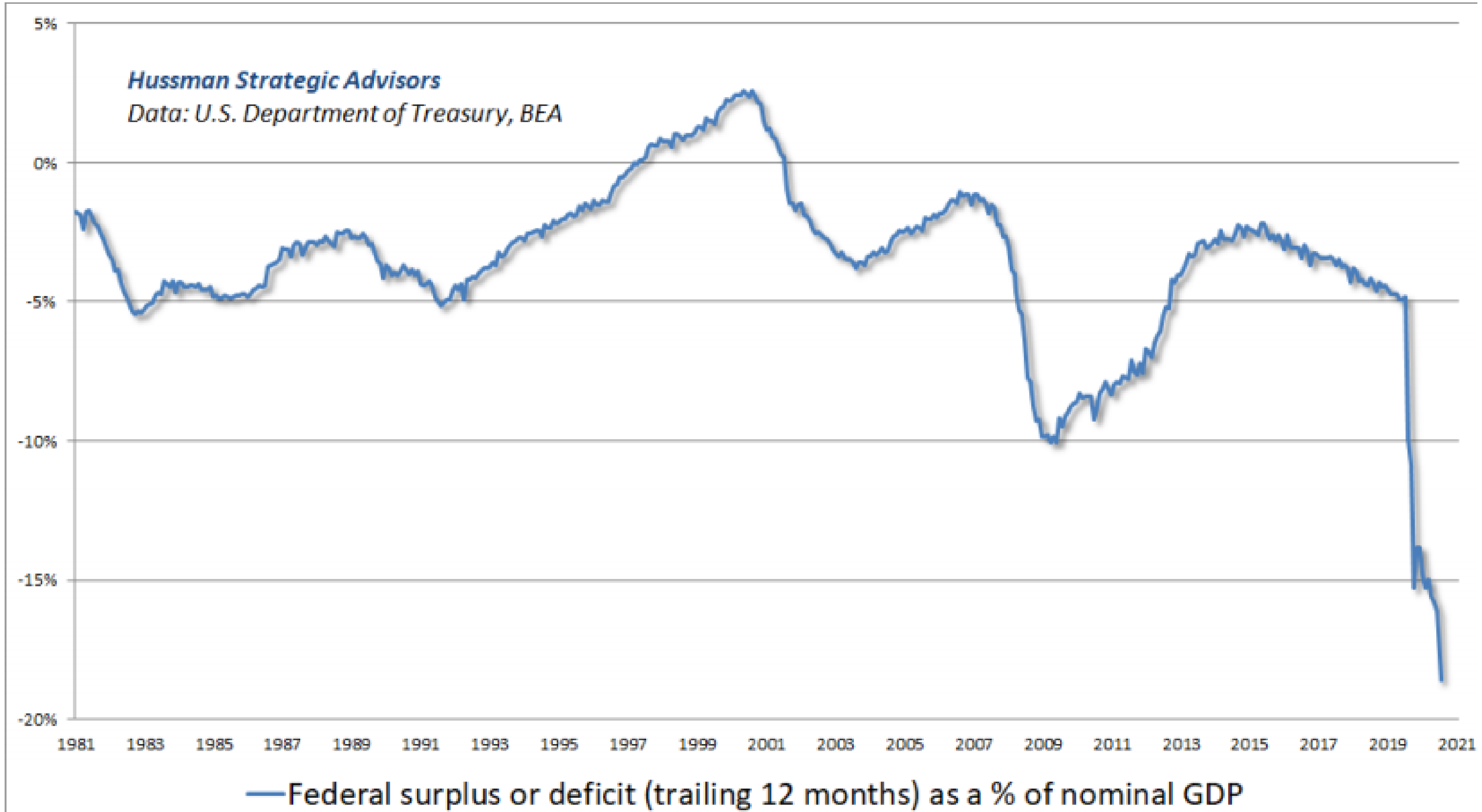
	Cumulative percentage gain, unannualized	Duration in years	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that w ere positive	Annualized return during BULL market
	1145	20.7	Feb 1948	Nov 1968	12.3	66	12.9
	60	2.5	Jun 1970	Dec 1972	10.8	70	20.8
	312	12.9	Sep 1974	Aug 1987	15.6	55	11.6
	512	12.7	Nov 1987	Aug 2000	13.4	66	15.3
	81	5.1	Sep 2002	Oct 2007	9.9	70	12.3
	?	?	Feb 2009	?	?	?	?
Median BULL market	**176.7**	**5.1**			**12.3**	**67**	**20.8**
Mean BULL market	**342.2**	**8.6**			**15.8**	**67**	**20.2**

The current bull market started March 6, 2009

- Compared to the past/prior 15 bull markets
- The current bull market has
- Lasted longer than 73%
- Delivered a greater cumulative return than 80%
- So . . . relative to history . . . it could last even longer and rise even further
- But . . . is that a bet worth taking?

Fiscal stimulus . . . largest since WWII

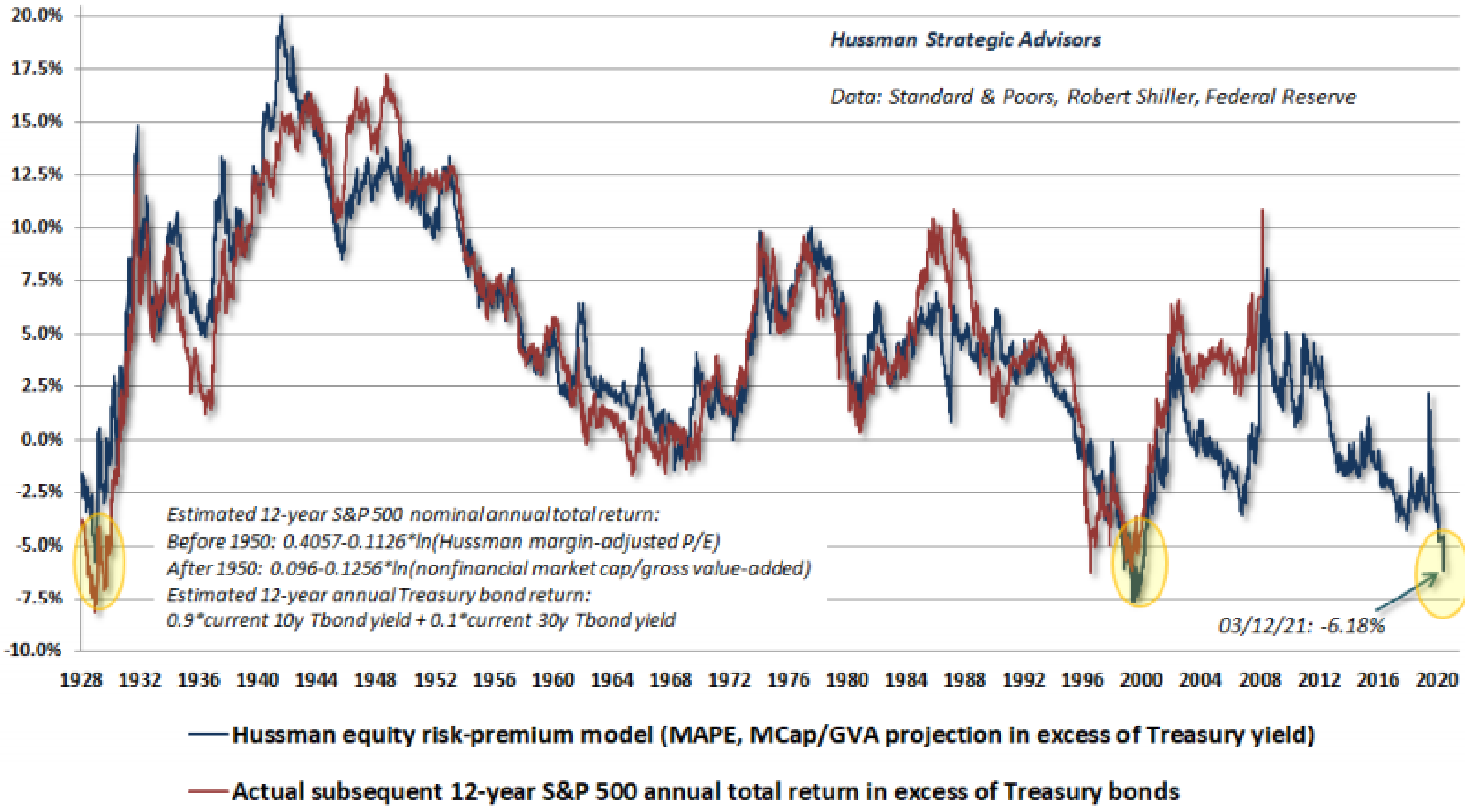
What's going on is simple. Over the past 12 months, the U.S. federal government has run the deepest fiscal deficit since World War II. Investors seem to be vastly underestimating the extent to which a likely economic rebound will *replace* rather than *augment* the effect of trillions of dollars in pandemic relief programs, amounting to close to 20% of GDP, which preserved corporate revenues while subsidizing labor costs.



