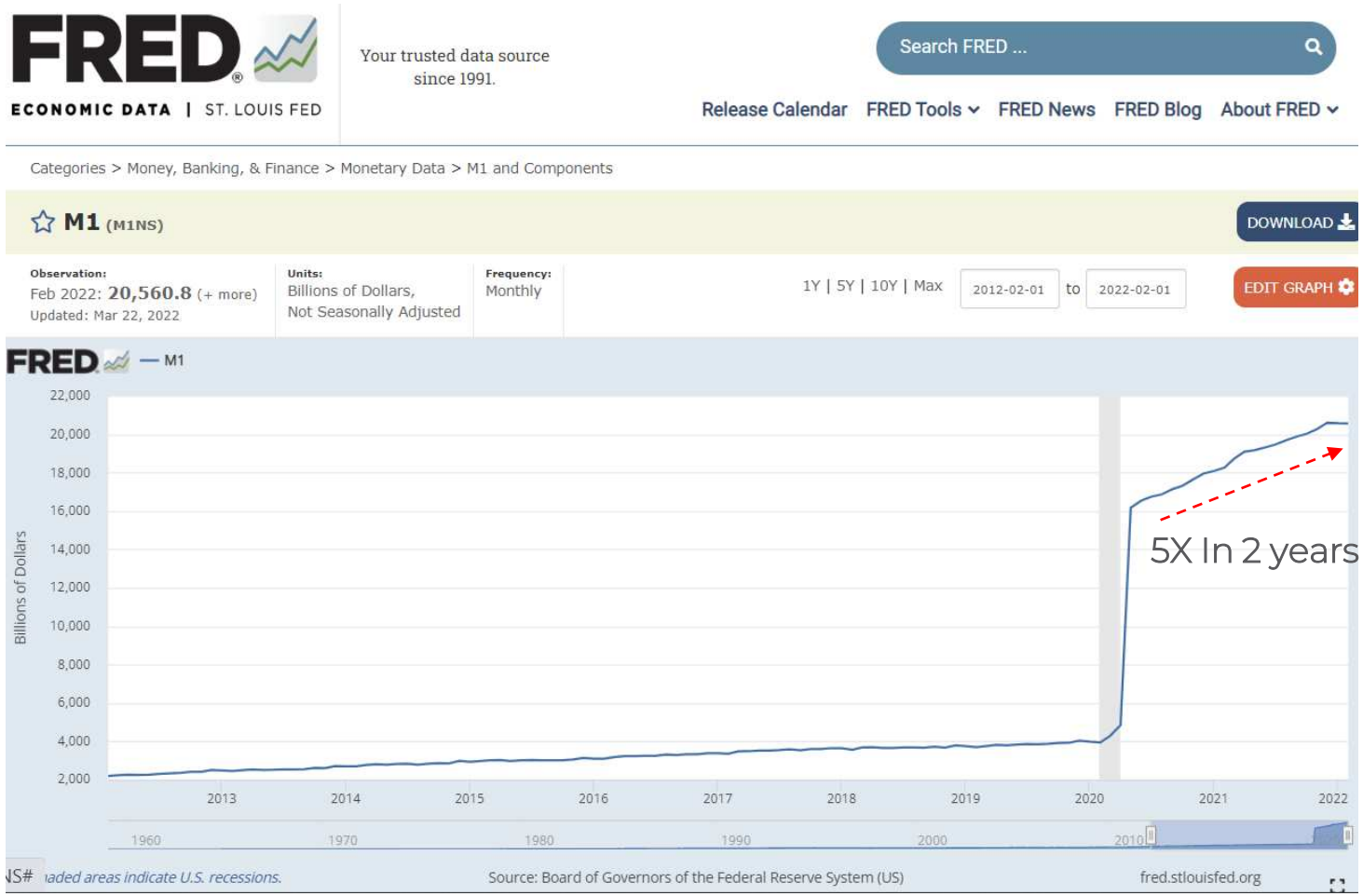
MARGIN

WEALTH MANAGEMENT REIMAGINED

Just Markets Update

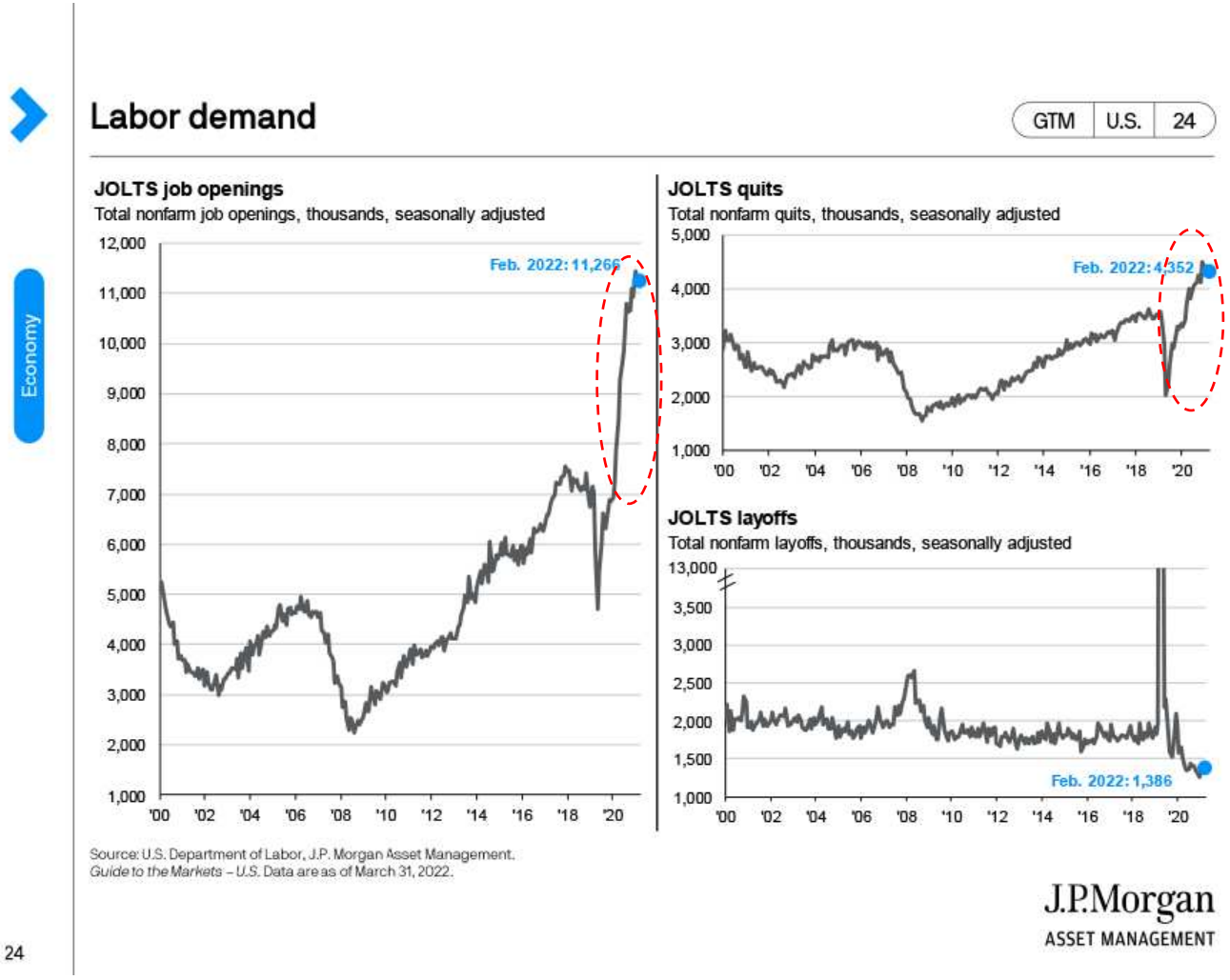
04.20.2022

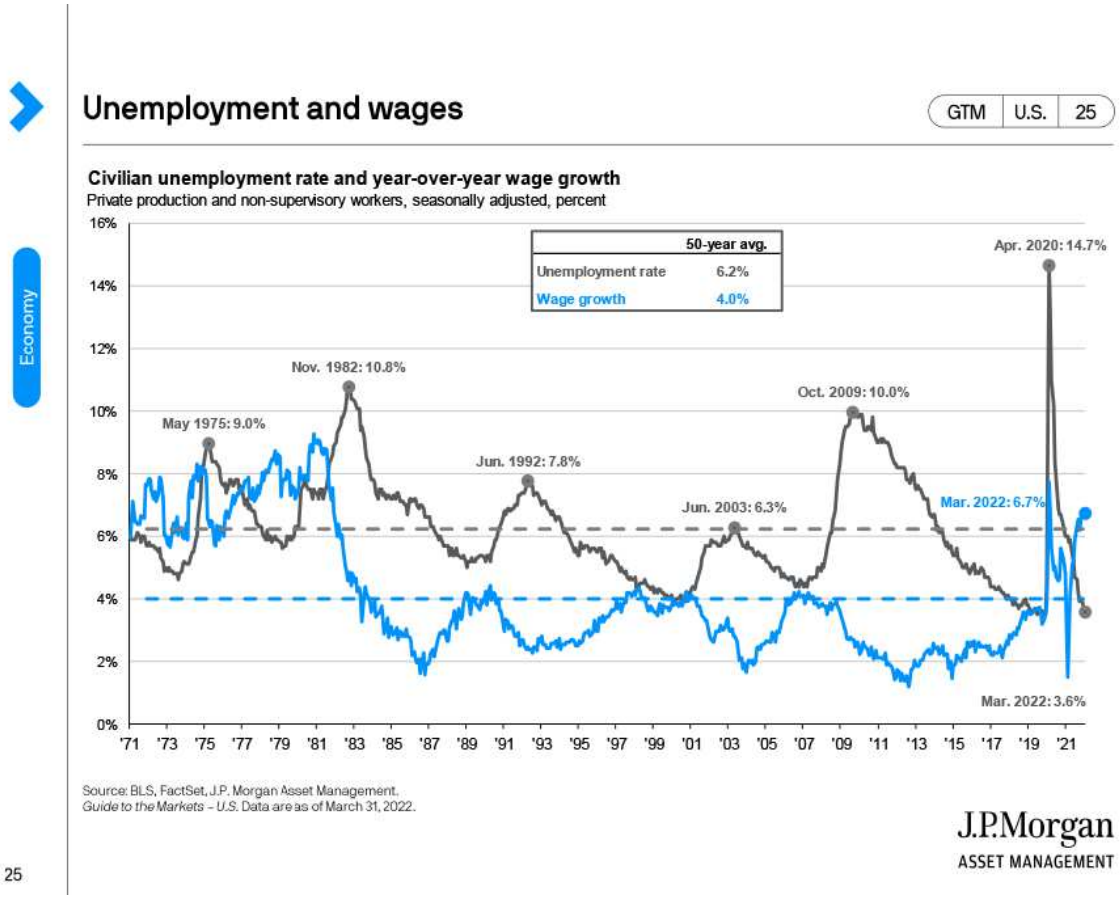
We printed a few (trillion) Dollars



Source: FRED

Nobody wants to work





Source: JP Morgan - Guide to the Markets 3.31.2022

Inflation...


