What If This Turns Out to Be a Terrible Time to Retire?

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March 2022

Presentation Roadmap

- Trends in retirement
- Why the *timing* of retirement is so impactful
- What should be on your dashboard
  - Equity valuations
  - Bond yields
  - Inflation
- Implications for retirement portfolios
  - Withdrawal rates/systems
  - Asset allocation/intra-asset allocation
  - Inflation protection
- Implications for non-portfolio decisions
  - Social Security filing
  - Annuities

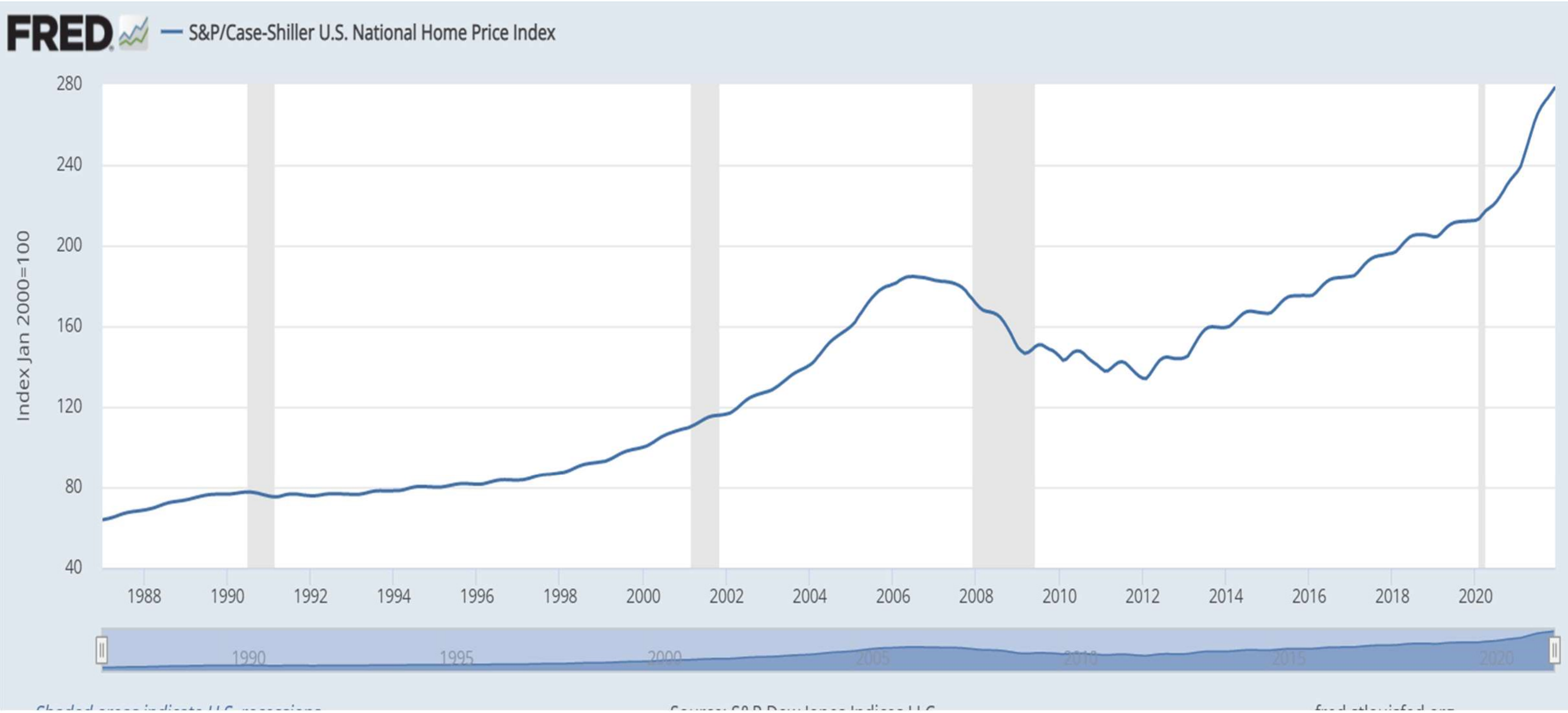
Pandemic has hastened retirements

Source: New York Times, Current Population Survey via IPUMS.