Equity risk premium is smallest since 1929

Our estimate of the "equity risk premium" – the expected return of the S&P 500 relative to Treasury bonds – is also at depressed levels previously seen only at the 1929 and 2000 market peaks. Feel free to compare this measure with any of the garbage "equity risk premium" measures churned out by Wall Street (which are typically never tested against actual subsequent returns). Despite the depressed level of Treasury bond yields, I do expect the total return of the S&P 500 to lag those returns in the coming 10-12 years.

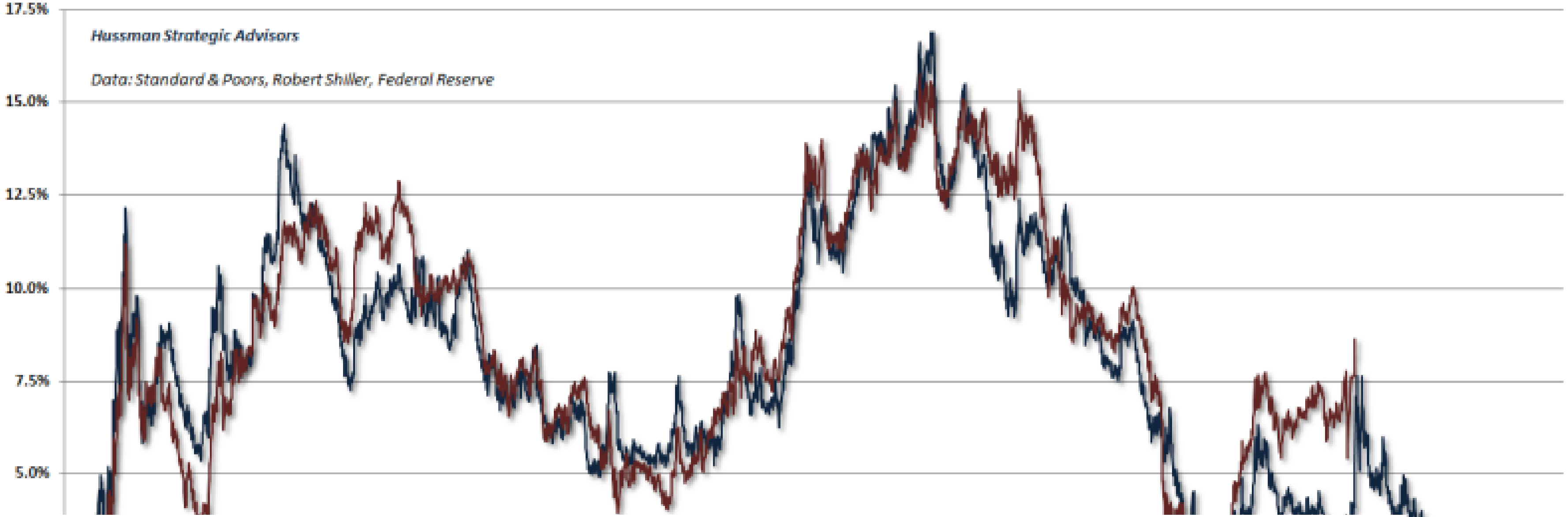
Equity risk premium is smallest since 1929



months ago. Our estimate of the "equity risk premium" – the expected return of the S&P 500 relative to Treasury bonds – is also at depressed levels previously seen only at the 1929 and 2000 market peaks. Feel free to compare this measure with any of the garbage "equity risk premium" measures churned out by Wall Street (which are typically never tested against actual subsequent returns). Despite the depressed level of Treasury bond yields, I do expect the total return of the S&P 500 to lag those returns in the coming 10-12 years.