Wall Street Silver @WallStreetSilv · Apr 9
How to keep the same lifestyle after inflation:
22
270
1,462

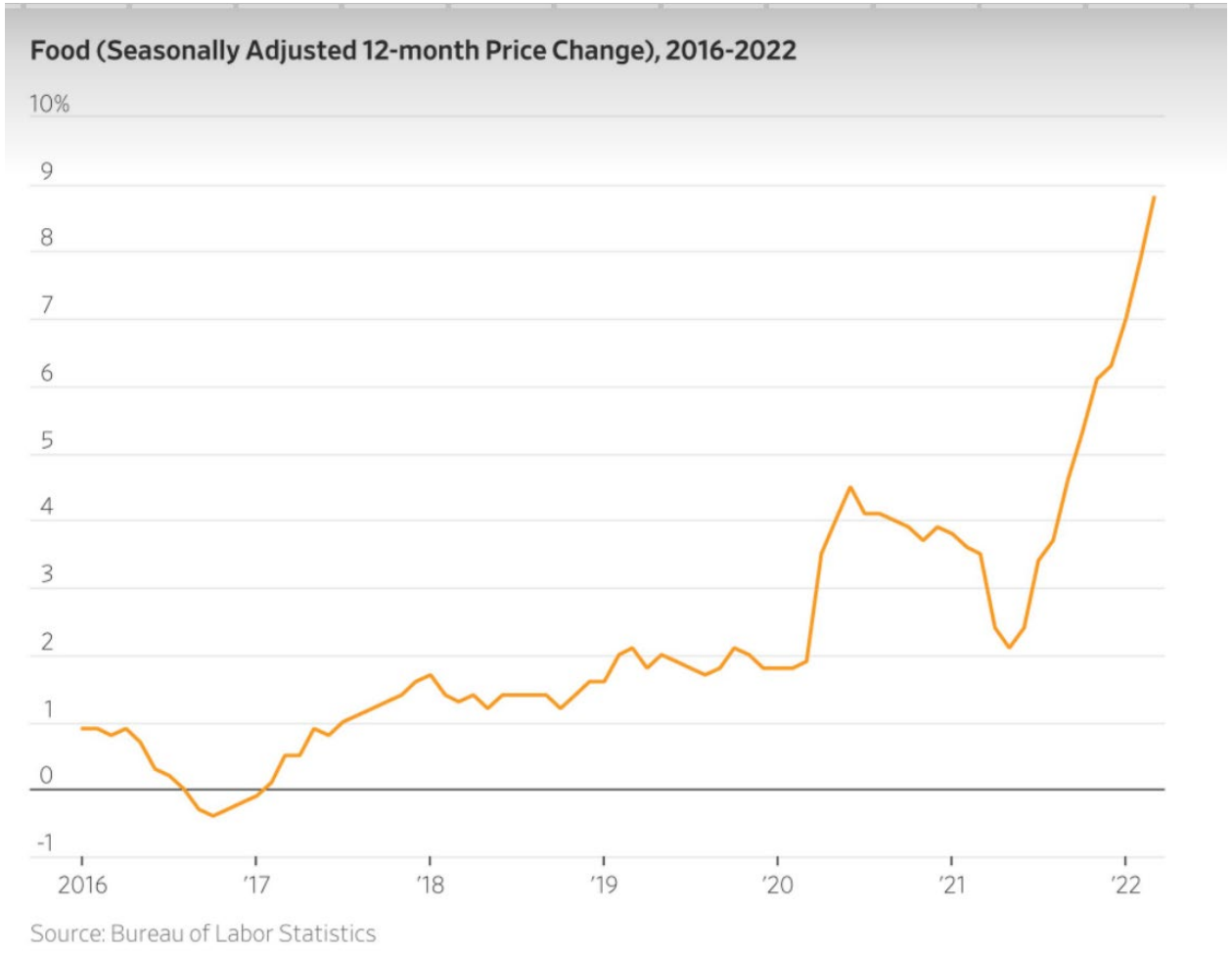

I'm telling you, inflation is trans...
Take your economist bullshit down to the local supermarket!

Inflation? Let's Change the Calculation

CITY	2016	2017	2018	2019	1ST HALF OF 2020	5YR AVG
1. New York	10.8%	11.2%	12.6%	12.1%	12.7%	11.9%
2. Los Angeles	11.1%	11.6%	12.1%	12.6%	13.1%	12.1%
3. Chicago	10.9%	11.0%	11.9%	10.7%	11.2%	11.1%
4. Houston	8.9%	8.7%	8.8%	9.7%	9.7%	9.2%
5. Philadelphia	11.2%	10.8%	10.6%	11.2%	11.0%	11.0%
6. Phoenix	8.1%	9.2%	7.4%	7.6%	8.1%	8.1%
7. San Antonio	8.8%	8.8%	9.3%	9.8%	9.2%	9.2%
8. San Diego	12.2%	11.8%	11.7%	11.2%	11.1%	11.6%
9. Dallas	8.9%	9.2%	8.7%	8.4%	9.3%	8.9%
10. San Jose	12.9%	13.3%	12.7%	12.6%	12.8%	12.9%
11. Jacksonville	8.4%	8.6%	8.0%	8.7%	9.0%	8.5%
12. Indianapolis	9.5%	9.1%	10.3%	9.3%	8.8%	9.4%
13. San Francisco	13.2%	12.8%	12.6%	12.1%	13.3%	12.8%
14. Austin	9.7%	10.0%	10.8%	10.8%	9.7%	10.2%

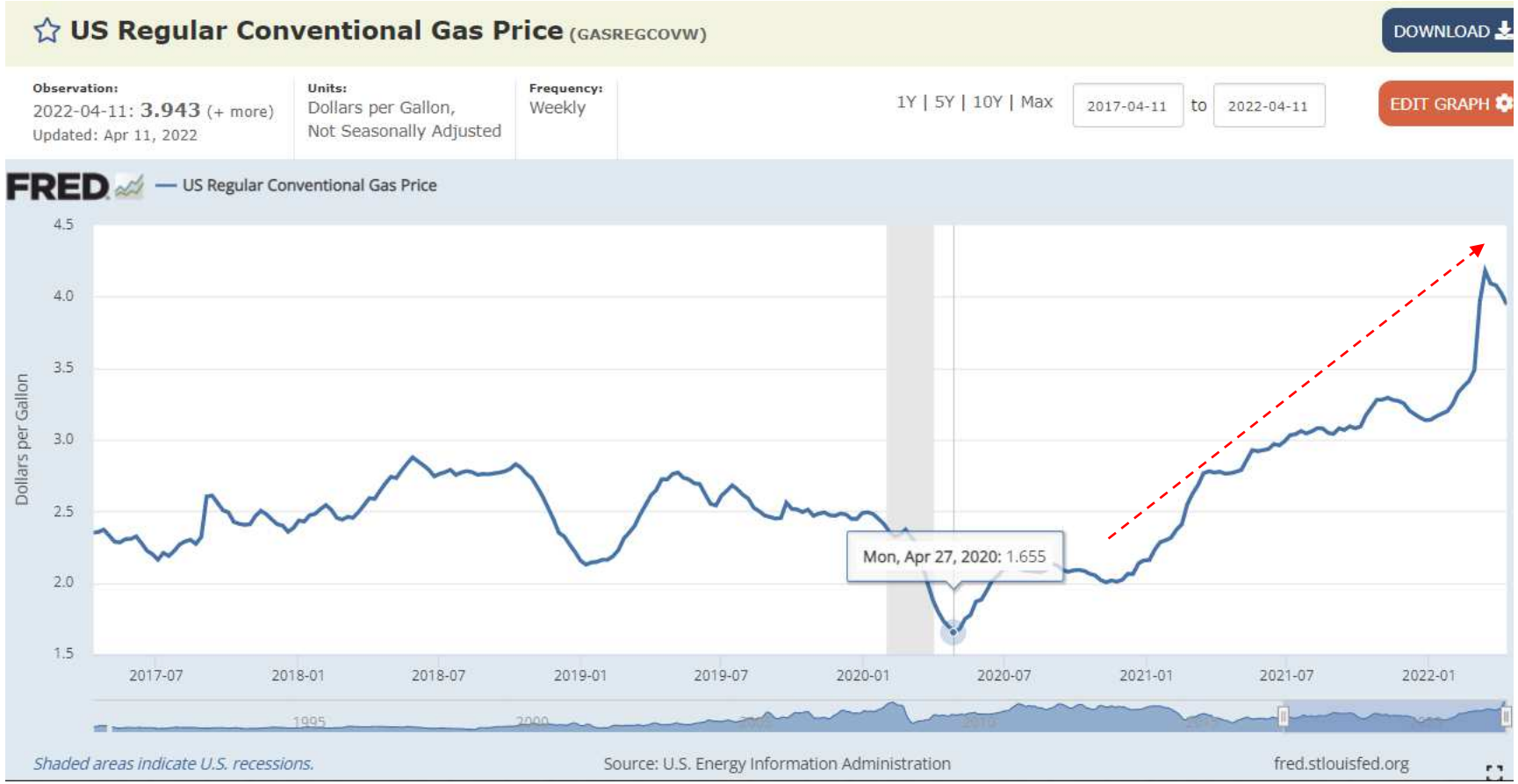
Source: http://www.chapwoodindex.org/ & http://www.shadowstats.com/alternate_data/inflation-charts

Inflation…No for real this time (Food)



Source: WSJ.com

Inflation…No for real this time (Energy)