Recovery has lifted (almost) all boats

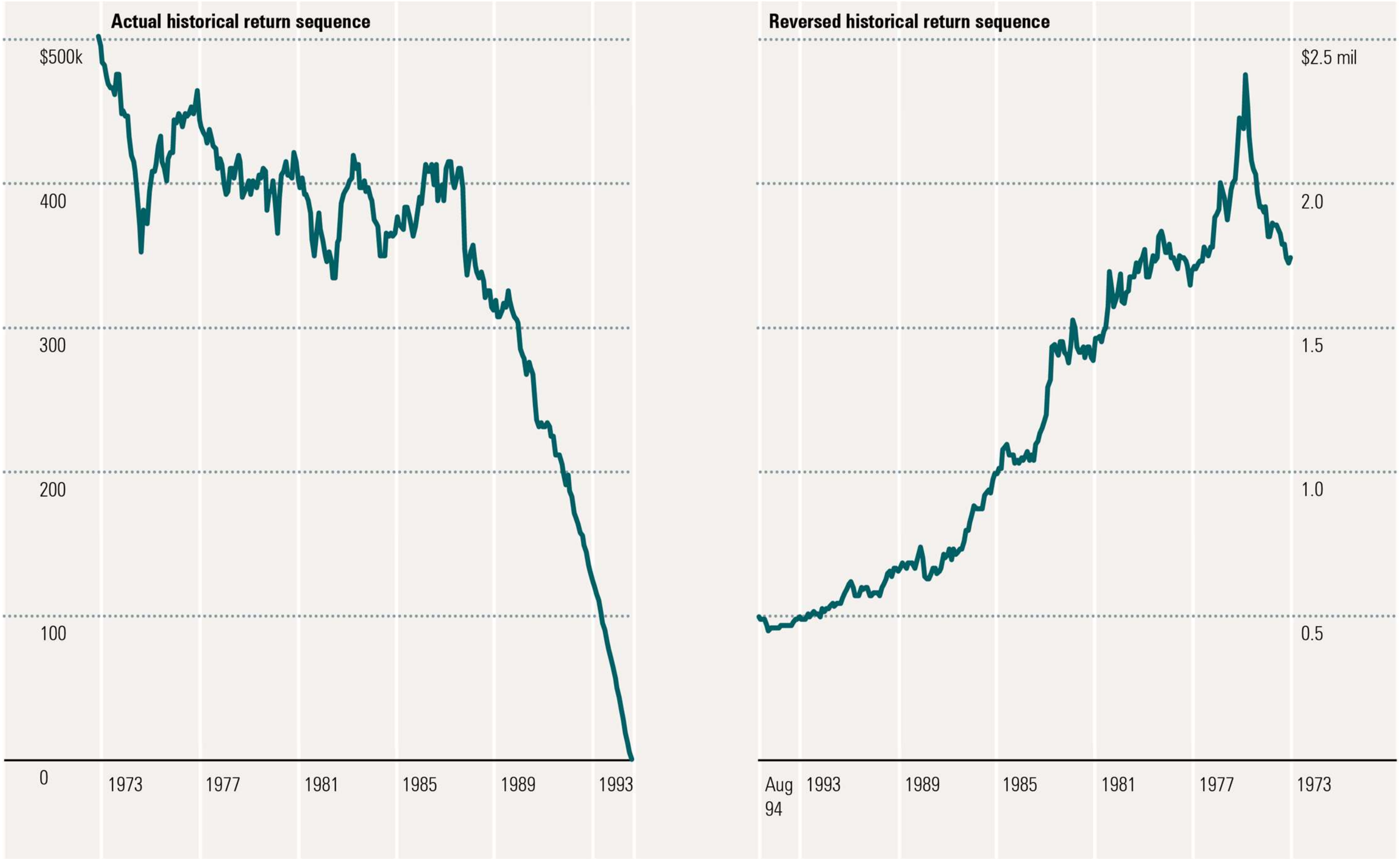
Source: Morningstar Markets Observer, 12/31/2

Home prices have gone along for the ride



Source: FRED.stlouisfed.org.