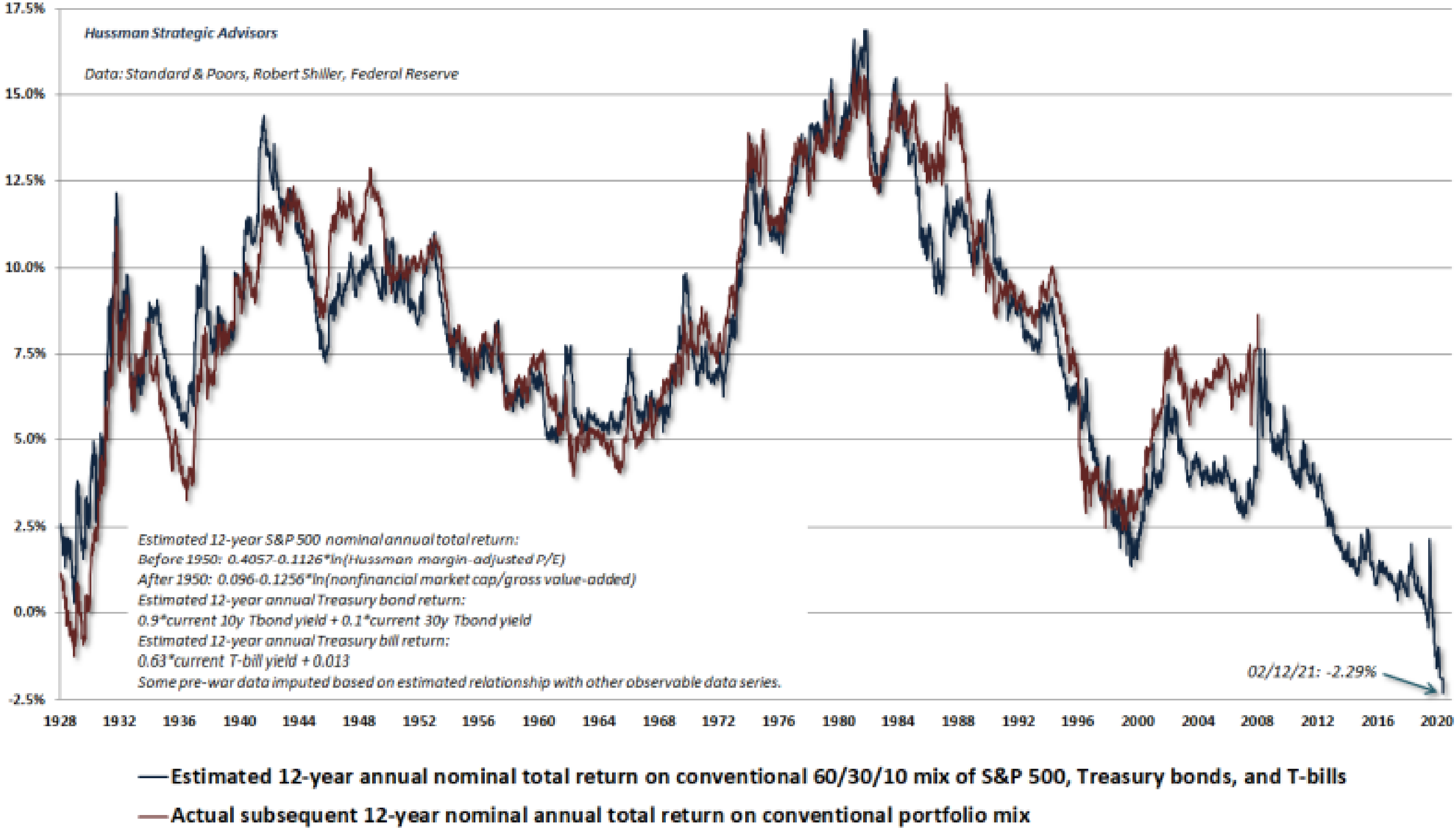
What you pay for a dollar of revenue

No better for a balance portfolio - 60/30/10



So yes, backward-looking returns on passive investments look glorious here. But those backward-looking returns have been achieved by driving valuations on stocks and bonds to historic extremes, and those extremes, in turn, imply that future returns are likely to be rather dismal. The collapse in our estimate of prospective returns for a conventional portfolio mix (60% S&P 500, 30% Treasury bonds, 10% T-bills) is the mirror image of the advance in recent years to hypervalued levels across these asset classes.

No better for a balance portfolio - 60/30/10



So yes, backward-looking returns on passive investments look glorious here. But those backward-looking returns have been achieved by driving valuations on stocks and bonds to historic extremes, and those extremes, in turn, imply that future returns are likely to be rather dismal. The collapse in our estimate of prospective returns for a conventional portfolio mix (60% S&P 500, 30% Treasury bonds, 10% T-bills) is the mirror image of the advance in recent years to hypervalued levels across these asset classes.

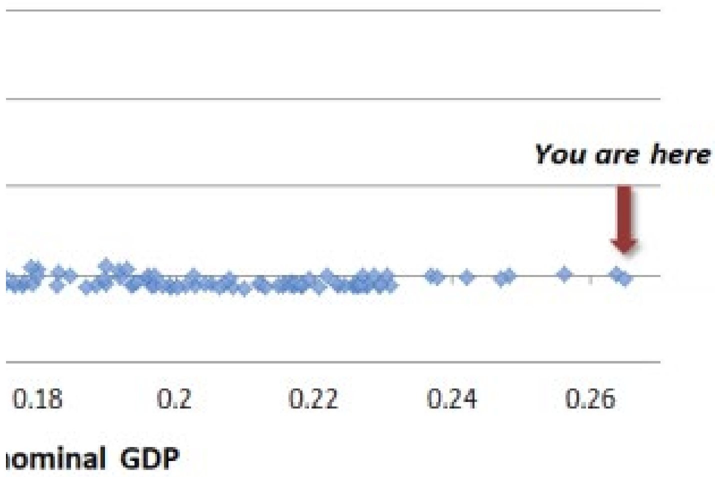
We’ve been here before, we know how it ends

> Making money in the stock market was now the easiest thing in the world. It was only necessary to buy ‘good’ stocks, regardless of price, and then to let nature take her upward course. The results of such a doctrine could not fail to be tragic.”
> – *Graham & Dodd, 1934*

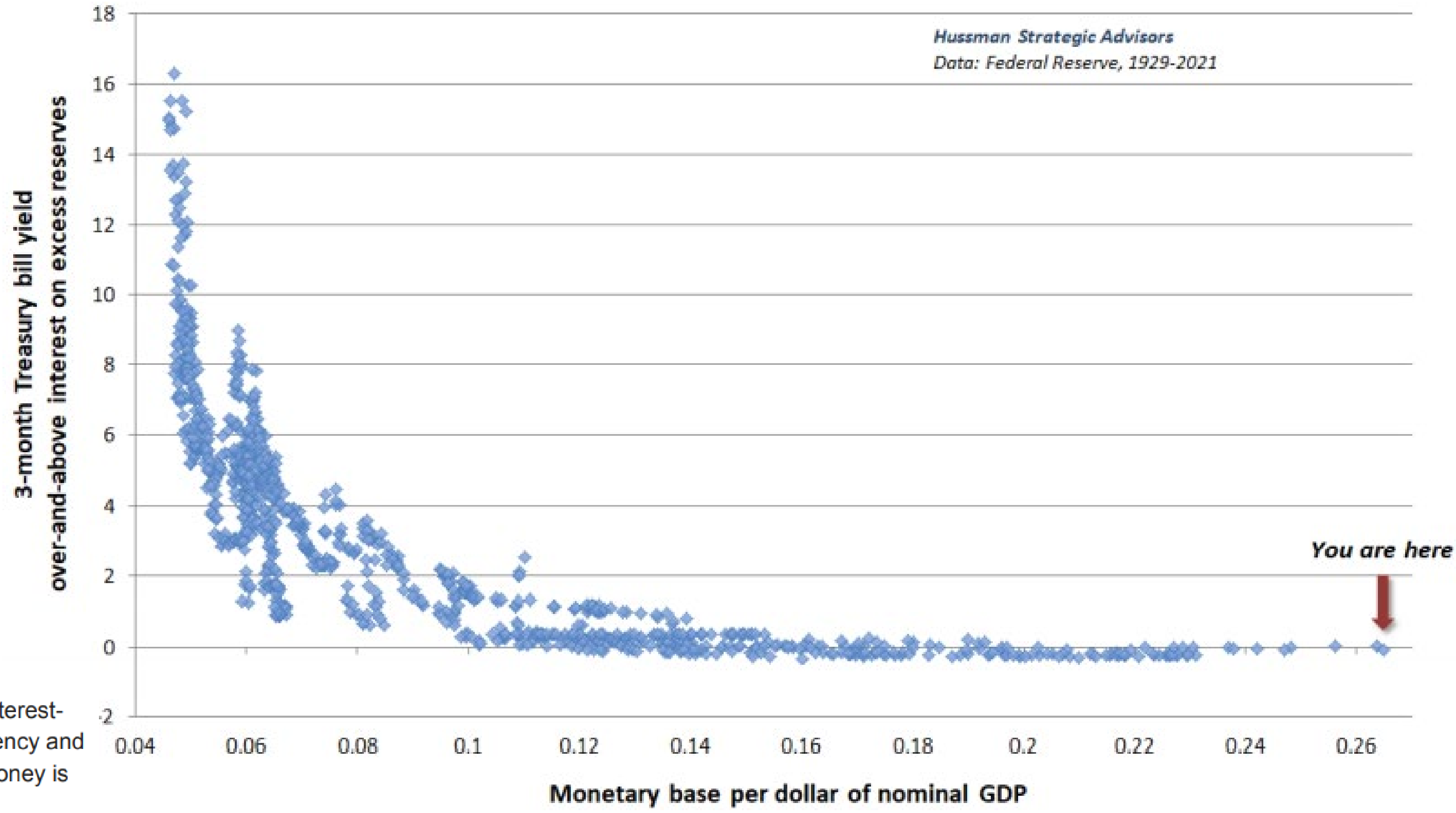
How does monetary stimulus work?