Source: FRED

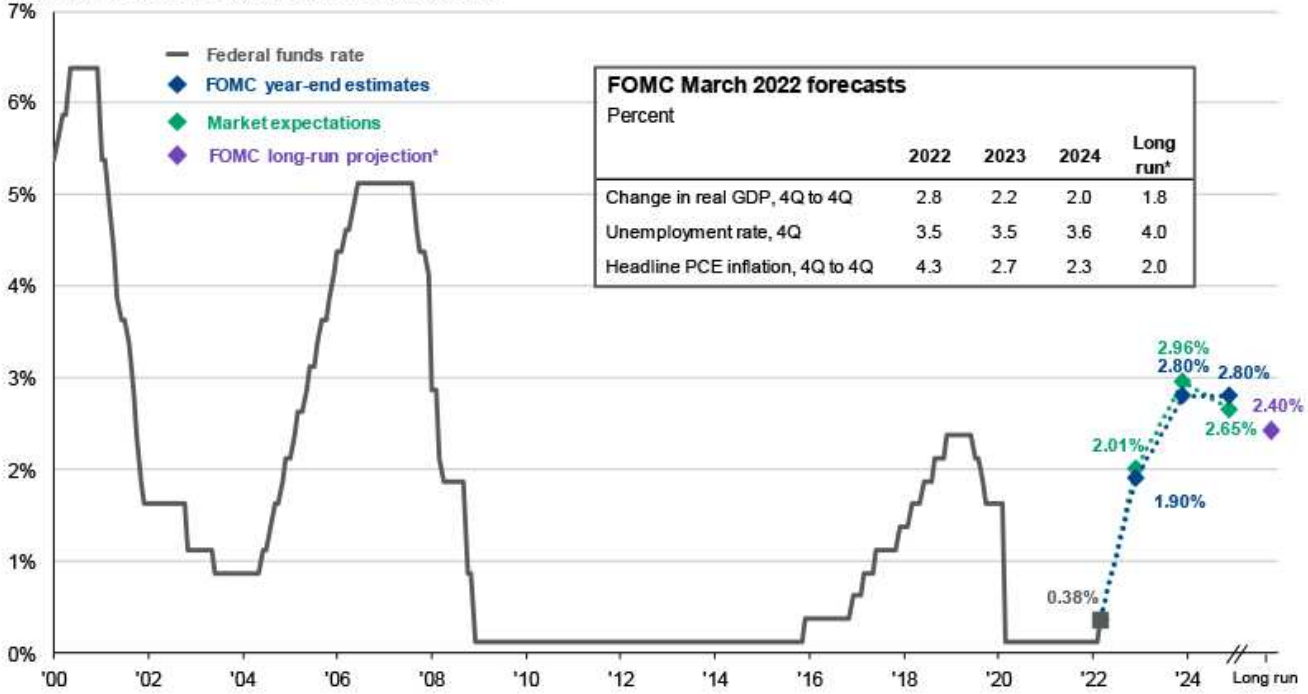
Market NOT waiting on the FED

The Fed and interest rates

GTM | U.S. | 32

Federal funds rate expectations

FOMC and market expectations for the federal funds rate



FOMC March 2022 forecasts

Percent

	2022	2023	2024	Long run*
Change in real GDP, 4Q to 4Q	2.8	2.2	2.0	1.8
Unemployment rate, 4Q	3.5	3.5	3.6	4.0
Headline PCE inflation, 4Q to 4Q	4.3	2.7	2.3	2.0

Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.
Market expectations are based off of the respective Federal Funds Futures contracts for December expiry. *Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.
Guide to the Markets – U.S. Data are as of March 31, 2022.

J.P.Morgan
ASSET MANAGEMENT

Source: JP Morgan - Guide to the Markets 3.31.2022

Interest Rates Jump – Short Time Frame

Source: Koyfin

Interest Rates Rocket Up…But Longer-Term…

2.90% - 4.19.2022

Source: https://twitter.com/JackPScott/status/1512465730838663171/photo/1

Interest Rates Rocket Up...Invert the Curve

Charlie Bilello
@charliebilello

It's important to remember, however, that the yield curve has been a LONG leading indicator in the past, with an average of 19 months from the first inversion to the start of a recession...

Inverted Yield Curve (10-Yr minus 2-Yr) and Recessions (1976 - 2022)

Recession Start	Recession End	Inverted Yield Curve Before Recession?	First Yield Curve Inversion	Lead vs. Recession Start (Months)
Feb-80	Jul-80	Yes	Aug-78	18
Aug-81	Nov-82	Yes	Sep-80	11
Aug-90	Mar-91	Yes	Dec-88	20
Apr-01	Nov-01	Yes	May-98	35
Jan-08	Jun-09	Yes	Dec-05	25
Mar-20	Apr-20	Yes	Aug-19	7
?	?	?	Apr-22	?
Average Lead Time				**19**

COMPOUND @CharlieBilello

11:47 AM · Apr 5, 2022 · Twitter Web App

Yield Curve Inversions Can Be Bullish For Stocks

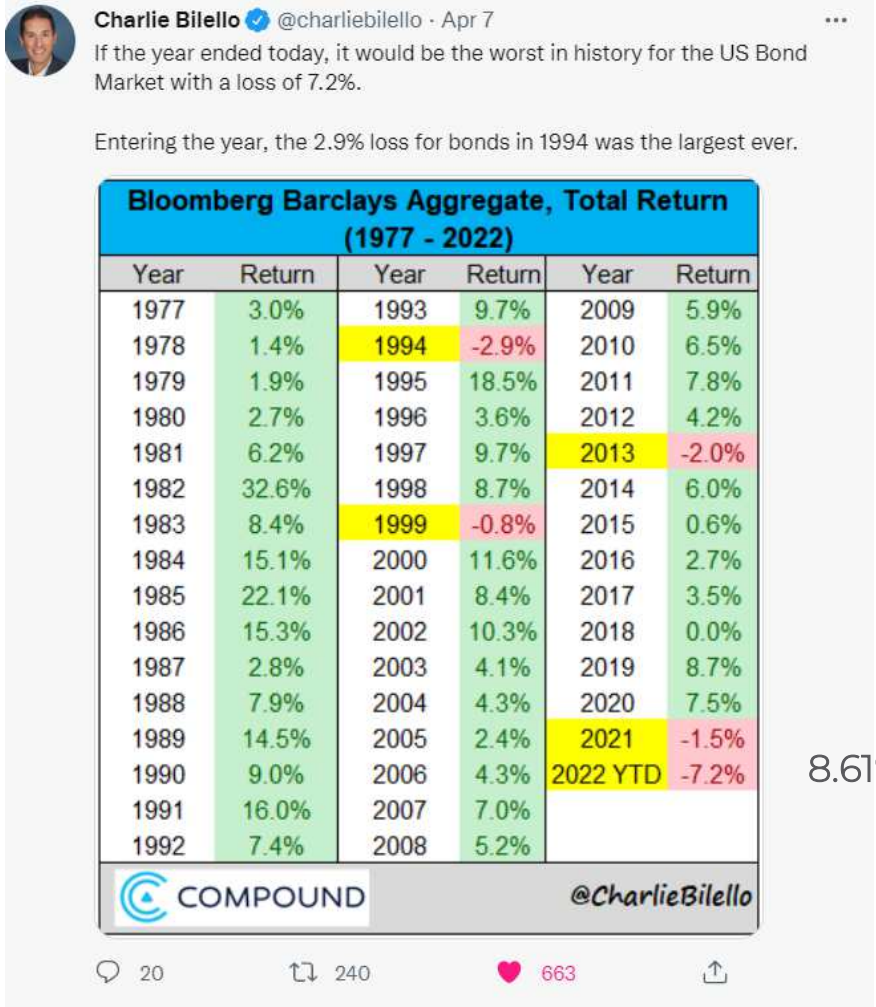
2 year/10 year Yield Curve Inversions

Date of Inversion	Bull Market Peak Date	S&P 500 Index Return	Months Till Bull Market Peak
12/13/1988	7/16/1990	33.2%	19.1
5/26/1998	3/24/2000	39.6%	22.0
12/27/2005	10/9/2007	24.6%	21.4
8/27/2019	2/19/2020	18.0%	5.8
	Average	28.8%	17.1
	Median	28.9%	20.2

Source: LPL Research, St. Louis Fed 03/30/2022 (Last Four Inversions)
All indexes are unmanaged and cannot be invested into directly. Past performance is no guarantee of future results.

Source: LPL & Twitter @CharlieBilello

Bonds are down…A lot



Charlie Bilello @charliebilello · Apr 7

If the year ended today, it would be the worst in history for the US Bond Market with a loss of 7.2%.

Entering the year, the 2.9% loss for bonds in 1994 was the largest ever.

Bloomberg Barclays Aggregate, Total Return (1977 - 2022)

Year	Return	Year	Return	Year	Return
1977	3.0%	1993	9.7%	2009	5.9%
1978	1.4%	1994	-2.9%	2010	6.5%
1979	1.9%	1995	18.5%	2011	7.8%
1980	2.7%	1996	3.6%	2012	4.2%
1981	6.2%	1997	9.7%	2013	-2.0%
1982	32.6%	1998	8.7%	2014	6.0%
1983	8.4%	1999	-0.8%	2015	0.6%
1984	15.1%	2000	11.6%	2016	2.7%
1985	22.1%	2001	8.4%	2017	3.5%
1986	15.3%	2002	10.3%	2018	0.0%
1987	2.8%	2003	4.1%	2019	8.7%
1988	7.9%	2004	4.3%	2020	7.5%
1989	14.5%	2005	2.4%	2021	-1.5%
1990	9.0%	2006	4.3%	2022 YTD	-7.2%
1991	16.0%	2007	7.0%		
1992	7.4%	2008	5.2%		

COMPOUND @CharlieBilello

20 240 663

8.61% YTD – April 18th

Source: Twitter @CharlieBilello

Mortgage Rates

Source: Koyfin

Home Prices

S&P CORELOGIC CASE-SHILLER

S&P CoreLogic Case-Shiller Home Price Indices

The S&P CoreLogic Case-Shiller Home Price Indices are the leading measures of U.S. residential real estate prices, tracking changes in the value of residential real estate nationally. For a list of additional indices, please refer to the S&P CoreLogic Case-Shiller Home Price Index Methodology.

Overview | Indices | News & Research

S&P CoreLogic Case-Shiller Composite

As of Jan 2022 Published Mar 29, 2022 EXPORT

INDEX NAME	1 MTH	3 MTH	YTD	1 YEAR	3 YEARS Annualized	5 YEARS Annualized	10 YEARS Annualized
S&P CoreLogic Case-Shiller 10-City	1.38%	3.42%	1.38%	17.53%	10.22%	7.87%	7.39%
S&P CoreLogic Case-Shiller 20-City	1.41%	3.55%	1.41%	19.09%	10.96%	8.49%	7.92%
S&P CoreLogic Case-Shiller US National	1.13%	2.93%	1.13%	19.17%	11.33%	8.82%	7.71%

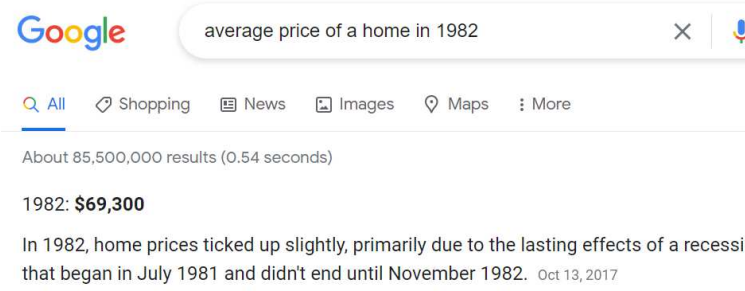
Higher Mortgage Rates = Higher Home Values...