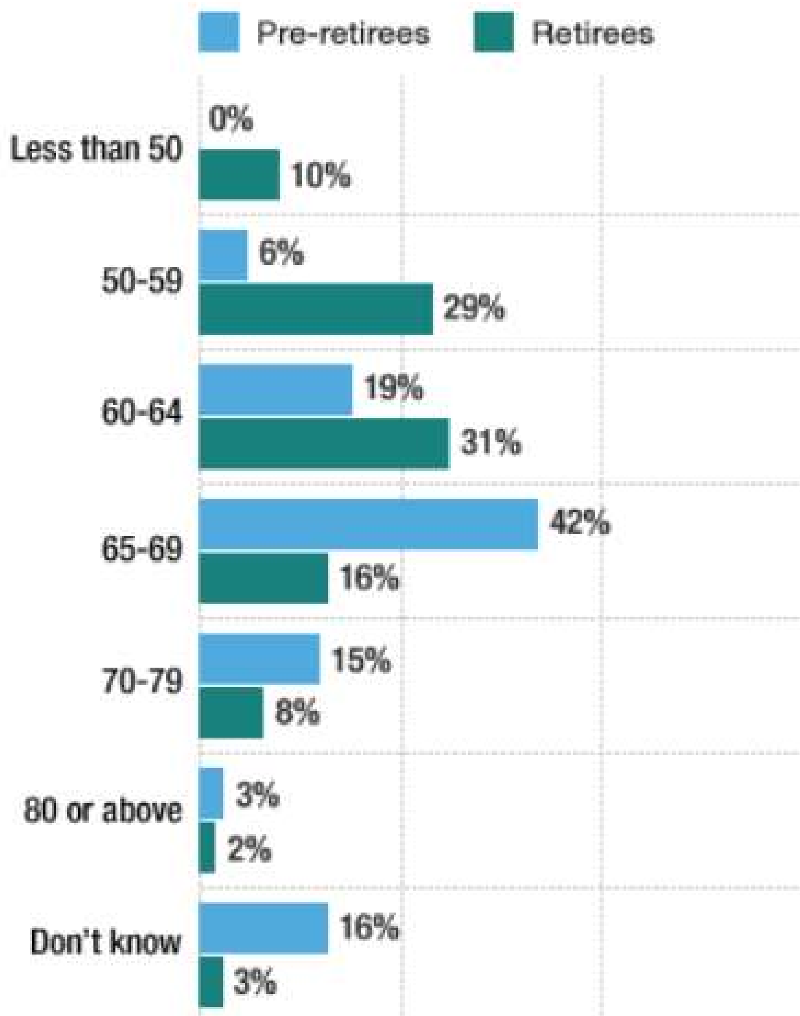
But timing of retirement matters



The importance of sequence of return risk

- Sequencing risk refers to the order in which your investment returns occur
  - Ideal sequence of return risk: Poor returns in accumulation (buy low) followed by strong returns in early years of retirement (sell high)
  - Negative sequence of return risk: Strong returns in accumulation (buy high) followed by weak returns in early years of retirement (sell low)
- Negative return sequencing affects can lead to 1 of 2 scenarios:
  - Retiree has an appropriate asset allocation *and* reduces withdrawals/standard of living to reduce risk of running out of money later in life
  - Retiree doesn’t reduce withdrawals and runs out of money later in life

Setting a retirement date is hard



Survey: NPR, The Robert Wood Johnson Foundation, Harvard School of Public Health

Working longer: An aspiration, not a plan

- Working longer isn't always a possibility due to factors such as:
  - Unexpected job loss/difficulty replacing a job
  - Difficulty doing a job that entails physical exertion
  - Health issues: Own, spouse's, parent's

- Risks for the viability of a retiree's income replacement following early retirement include:
  - No opportunity to make additional portfolio contributions
  - Fewer years for portfolio assets to compound prior to drawdown
  - Withdrawals over a time horizon that's greater than 25-30 years have to be very modest to ensure a high probability of sustainability
  - May reduce ability to benefit from delayed Social Security filing (past full retirement age)

3 key factors for your retirement dashboard

- Equity Valuations
- Bond Yields
- Inflation

Equity valuations: We've seen worse (but not by too much)

Source: Multpl.com, Shiller P/E, 3/14/22.