As a policy, quantitative easing is very straightforward: the Federal Reserve buys interest-bearing Treasury securities, and pays for them with zero interest base money (currency and bank reserves) that someone has to hold at every moment in time until that base money is retired.

That's it. That's the entire *mechanism* by which QE has any hope of "supporting" the stock market. Investors become so uncomfortable holding a zero-interest asset that they feel compelled to get rid of it by purchasing some other asset that they imagine will provide them with a better return. The first thing they typically buy is Treasury bills. But create enough of the stuff, and investors will chase other assets too. Unfortunately, the moment the holder of base money buys some other asset, the person who sold it ends up with the zero-interest hot potato. The chart below reflects data since 1929, showing the relationship between the quantity of base money (relative to nominal GDP) and the level of short-term interest rates.



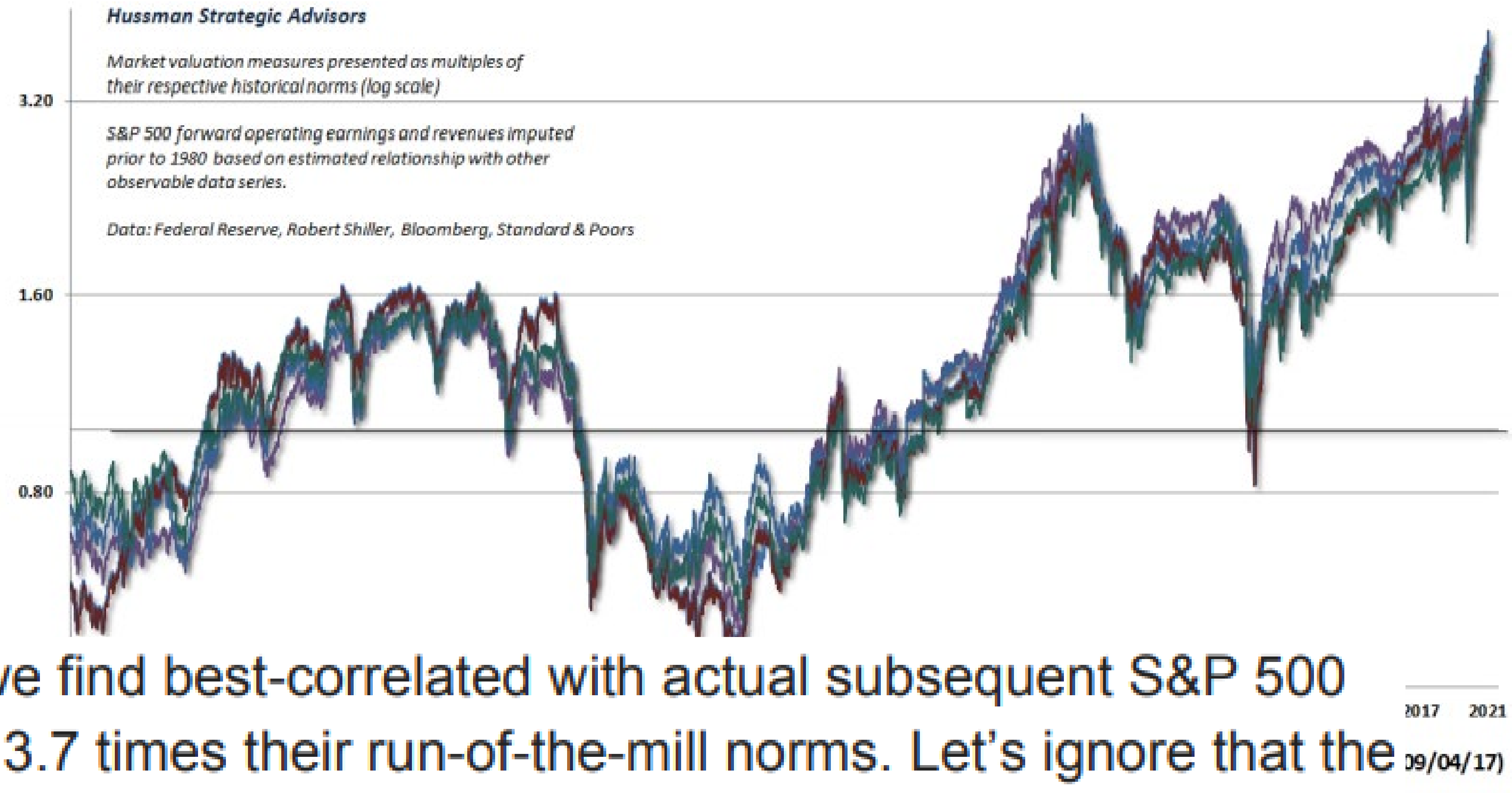
How does monetary stimulus work?



As a policy, quantitative easing is very straightforward: the Federal Reserve buys interest-bearing Treasury securities, and pays for them with zero interest base money (currency and bank reserves) that someone has to hold at every moment in time until that base money is retired.