Dates	Starting Mortage Rates	Ending Mortgage Rates	Housing Prices
1971-1974	7.3%	10.0%	18.1%
1977-1980	8.7%	16.3%	52.2%
1980-1981	12.2%	18.4%	7.4%
1983-1984	12.7%	14.7%	6.4%
1987-1989	9.1%	11.2%	16.8%
1993-1994	6.9%	9.3%	2.6%
1998-2000	6.6%	8.6%	13.0%
2003-2006	5.2%	6.8%	38.5%
2012-2013	3.3%	4.5%	10.7%
2015-2018	3.6%	5.0%	22.4%

Source: FRED

Mortage Rates: 30 Year Fixed Rate

Housing Prices: Case Shiller National Home Price Index



Source: https://awealthofcommonsense.com/

Mortgage Payments 2X Rents

Average Asking Rents and Median Monthly Mortgage Payments for Homebuyers, February 2022

Search:

U.S. Metro Area	Average Asking Rent	Year-Over-Year Change in Average Asking Rent	Median Monthly Mortgage (5% Down)	Year-Over-Year Change in Median Monthly Mortgage (5% Down)	Difference Between Year-Over-Year Change in Median Monthly Mortgage & Average Asking Rent
Austin, TX	$2,308	40.4%	$2,202	42.1%	2 pp
Portland, OR	$2,455	38.7%	$2,313	26.5%	-12 pp
Nassau County, NY	$3,858	35.7%	$2,581	23.3%	-12 pp
New Brunswick, NJ	$3,858	35.7%	$1,872	27.4%	-8 pp
New York, NY	$3,858	35.7%	$2,951	25.8%	-10 pp
Newark, NJ	$3,858	35.7%	$1,982	23.7%	-12 pp
Fort Lauderdale, FL	$3,010	30.3%	$1,599	29.9%	0 pp
Miami, FL	$3,010	30.3%	$1,982	36.1%	6 pp
West Palm Beach, FL	$3,010	30.3%	$1,762	28.8%	-2 pp
Denver, CO	$2,729	29.4%	$2,520	36.6%	7 pp
Orlando, FL	$2,061	29.1%	$1,586	35.4%	6 pp
Seattle, WA	$2,762	28.6%	$3,306	29.6%	1 pp
Phoenix, AZ	$2,153	26.1%	$2,009	44.6%	19 pp
Tampa, FL	$2,102	25.1%	$1,548	44.0%	19 pp

Rental Market Summary	February 2021	Month-Over-Month	Year-Over-Year
Average Monthly Rent	$1,901	0.5%	15.5%
Median Monthly Mortgage Payment for Homebuyers w/ 5% down payment	$1,716	7.5%	30.9%

Rents Up 15% Year Over Year, Mortgage Payments Up 31%

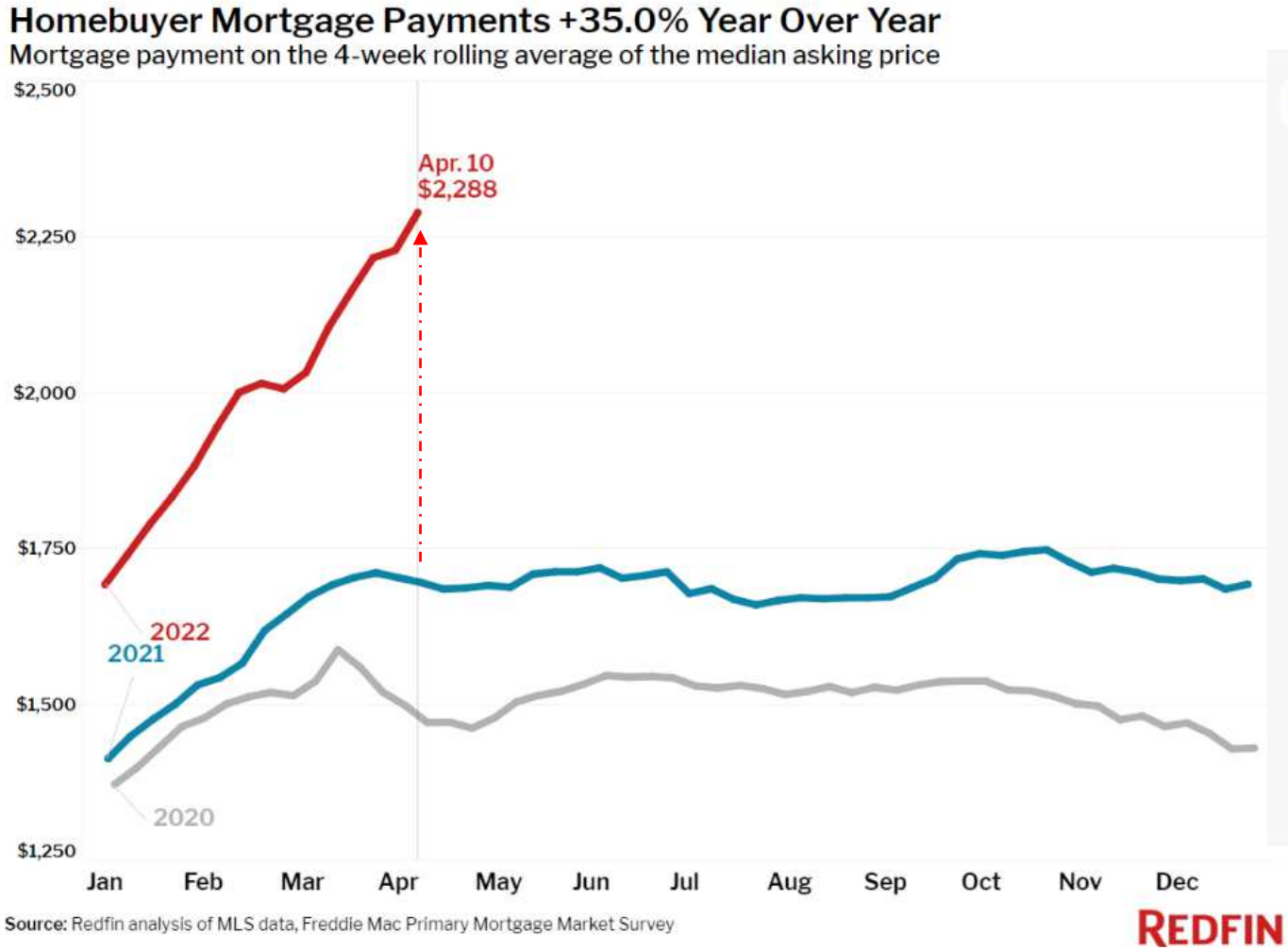
Source: Redfin analysis of asking rents & home sales data from the MLS & public records
Note: Mix of homes for rent and homes purchased are not directly comparable.

REDFIN

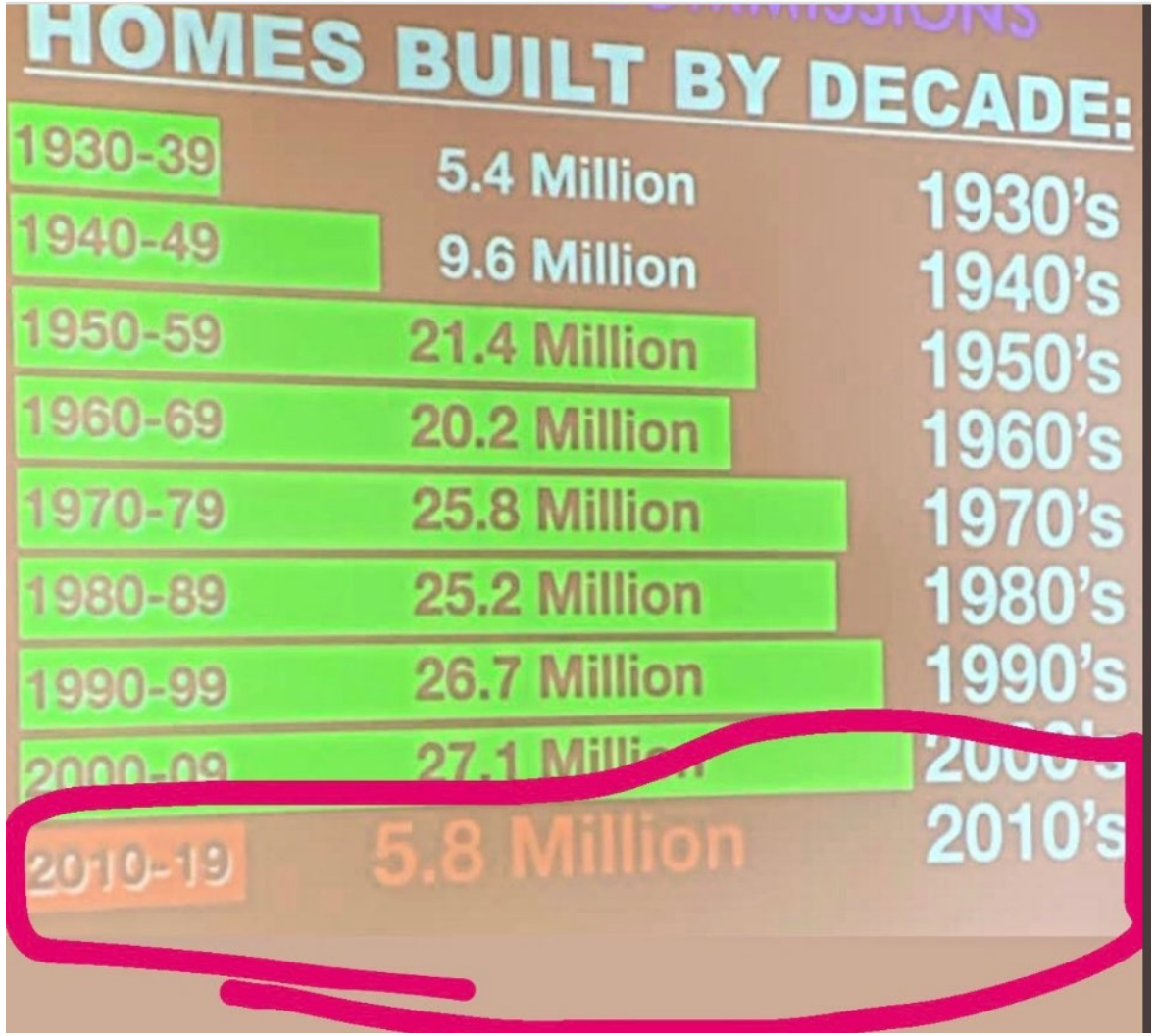
Mortgage payment increases outpaced asking rent increases in 44 of the 50 largest U.S. metro areas in February.