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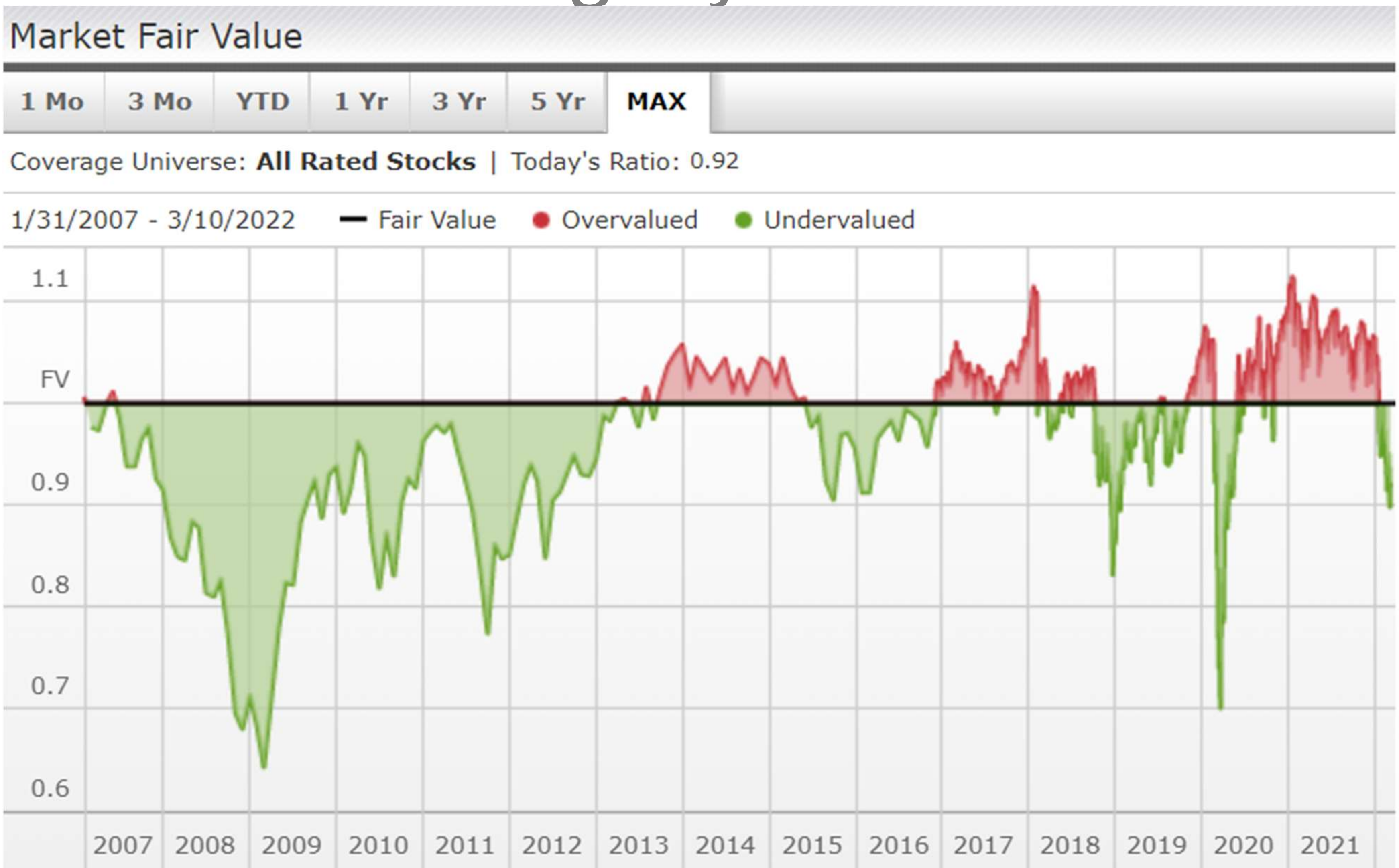