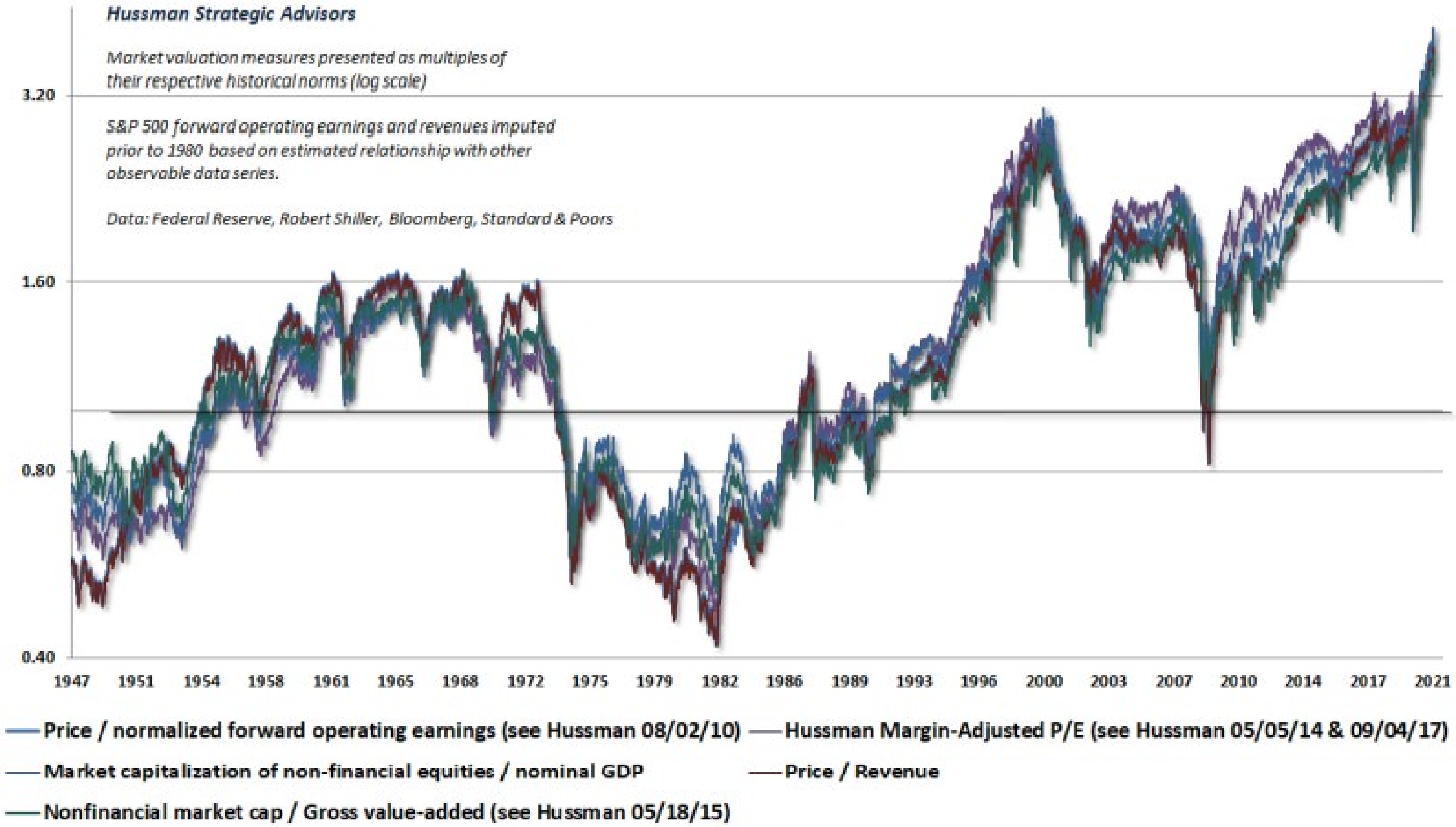
That's it. That's the entire *mechanism* by which QE has any hope of "supporting" the stock market. Investors become so uncomfortable holding a zero-interest asset that they feel compelled to get rid of it by purchasing some other asset that they imagine will provide them with a better return. The first thing they typically buy is Treasury bills. But create enough of the stuff, and investors will chase other assets too. Unfortunately, the moment the holder of base money buys some other asset, the person who sold it ends up with the zero-interest hot potato. The chart below reflects data since 1929, showing the relationship between the quantity of base money (relative to nominal GDP) and the level of short-term interest rates.

Most popular valuation metrics at record highs



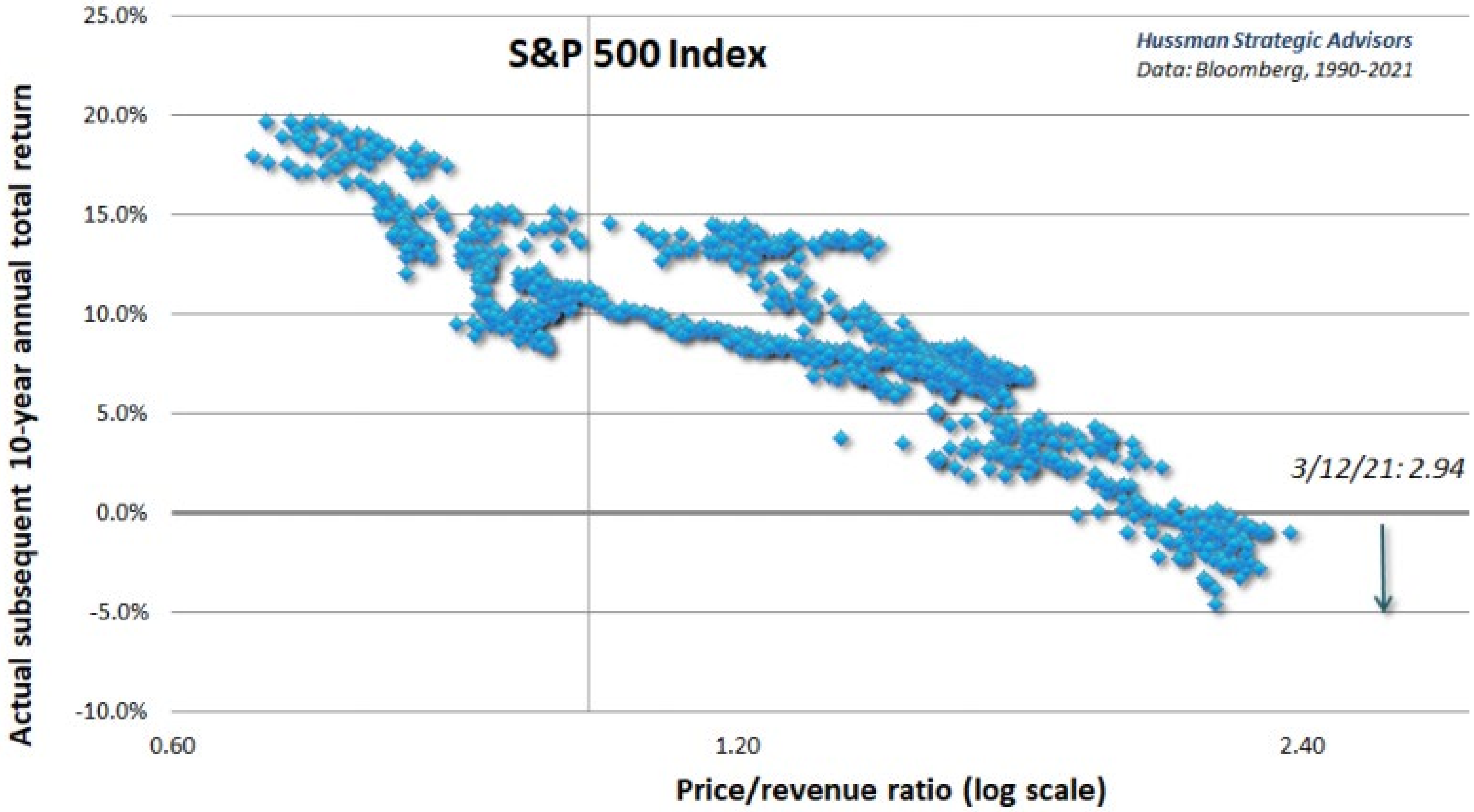
Presently, the valuation measures we find best-correlated with actual subsequent S&P 500 total returns across history stand at 3.7 times their run-of-the-mill norms. Let's ignore that the market has also spent half of its time below those run-of-the-mill norms.