Source: Redfin

Affordability…Worst in 35 years

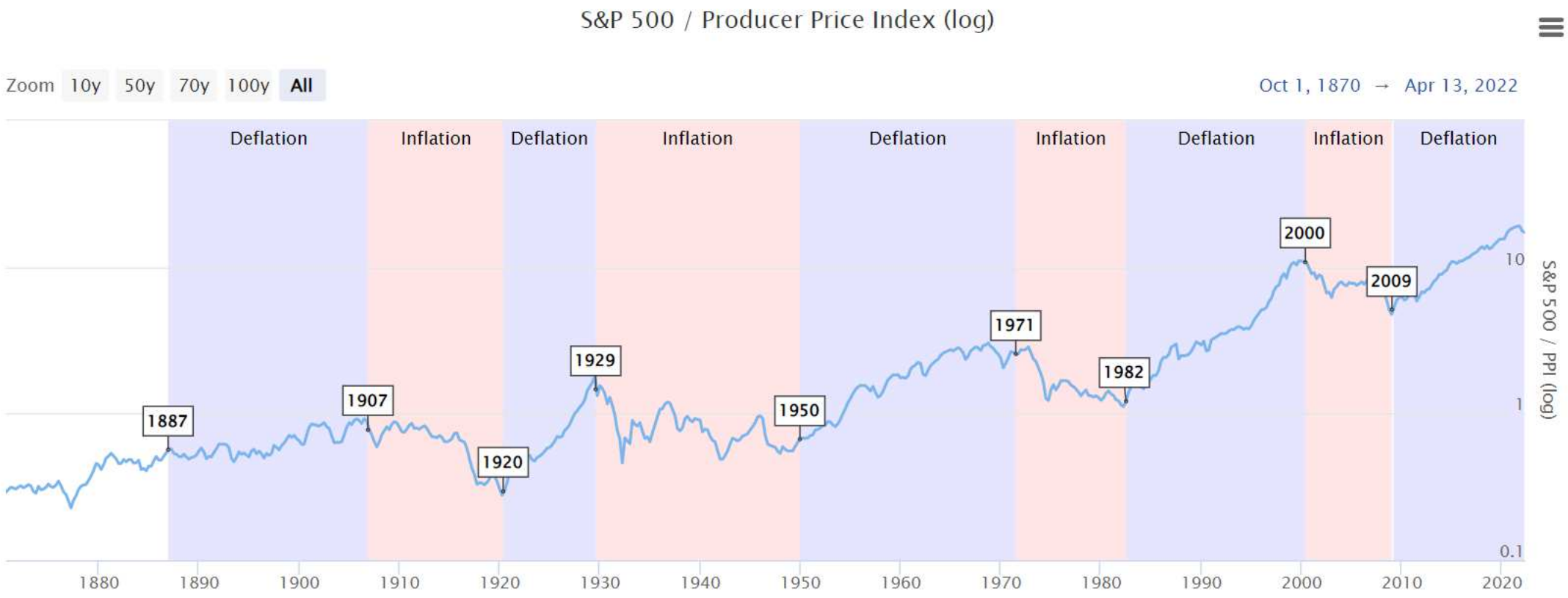


Housing…Supply and Demand



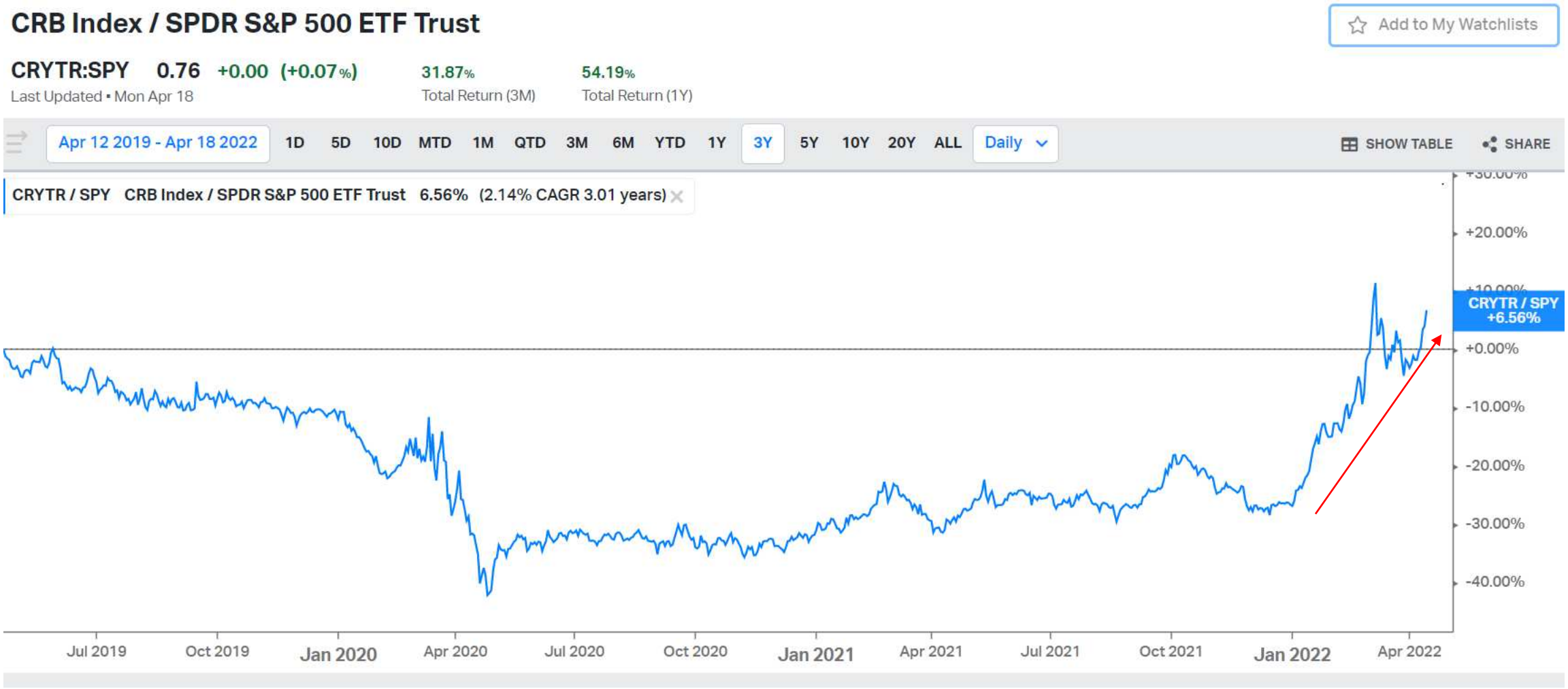
Source:
https://twitter.com/datarade/status/1511079521059061761/photo/

Long Cycles: Commodities Vs. Stocks



Source: https://www.longtermtrends.net/stocks-commodities-ratio/

Commodities Versus U.S. Equites



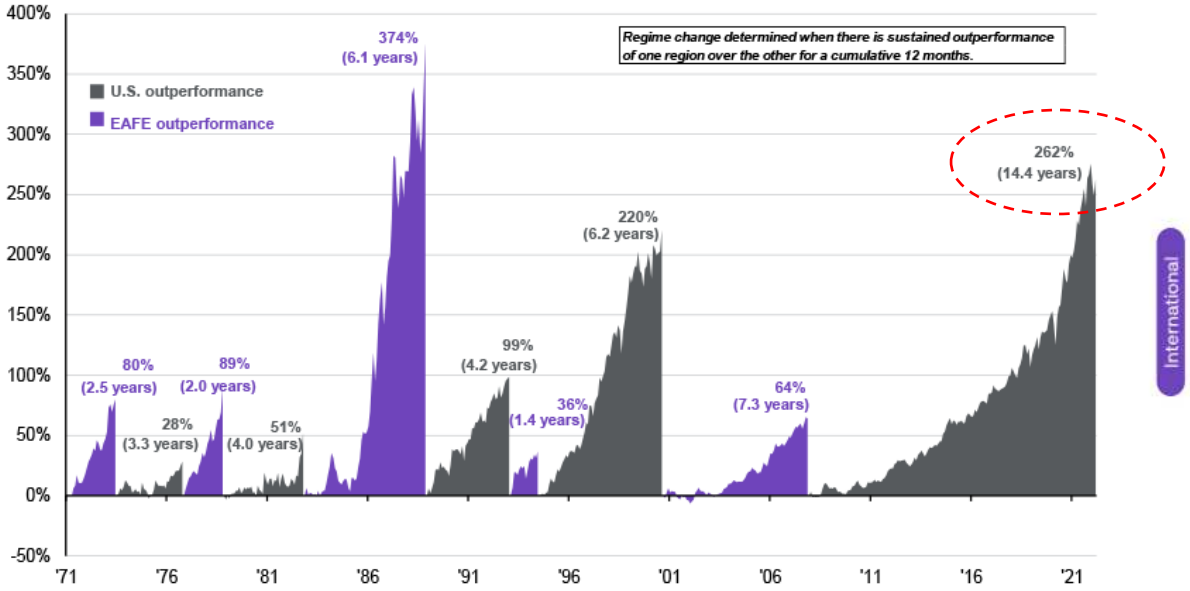
Source: Koyfin

Emerging Markets Versus U.S. Equites

Cycles of U.S. equity outperformance

GTM | U.S. | 46

MSCI EAFE and MSCI USA relative performance
U.S. dollar, total return, cumulative outperformance*



Source: FactSet, MSCI, J.P. Morgan Asset Management. *Cycles of outperformance include a qualitative component to determine turning points in leadership.
Guide to the Markets – U.S. Data are as of March 31, 2022.

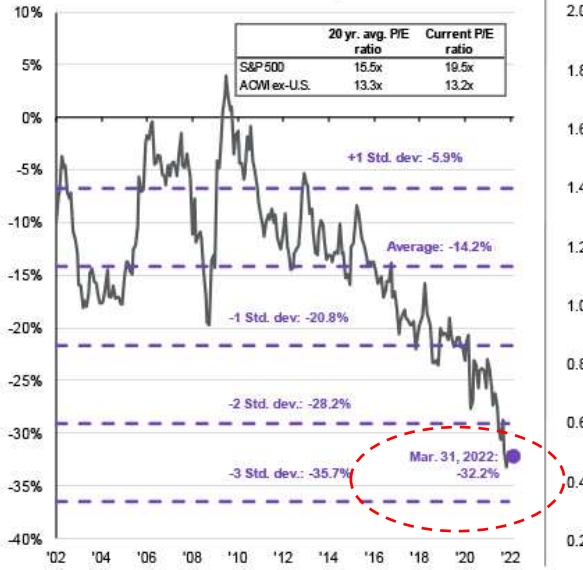
J.P.Morgan ASSET MANAGEMENT

46

International valuations and dividend yields

GTM | U.S. | 47

International: Price-to-earnings discount vs. U.S.
MSCI AC World ex-U.S. vs. S&P 500 Indices, next 12 months



International: Difference in dividend yields vs. U.S.
MSCI AC World ex-U.S. minus S&P 500 Indices, next 12 months

Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of March 31, 2022.