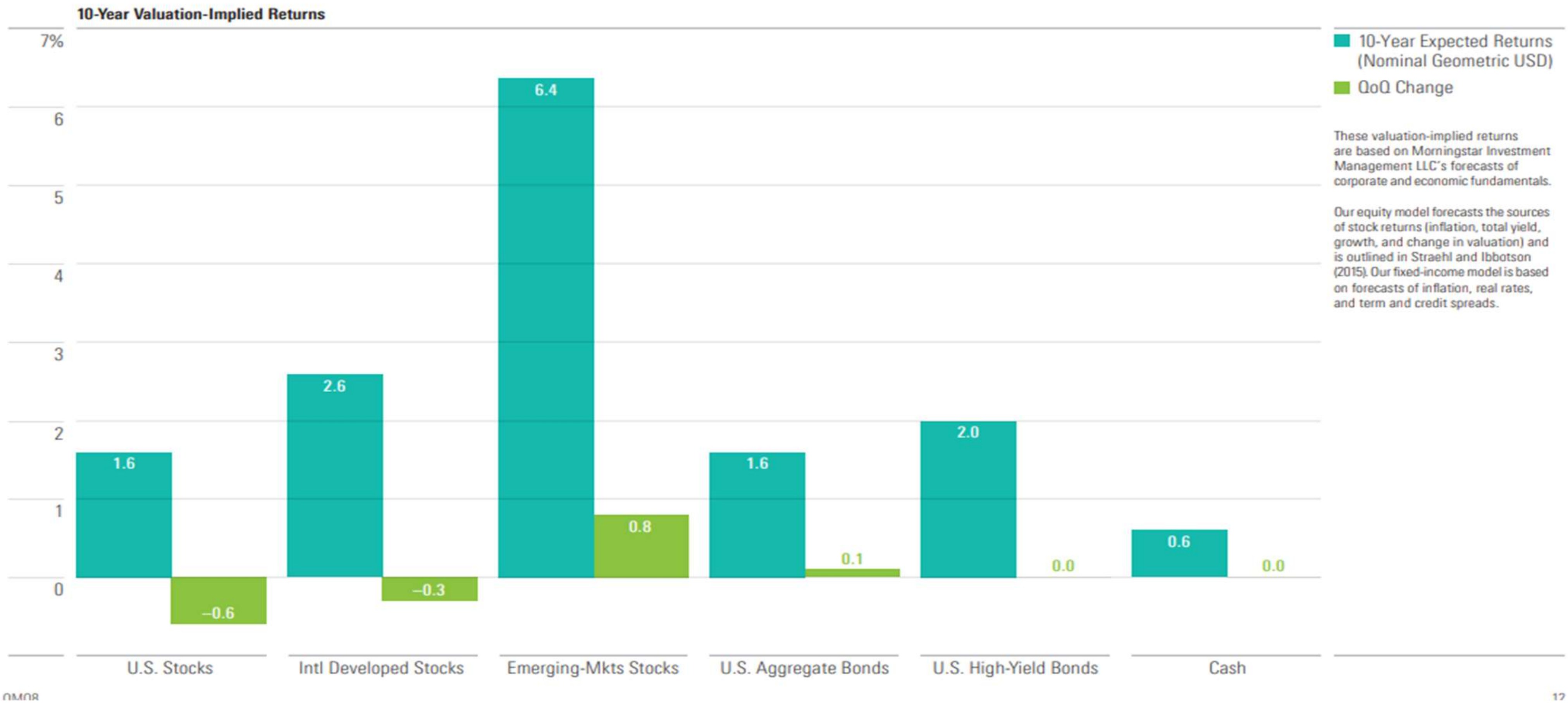
Morningstar equity analysts’ view: Stocks are slightly undervalued