Most popular valuation metrics at record highs

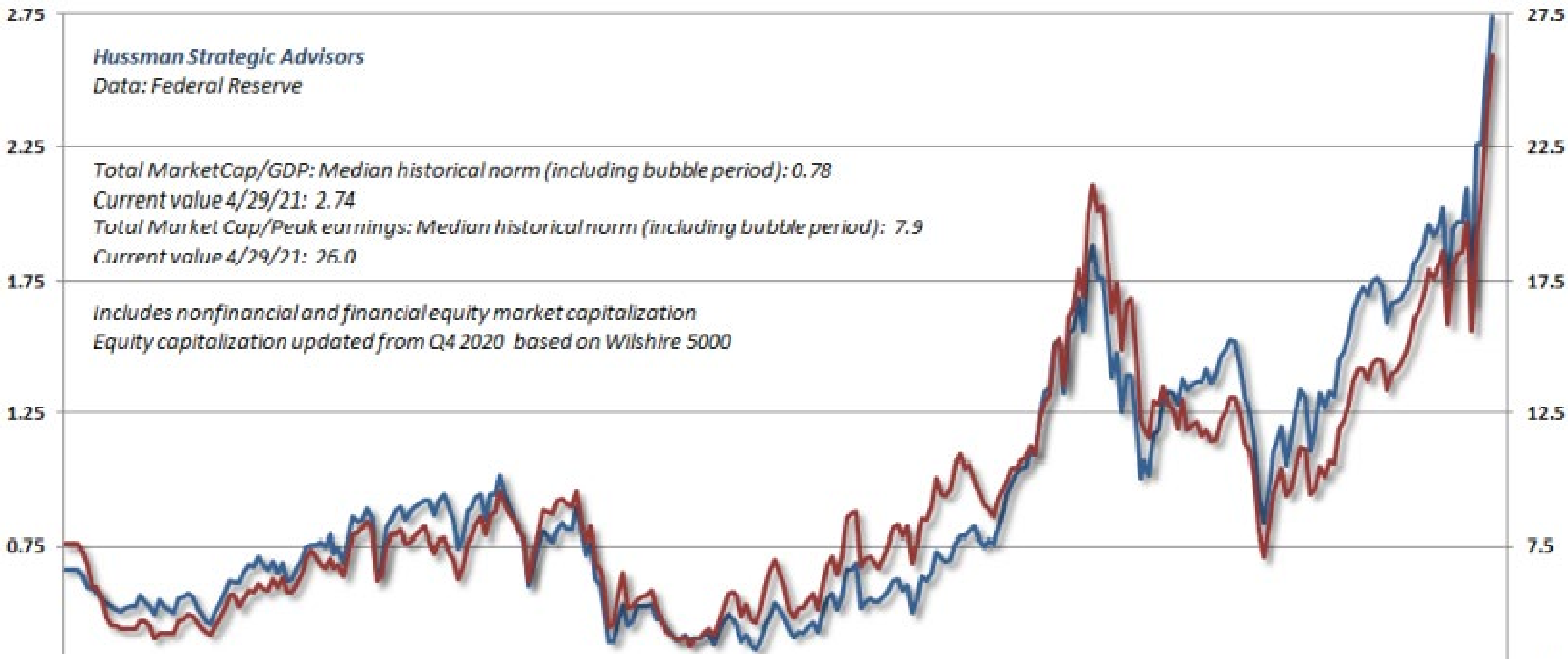


Presently, the valuation measures we find best-correlated with actual subsequent S&P 500 total returns across history stand at 3.7 times their run-of-the-mill norms. Let's ignore that the market has also spent half of its time below those run-of-the-mill norms.

Relationship hold over time

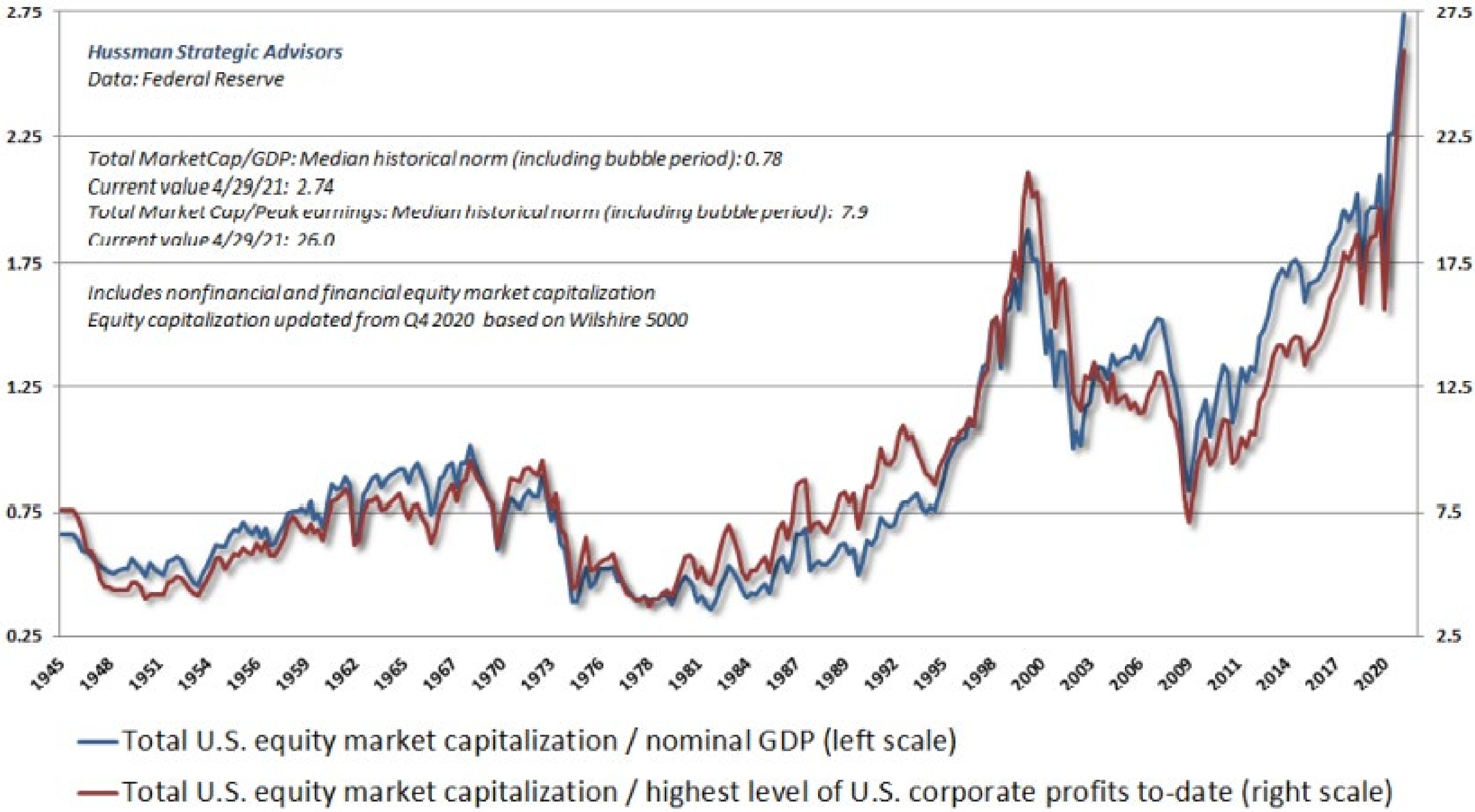


Not just about Price-to-Revenue”



Note that current extremes aren’t just an artifact of using price/revenue ratios. If one compares total U.S. equity market capitalization to the highest level of U.S. corporate profits to-date, at every point in time, the same extreme is evident here.