J.P.Morgan ASSET MANAGEMENT

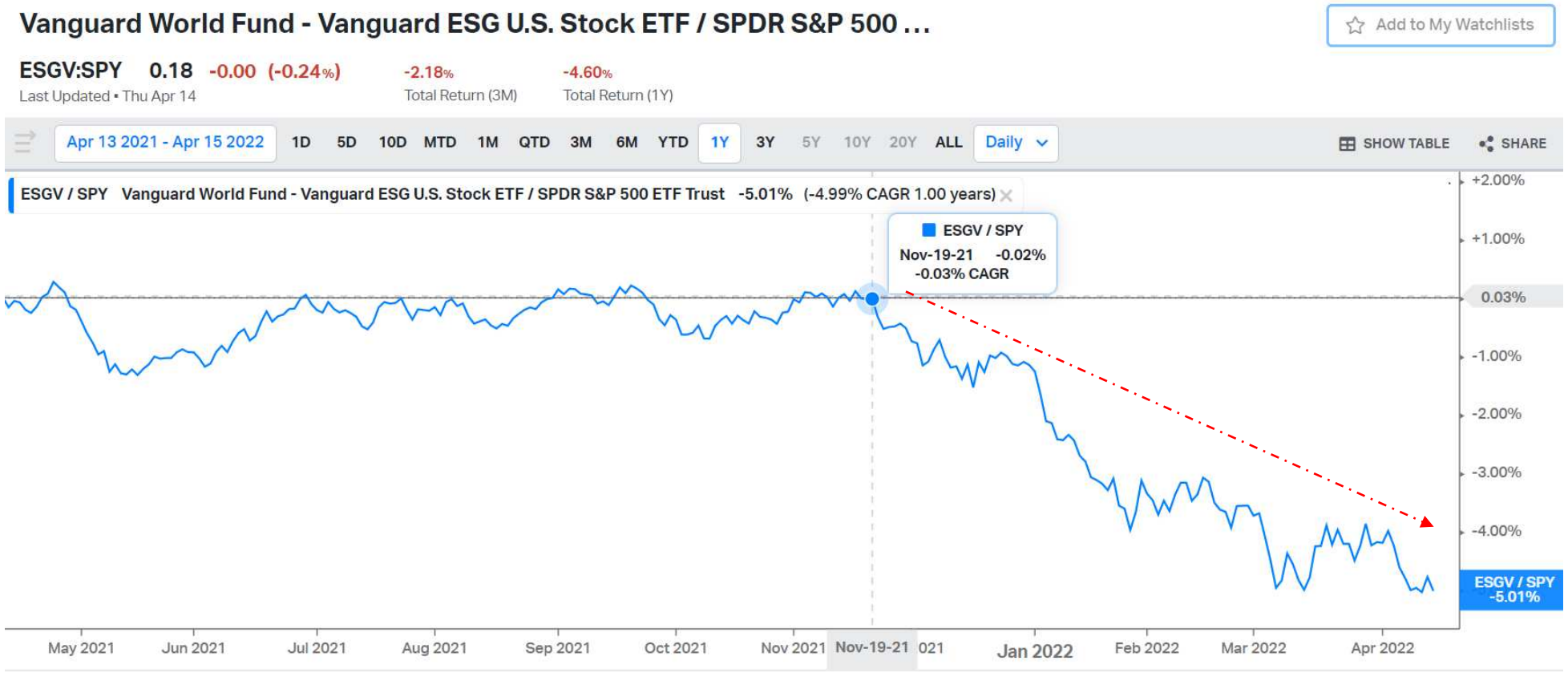
47

Source: JP Morgan - Guide to the Markets 3.31.2022

Emerging Markets Versus U.S. Equites

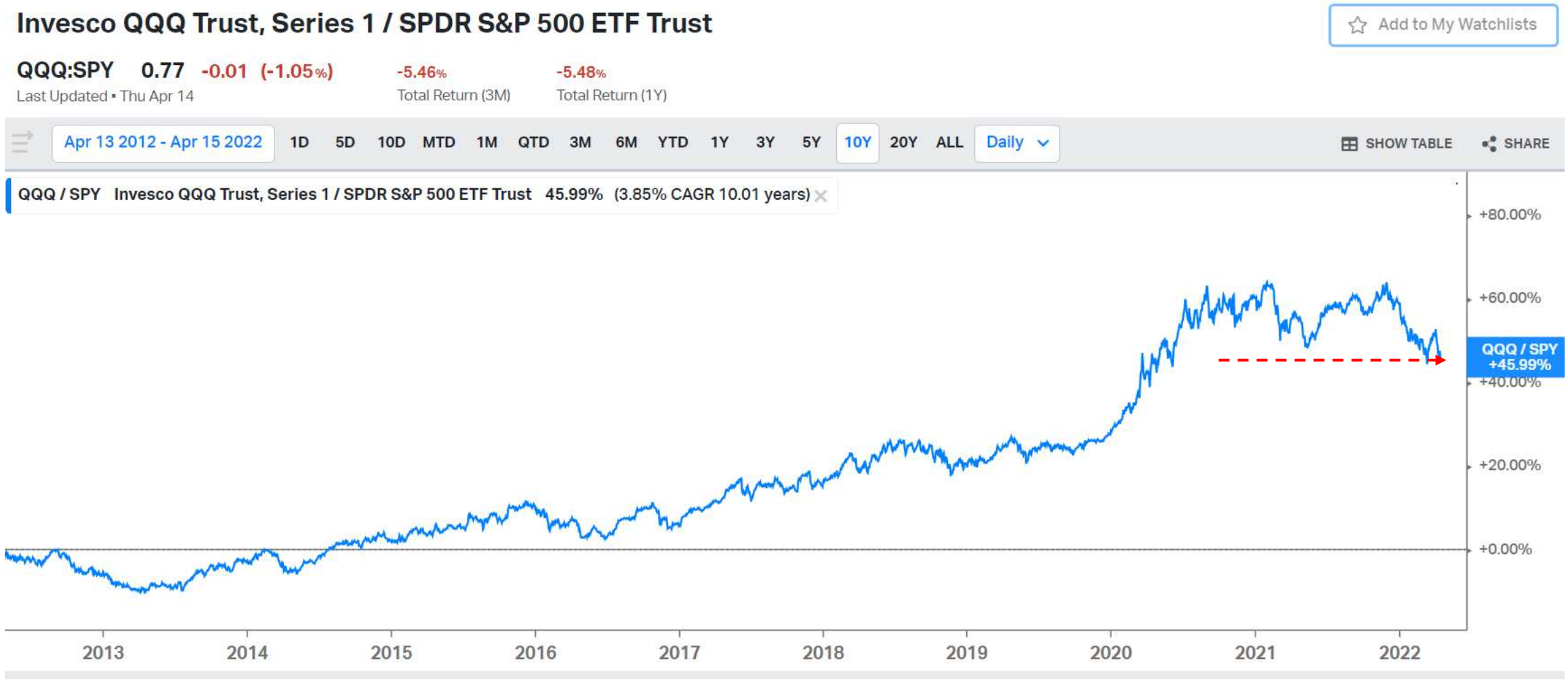
Source: Koyfin

ESG versus the Normal Stock Market



Source: Koyfin

Technology Equities Versus U.S. Equities



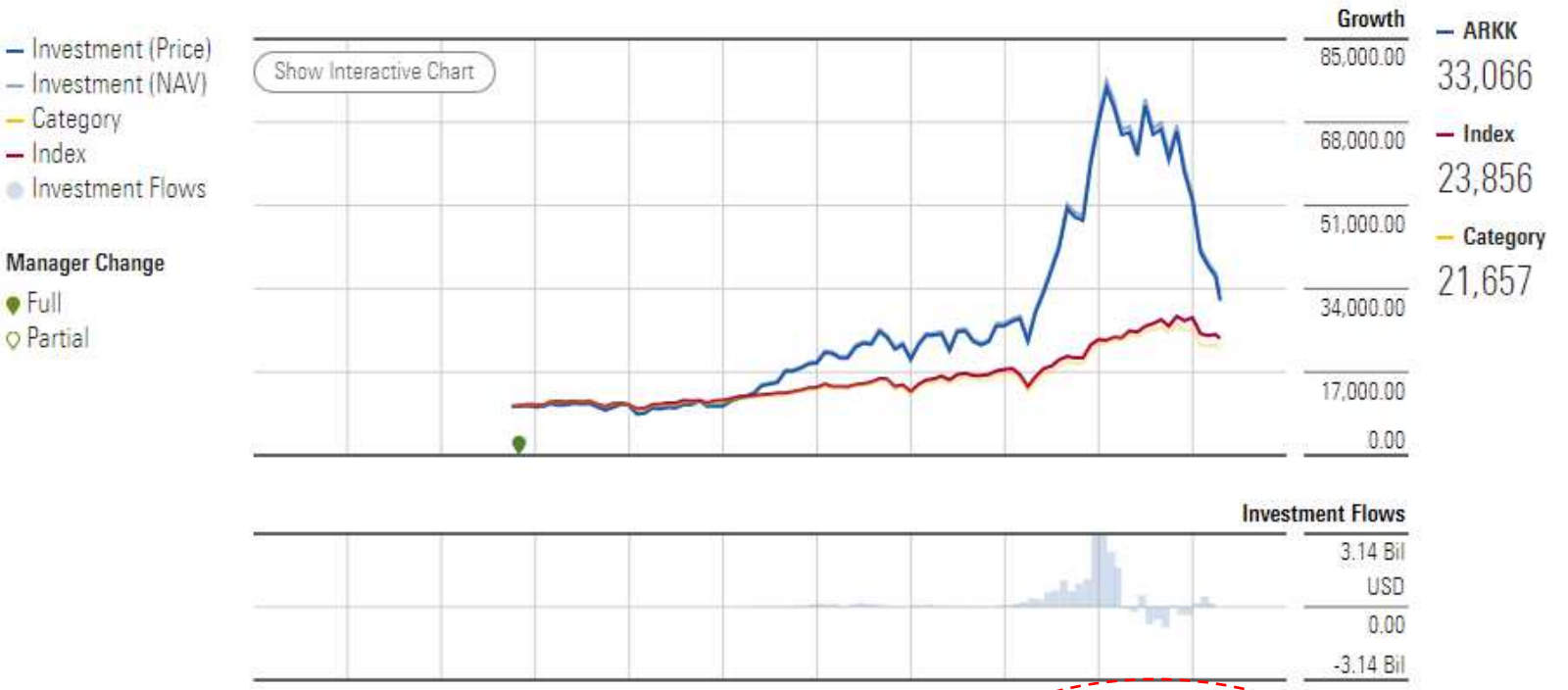
Source: Koyfin

Ark Innovation ETF…Falls

Performance

Returns | Distributions

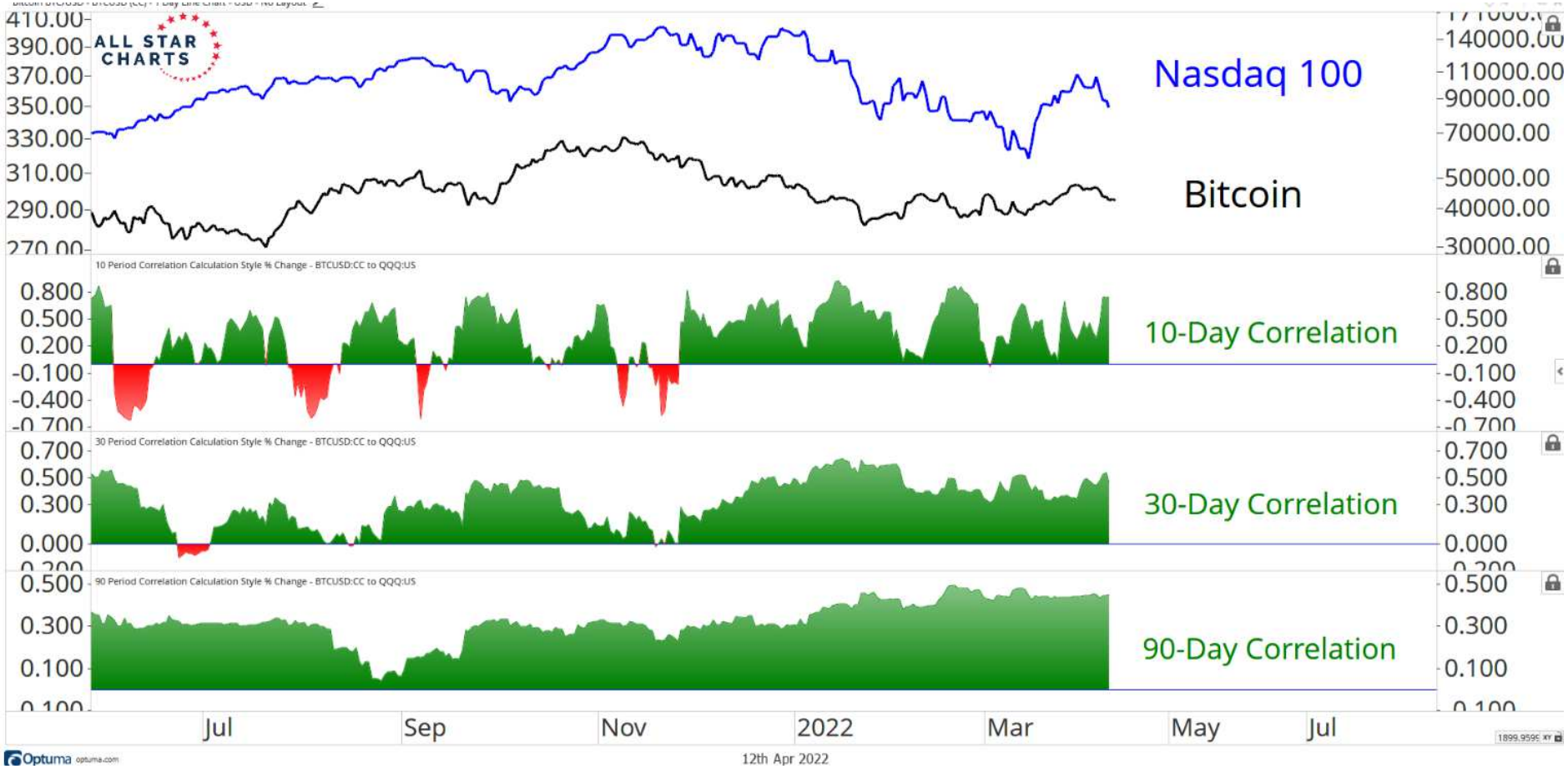
Growth of 10,000



Total Return %	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD
Investment (Price)	—	—	—	3.75	-2.00	87.34	3.51	35.58	156.91	-23.38	-39.37
Investment (NAV)	—	—	—	3.76	-1.96	87.38	3.58	35.73	156.61	-23.35	-37.67

Source: Morningstar

Bitcoin Hedges Inflation?



Source: https://twitter.com/allstarcharts/status/1513599186817662988/photo/1

Value Versus Growth

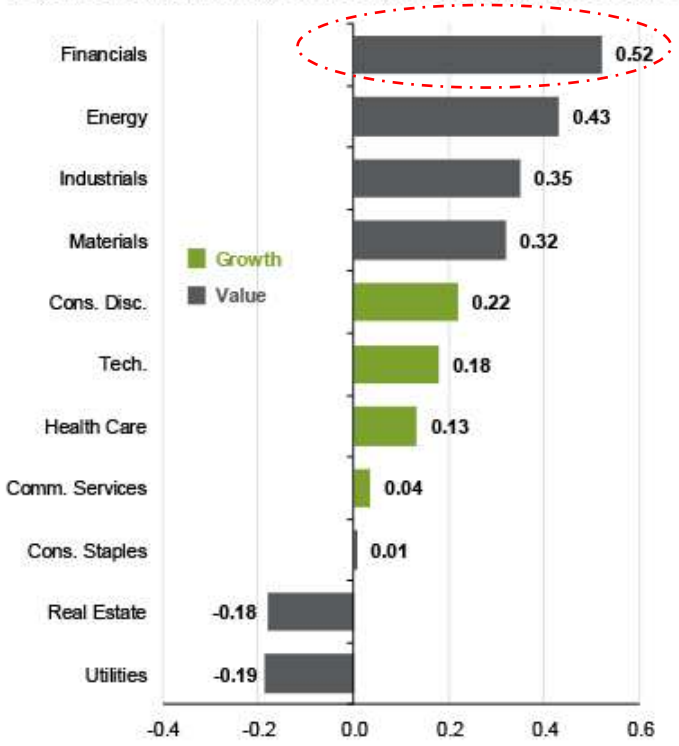
Value vs. Growth

GTM | U.S. | 10

Value vs. Growth relative valuations