Foreign stocks to outperform? 10-yr valuation-implied return



Source: Morningstar Markets Observer, 12/31/21.

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Other firms see better value overseas, too

BlackRock Investments Institute (September 2021)

- 6.7% nominal returns for U.S. equities over next 10 years
- 8.7% nominal returns for emerging markets large caps over next 10 years
- 9.2% nominal returns for European large caps over next 10 years

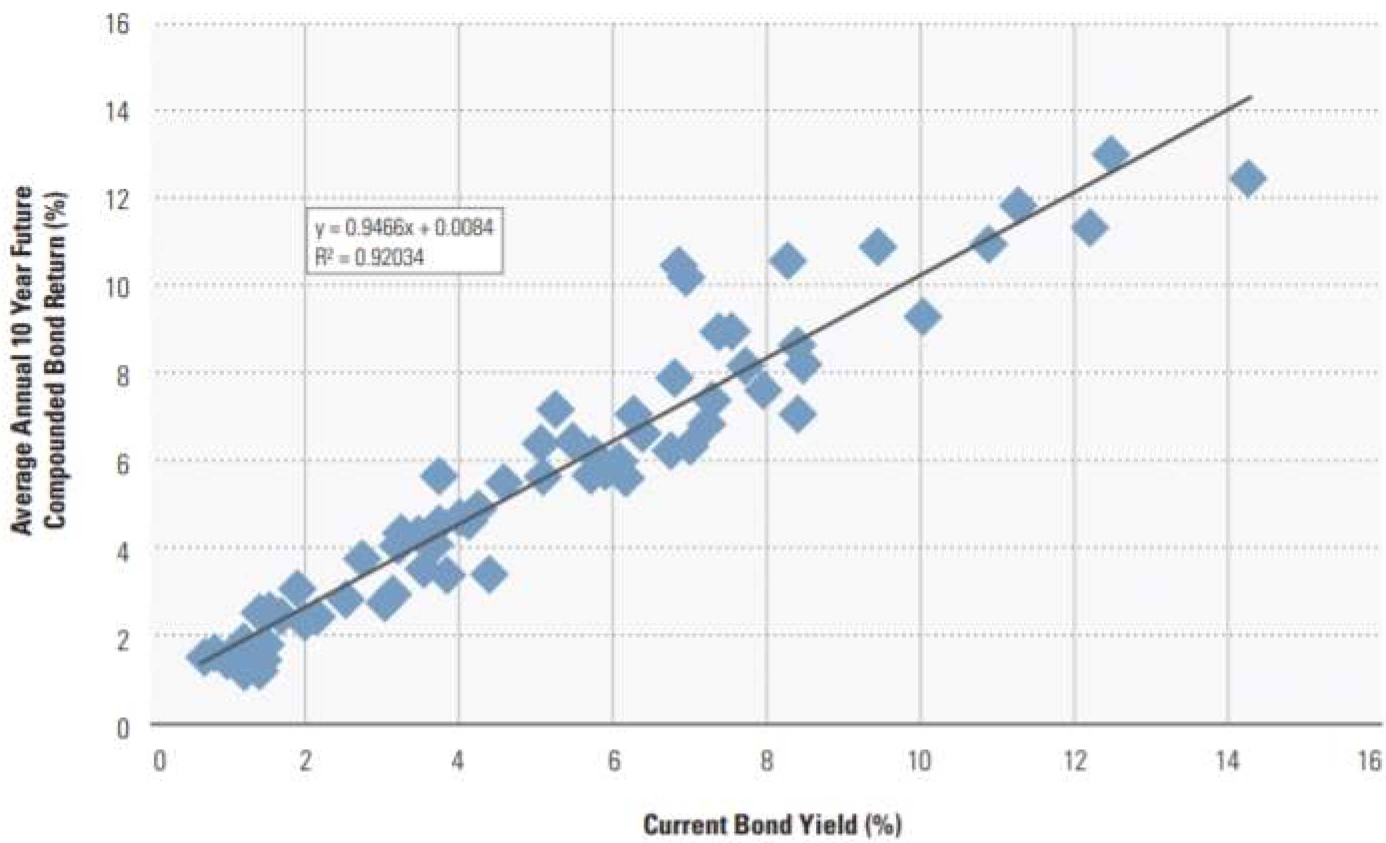
Research Affiliates (February 2022)

- 1.9% nominal returns for U.S. large caps over next 10 years
- 6.9% nominal returns for MSCI EAFE index over next 10 years
- 10% nominal returns for emerging markets equity over next 10 years

Vanguard (September 2021)