Not just about Price-to-Revenue”



Note that current extremes aren't just an artifact of using price/revenue ratios. If one compares total U.S. equity market capitalization to the highest level of U.S. corporate profits to-date, at every point in time, the same extreme is evident here.

Answer in a single picture

JULEX CAPITAL

Things Have Changed

The U.S. stock market was cheaper on the eve of the Roaring '20s than at any time before or since

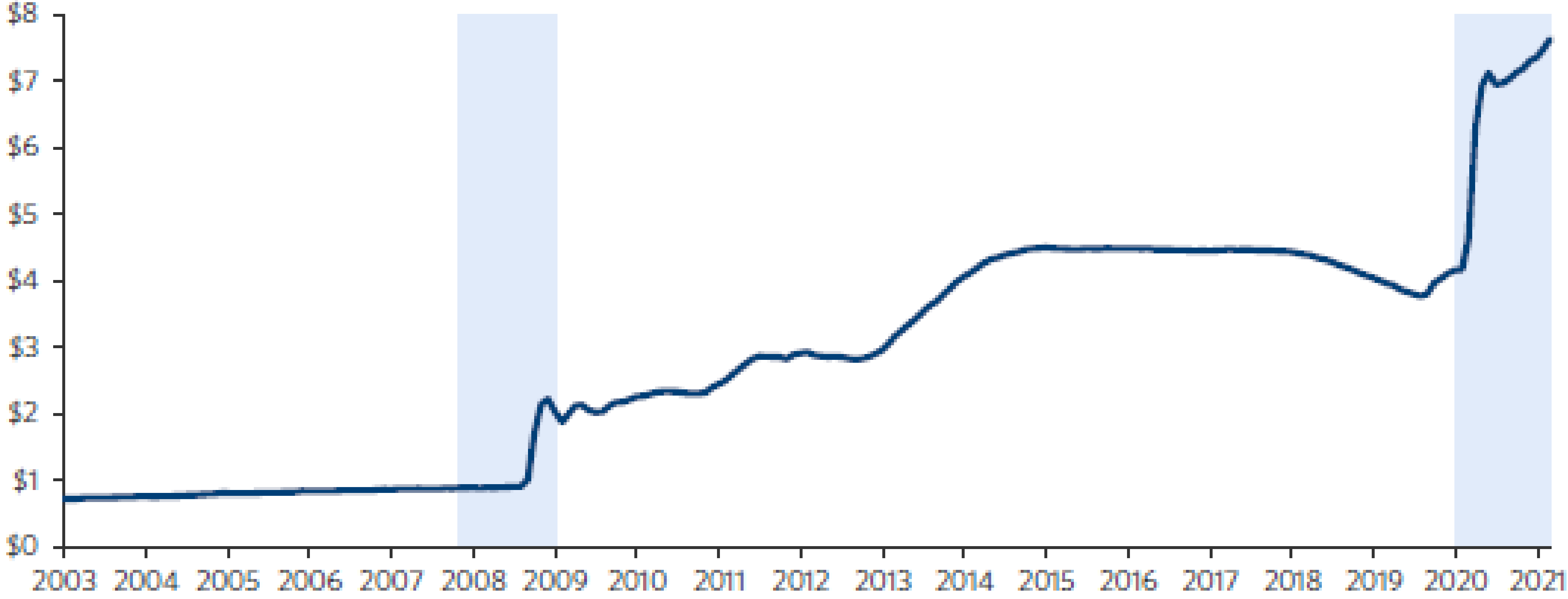
Source: Robert Shiller

How did we get to this point?

JULEX CAPITAL

Exhibit 1. Already-Large Fed Balance Sheet Ballooned in Response to Pandemic

Total Assets of the Federal Reserve (Less Eliminations from Consolidations) in Trillions of Dollars, January 2003 through March 2021



Source: Federal Reserve; data as of April 5, 2021.

Quick history

- The U.S. stock market bottomed out, mid-day on March 6, 2009
- Through mid-day June 2, 2021 . . . the S&P 500 has returned +701%
- Or an annualized 18.53% per year for 12.24 years
- TAA did not do anywhere near this number

The current bull market started March 6, 2009

JULEX CAPITAL

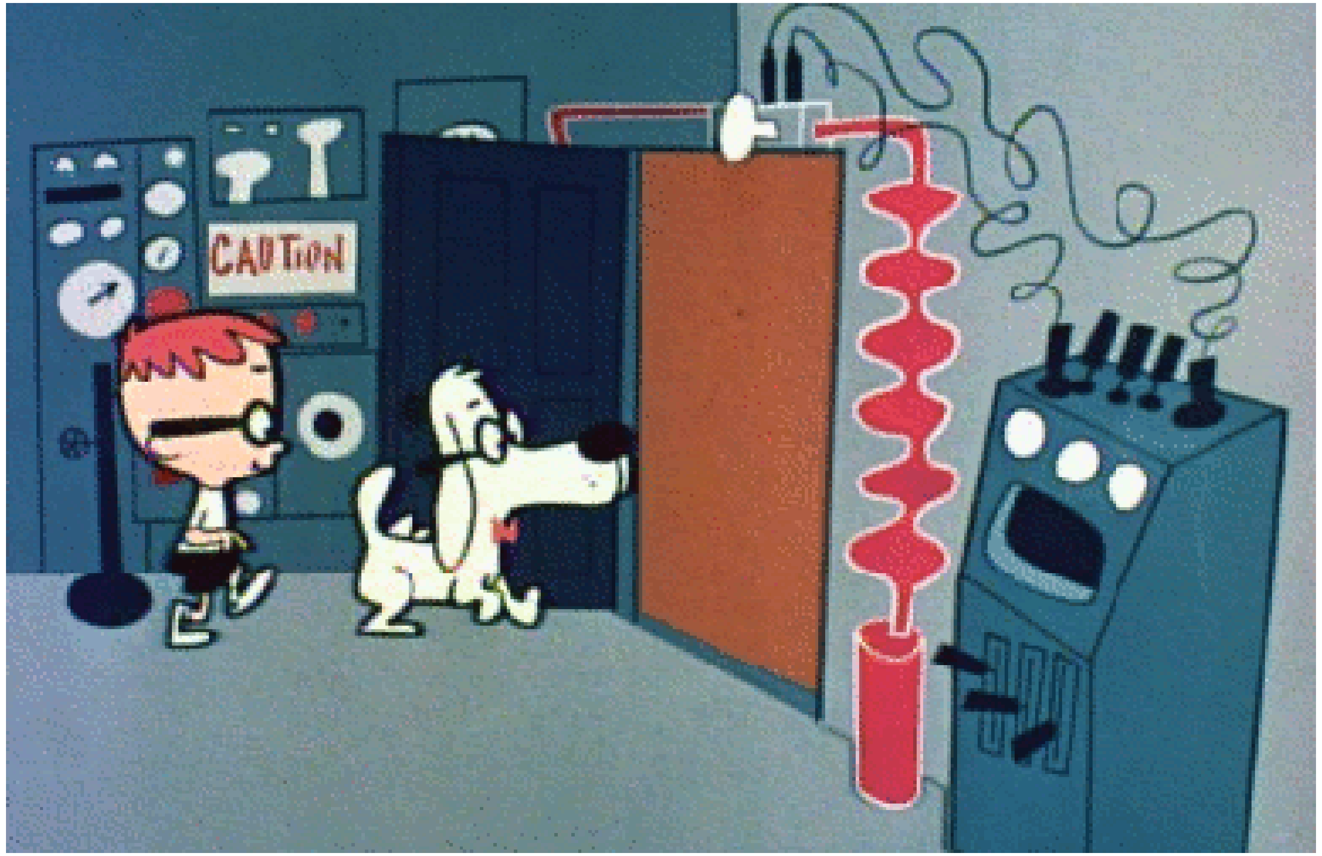
- Compared to the past/prior 15 bull markets
- The current bull market has
- Lasted longer than 73%
- Delivered a greater cumulative return than 80%
- So . . . relative to history . . . it could last even longer and rise even further
- But . . . is that a bet worth taking?