Rel. fwd. P/E ratio of Value vs. Growth, 1997 - present

	Forward PE		Div. yield**	
Style	Current	Long-term avg.*	Current	Long-term avg.*
Value	15.30x	14.10x	2.08%	2.60%
Growth	26.82x	20.69x	0.81%	1.35%

S&P 500 sector correlations to U.S. 10-yr. Treasury yield
10-year correlations, monthly moves in yield vs. monthly price returns

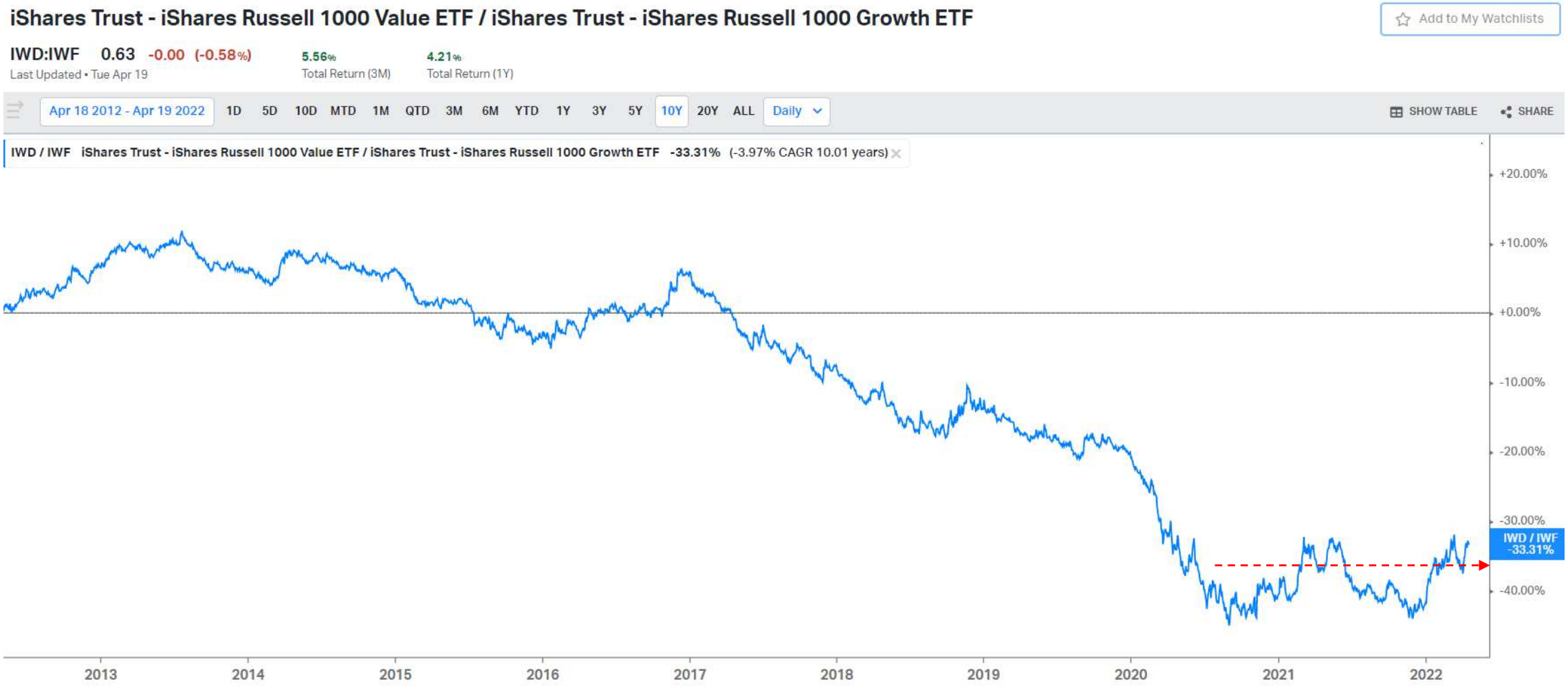


Source: FactSet, FTSE Russell, NBER, J.P. Morgan Asset Management.
(Left) Growth is represented by the Russell 1000 Growth Index and Value is represented by the Russell 1000 Value Index. *Long-term averages are calculated monthly since December 1997. **Dividend yield is calculated as the next 12-month consensus dividend divided by most recent price.
(Right) Correlations are calculated on a monthly basis over the last 120 months.
Guide to the Markets – U.S. Data are as of March 31, 2022.

J.P.Morgan ASSET MANAGEMENT

Source: JP Morgan - Guide to the Markets 3.31.2022

Value Versus Growth



Source: Koyfin

Did you spend your returns already!?