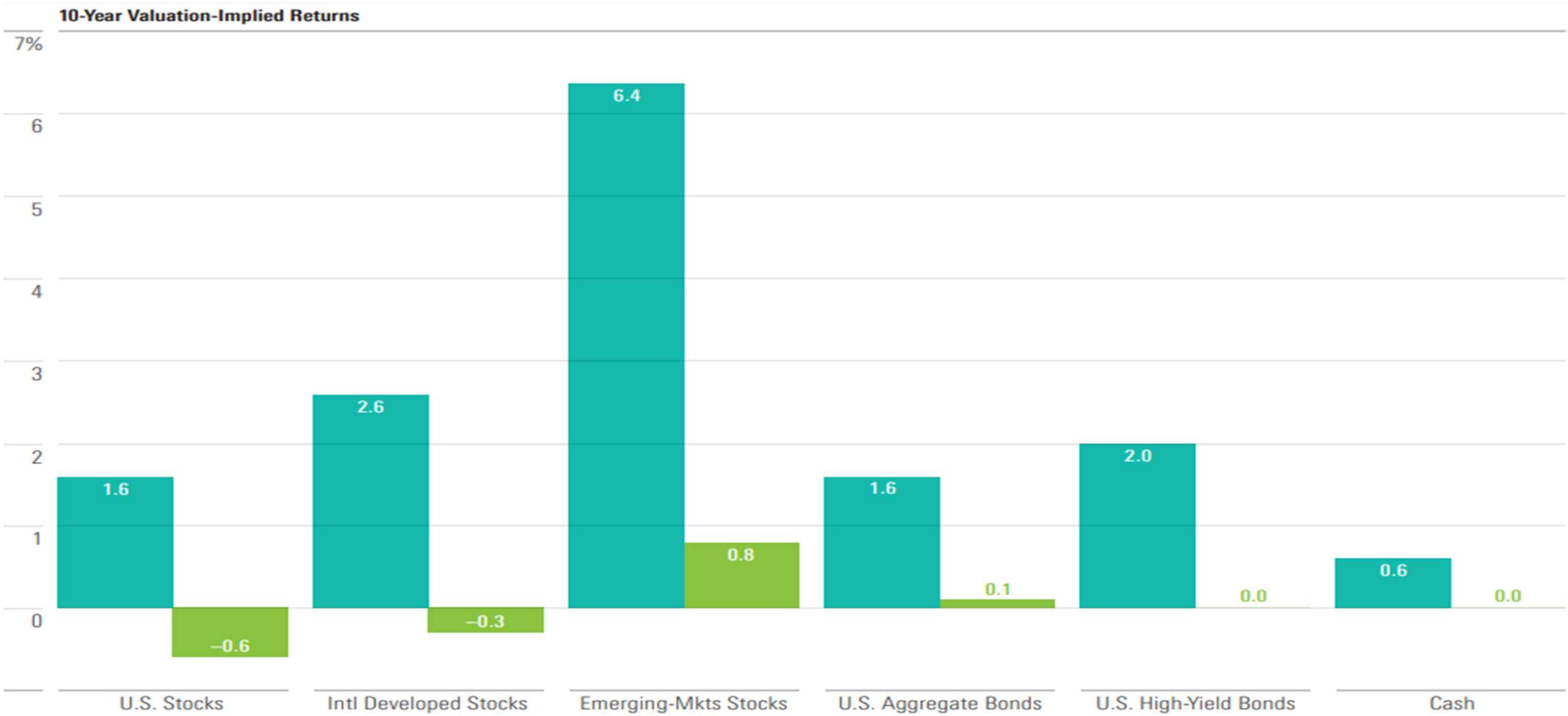
Prospects for fixed income more settled

Figure 2: Relationship Between Bond Yields and Future Average Annualized 10 Year Bond Return



Source: "Low Bond Yields and Safe Withdrawal Rates," Blanchett, Finke, Pfau.

High-quality bond and cash returns look shrimpy



Source: Morningstar Markets Observer, 12/31/21.

And not just to us

BlackRock Investments Institute (September 2021)

- 1.6% nominal returns for U.S. aggregate bond index over next 10 years
- 1.4% nominal returns for government bonds over next 10 years

Research Affiliates (February 2022)

- 2.6% nominal returns for U.S. aggregate bond index over next 10 years
- 3.5% nominal returns for intermediate Treasuries over next 10 years

Vanguard (September 2021)

- 1.9% nominal returns for U.S. bonds over next 10 years
- 1.7% nominal returns for U.S. Treasuries over next 10 years

Lower-quality bond yields have declined—
by a lot

Source: Souce: fred.stlouisfed.org.