Mr. Peabody and the Wayback machine

Time travel is not possible

Your clients can’t invest in the past

Only in the future



Client-facing collateral

Investment Library collateral

Sometimes People Just Don't Fact-Check

Some have falsely claimed that market cycles are getting shorter

Tactical Asset Allocation (TAA) relies on trending or momentum for its success. Some have falsely claimed that market cycles are getting shorter, and therefore TAA no longer has the inherent advantage that it once did. Let's fact-check this claim in order to determine its truth or falsehood.

Read More

Which Portfolio is Lower Risk?

We care most about risk when the sky is falling

When the market is going up, we don't care about risk. But when it's collapsing, we do. Since 1920, there have been nine stock bear markets. Let's compare how four hypothetical portfolios performed during these nine traumatic events.

Read More

But Has TAA Worked Better Than Bonds?

Investment Library collateral

JULEX CAPITAL

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

What happens when interest rates rise?

How does TAA perform during rising/falling interest rate environments?

To answer this question, we must:

- Identify a time period to examine,
- Specify how we define rising and falling interest rate environments,
- Identify a simple transparent TAA portfolio that anyone could replicate, and
- Provide comparative passive index benchmarks.

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

Time - Can be your best friend

Matching a need - with an investment portfolio

I've determined how much I plan to spend (and gift) during years 10 through 15 (in the future). To support this plan, my portfolio will be invested for 12 ½ years (on average), the midpoint of this interval.

Many would suggest that an appropriate and common-sense asset mix would be 50% stocks and 50% bonds given this investment time horizon. No, not necessarily today, given current market valuations, but certainly as a normal average asset mix when one's investing for 12 ½ years.

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

Why doesn't BlackRock offer TAA?

If TAA is so good, then why doesn't everyone offer it?

First off, BlackRock, Nationwide, Invesco, and Fidelity all offer TAA products. Nevertheless, the investment industry widely appreciates that TAA is not commercially viable, i.e., it won't sell well. How do we understand this seeming contradiction? As we explore this question, keep in mind the distinction between a product selling well in a commercial setting . . . and that same product being the best possible investment solution for an individual investor. The two have little if any overlap. Let's begin.

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

A Pretty Good Outcome

Let's try a thought experiment - What if . . .

What if we build a passive portfolio from the 32 asset categories shown in the graphic below using the following weighs: 30.3% US stocks, 29.3% international stocks, 5.0% US Treasury bonds, 31.5% US investment grade corporate bonds, 1.4% international bonds, 1.3% gold, and 1.2% other commodities. Over the last 102 years (ending 1/31/2021) this portfolio would have delivered 11.53% per annum. That's pretty good.

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

But has TAA worked better than bonds?

Is TAA versus bonds the right comparison?

Probably not. But to answer this question, we must first identify the all-important investment timeframe. I'm assuming here that the investor is targeting needs arriving between 5 and 20 years in the future. Therefore, their investment holding period or time horizon is 5 to 20 years.

For such an investor, a pure 100% bond portfolio won't work. It won't be able to generate the needed returns. Similarly, a pure 100% stock portfolio won't work. It'll be too volatile, exposing the investor to an undue likelihood of having to liquidate at an unfortunate point in time (when their account value is down).

The Journal of Portfolio Management

VOLUME 44, NUMBER 1 www.iijpm.com FALL 2017

A Century of Evidence on Trend-Following Investi

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

Which portfolio is lower risk?

We care most about risk when the sky is falling

When the market is going up, we don't care about risk. But when it's collapsing, we do. Since 1920, there have been nine stock bear markets. Let's compare how four hypothetical portfolios performed during these nine traumatic events.

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

The way back is closed, only the path forward remains open

There are different types of change

It's a trite phrase to say *"change is the natural order of things,"* sounds too much like an excuse.

Worse yet, it serves to mask the different types of change - and how the best approach for dealing with one type of change is the worst for another.

Different types of change are distinguished by two attributes:

- Speed or pace
- Smoothness or direction

AQR

A Century of Evidence on Trend-Following Investing

Brian Hurst
Principal

Yao Hua Ooi
Principal

Lasse H. Pedersen, Ph.D.*
Principal

Fall 2014

Executive Summary

We study the performance of trer investing across global markets s extending the existing evidence by mo years. We find that trend following ha

PERSPECTIVES ON TACTICAL ASSET ALLOCATION (AKA SECTOR ROTATION)

JULEX CAPITAL

Sometimes people just don't fact-check

Some have falsely claimed that market cycles are getting shorter

Tactical Asset Allocation (TAA) relies on trending or momentum for its success. Some have falsely claimed that market cycles are getting shorter, and therefore TAA no longer has the inherent advantage that it once did. Let's fact-check this claim in order to determine its truth or falsehood.

But first, let's work to better understand this issue. The following graph shows two different market paths. Each starts and ends at the same spot, and therefore both generate the same total return after many years.

For more information contact

Jeff Megar, CFA
Email jeff.megar@julexcapital.com
Office 781-772-1378

Bob Peatman
Email bob.peatman@julexcapital.com
Cell 617-875-9316

Important Disclosures

All data and statistics were provided by Global Financial Data, Inc. and by Hussman Strategic Advisors

This information in this presentation is for the purpose of information exchange. This is not a solicitation or offer to buy or sell any security. You must do your own due diligence and consult a professional investment advisor before making any investment decisions. The use of a proprietary technique, model or algorithm does not guarantee any specific or profitable results. Past performance is not indicative of future returns. The performance data presented are gross returns, unless otherwise noted.

The risk of loss in trading securities can be substantial. You should therefore carefully consider whether such trading is suitable for you in light of your financial condition. All information posted is believed to come from reliable sources. We do not warrant the accuracy or completeness of information made available and therefore will not be liable for any losses incurred.

Some part of the investment performance shown is HYPOTHETICAL. It is based on the back tests of historical data. Hypothetical performance results have many inherent limitations, some of which are described below. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program.

One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses or adhere to a particular trading program in spite of trading losses are material points which can also adversely affect actual trading results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program which cannot be fully accounted for in the presentation of hypothetical performance results and all of which can adversely affect actual trading results.

The composition of a benchmark index may not reflect the manner in which a Julex portfolio is constructed in relation to expected or achieved returns, investment holdings, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility, or tracking error targets, all of which are subject to change over time.

No representation or warranty is made to the reasonableness of the assumptions made or that all assumptions used to construct the performance provided have been stated or fully considered.