Equities

S&P 500 valuation measures

GTM | U.S. | 5

S&P 500 Index: Forward P/E ratio

Valuation measure	Description	Latest	25-year avg.*	Std. dev. Over-/under-Valued
P/E	Forward P/E	19.46x	16.83x	0.78
CAPE	Shiller's P/E	37.45x	27.98x	1.47
Div. Yield	Dividend yield	1.46%	2.00%	1.63
P/B	Price to book	4.07x	3.09x	1.22
P/CF	Price to cash flow	14.80x	11.12x	1.69
EY Spread	EY minus Baa yield	0.86%	0.19%	-0.34

Source: FactSet, FRB, Refinitiv Datastream, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.
Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since March 1997 and by FactSet since January 2022. Current next 12-months consensus earnings estimates are $233. Average P/E and standard deviations are calculated using 25 years of history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valued is calculated using the average and standard deviation over 25 years for each measure. *P/CF is a 20-year average due to cash flow availability.
Guide to the Markets – U.S. Data are as of March 31, 2022.

J.P.Morgan ASSET MANAGEMENT

Source: JP Morgan - Guide to the Markets 3.31.2022

Did you spend your returns already!?

Display: Stacked | Relative to zero | Relative to asset

Highlight: Asset class | Return

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Annualised
U.S. equities 32.6%	REITs 22.8%	Japan equities 9.9%	High yield 14.3%	China equities 54.3%	Cash 1.9%	U.S. equities 31.6%	China equities 29.7%	Commodities 38.5%	Commodities 27.1%	U.S. equities 14.6%
Japan equities 27.3%	U.S. equities 13.4%	U.S. equities 1.3%	Infrastructure 12.4%	EM equities 37.8%	DM gov. debt -0.4%	Infrastructure 27%	U.S. equities 21.4%	REITs 32.5%	Infrastructure 7.5%	REITs 8.6%
Europe equities 26%	Infrastructure 13%	Emerging debt 1.2%	U.S. equities 11.6%	Europe equities 26.2%	IG credit -3.5%	Europe equities 24.6%	EM equities 18.7%	U.S. equities 27%	Cash 0%	Infrastructure 7.8%
Infrastructure 15%	China equities 8.3%	REITs 0.6%	EM equities 11.6%	Japan equities 24.4%	High yield -4.1%	REITs 24.5%	Japan equities 14.9%	Europe equities 17%	REITs -3.6%	Europe equities 6.9%
High yield 7.3%	Emerging debt 5.5%	Cash 0.1%	Emerging debt 10.2%	U.S. equities 21.9%	U.S. equities -4.5%	China equities 23.7%	IG credit 10.1%	Infrastructure 11.9%	U.S. equities -5.2%	Japan equities 6.8%
China equities 4%	IG credit 2.5%	Europe equities -2.3%	Commodities 9.7%	Infrastructure 20.1%	Emerging debt -4.6%	Japan equities 20.1%	DM gov. debt 9.5%	Japan equities 2%	High yield -5.7%	High yield 4.9%
REITs 2.8%	Cash 0.1%	High yield -2.7%	REITs 6.9%	High yield 10.4%	REITs -4.8%	EM equities 18.9%	High yield 7%	High yield 1%	DM gov. debt -6.2%	China equities 4.8%
IG credit 1.8%	High yield 0%	DM gov. debt -3.3%	IG credit 6%	Emerging debt 9.3%	Infrastructure -9.5%	Emerging debt 14.4%	Europe equities 5.9%	Cash 0%	Japan equities -6.4%	EM equities 3.7%
Cash 0.1%	DM gov. debt -0.8%	IG credit -3.8%	Japan equities 2.7%	IG credit 9.3%	Commodities -10.7%	High yield 12.6%	Emerging debt 5.9%	Emerging debt -1.5%	EM equities -6.9%	Emerging debt 3.4%
EM equities -2.3%	EM equities -1.8%	China equities -7.6%	DM gov. debt 1.7%	REITs 8.6%	Japan equities -12.6%	IG credit 11.8%	Cash 0.7%	IG credit -2.1%	IG credit -7.1%	IG credit 3.1%
DM gov. debt -4.3%	Japan equities -3.7%	Infrastructure -11.5%	China equities 1.1%	DM gov. debt 7.3%	EM equities -14.2%	Commodities 11.8%	Infrastructure -5.8%	EM equities -2.2%	Europe equities -7.2%	Cash 0.6%
Commodities -5%	Europe equities -5.7%	EM equities -14.6%	Cash 0.4%	Commodities 1.7%	Europe equities -14.3%	DM gov. debt 5.6%	REITs -8.1%	DM gov. debt -6.6%	Emerging debt -9.3%	DM gov. debt 0.3%
Emerging debt -6.6%	Commodities -17.9%	Commodities -23.4%	Europe equities 0.2%	Cash 0.8%	China equities -18.7%	Cash 2.3%	Commodities -9.3%	China equities -21.6%	China equities -14.2%	Commodities 0.2%

Key: Equities | Bonds | Private markets, commodities

Source: Blackrock

Interest Rate Increases and Asset Returns

Prolonged and persistent periods of real rate increases favor some sub-asset classes

		Feb. 1, 1975–June 30, 1976	July 1, 1980–Aug. 31, 1981	Jan. 1, 1983–Sept. 30, 1984	Oct. 1, 1992–Dec. 31, 1994	Sept. 1, 2002–July 31, 2007	Aug. 1, 2014–April 30, 2019
Above-median relative returns on average	High-quality value	1	1	1	1	1	4
	International equities	—	—	2	1	1	1
	Emerging markets	—	—	—	4	1	2
	Value stocks	1	3	1	2	2	3
	U.S. equities	2	2	2	2	M	1
	Small-cap stocks	—	1	3	1	2	2
	High-quality growth	2	2	M	4	3	1
	Growth stocks	3	3	3	3	3	4
Below-median relative returns on average	High-yield bonds	—	—	4	2	4	M
	Home prices	4	M	3	3	4	2
	Commodities	M	4	4	M	3	3
	Low-quality growth	3	4	4	4	2	3
	U.S. aggregate bonds	4	4	2	3	4	4

Key: Top quartile = 1 | Second quartile = 2 | Median = M | Third quartile = 3 | Fourth quartile = 4

Sources: Vanguard calculations, based on data from the U.S. Treasury, the U.S. Bureau of Economic Analysis, Bloomberg; CRSP; Kenneth R. French's website, at mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html; Robert Shiller's website, at aida.wss.yale.edu/~shiller/data.htm; Standard & Poor's; MSCI; Dow Jones; and Russell, as of December 31, 2021. **Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.**

Source: Vanguard

75%ish: Negative to Positive

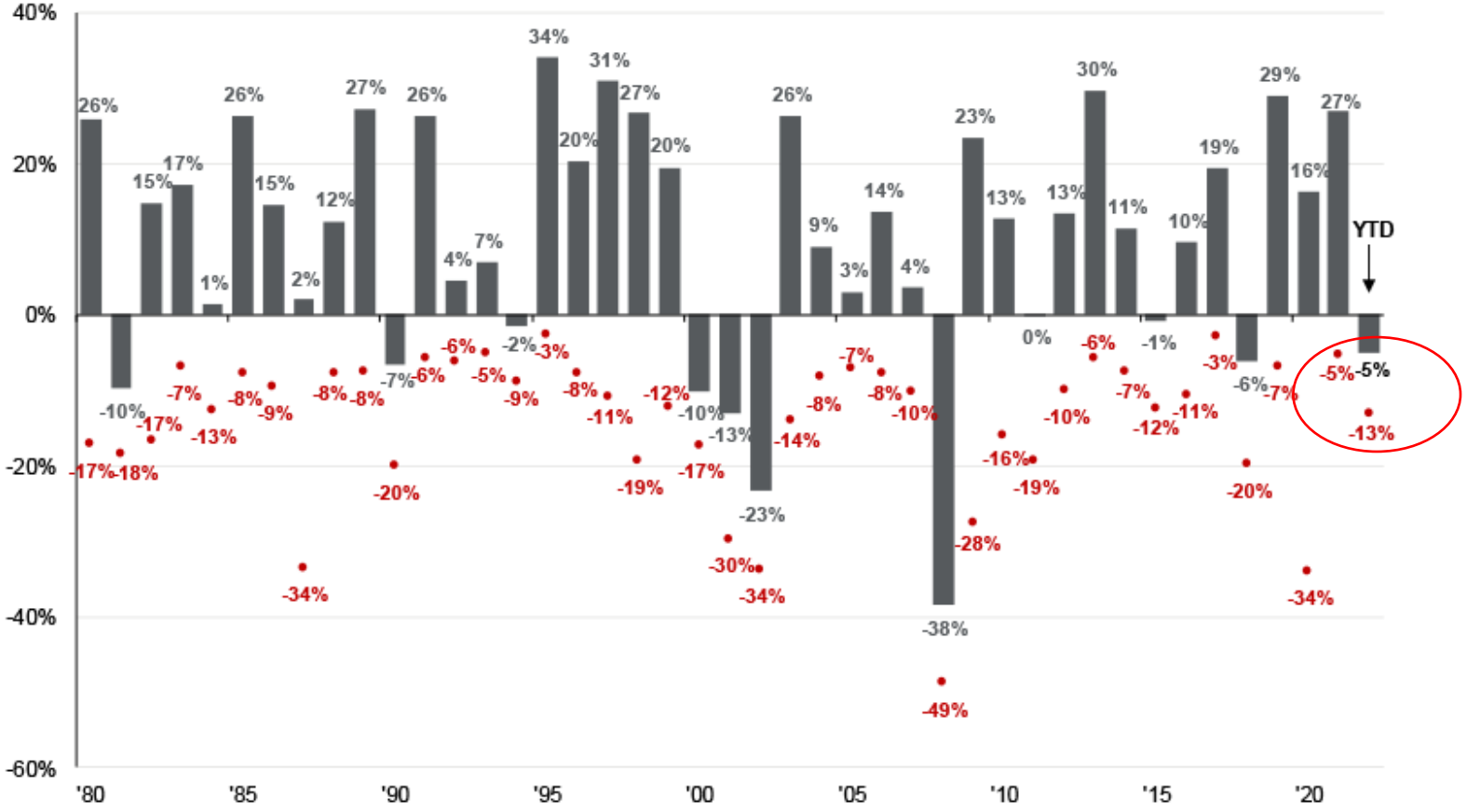
Equities

Annual returns and intra-year declines

GTM | U.S. | 16

S&P intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.0%, annual returns were positive in 32 of 42 years



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2021, over which time period the average annual return was 9.4%.
Guide to the Markets – U.S. Data are as of March 31, 2022.

J.P.Morgan ASSET MANAGEMENT

Source: JP Morgan - Guide to the Markets 3.31.2022