High-yield prospects better, with more risk

BlackRock Investments Institute (September 2021)

- ➢3.4% nominal returns for U.S. high-yield bonds over next 10 years
- ➢3.9% nominal returns for USD emerg. mkts debt over next 10 years

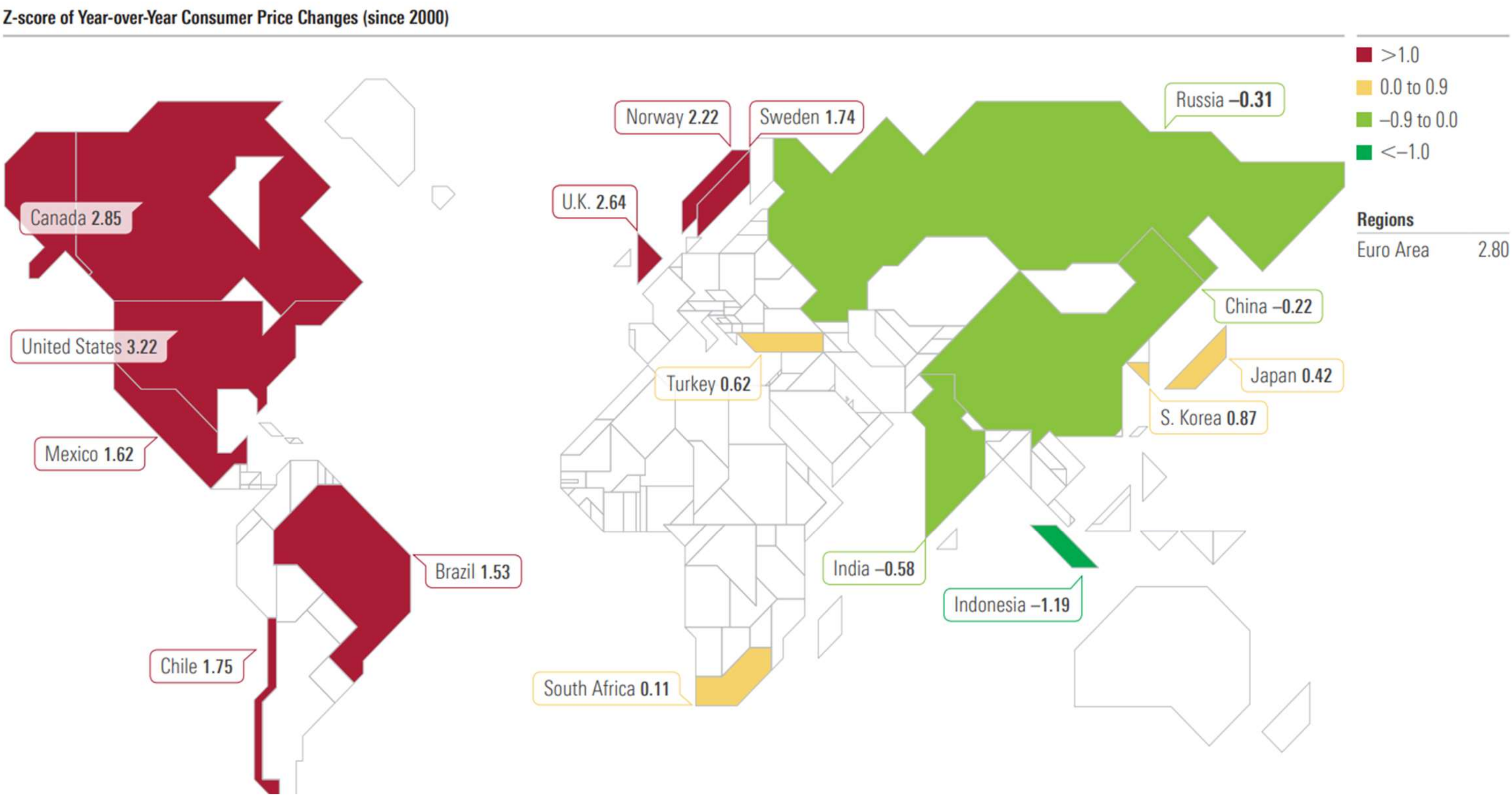
Research Affiliates (February 2022)

- ➢4.6% nominal returns for U.S. high yield over next 10 years
- ➢10% nominal returns for emerg. mkts bonds (local currency) over next 10 years

Vanguard (September 2021)

- ➢2.7% nominal returns for U.S. high-yield bonds over next 10 years
- ➢2.8% nominal returns for emerging markets sovereign

What about inflation?



Source: Morningstar Markets Observer, 12/31/21.

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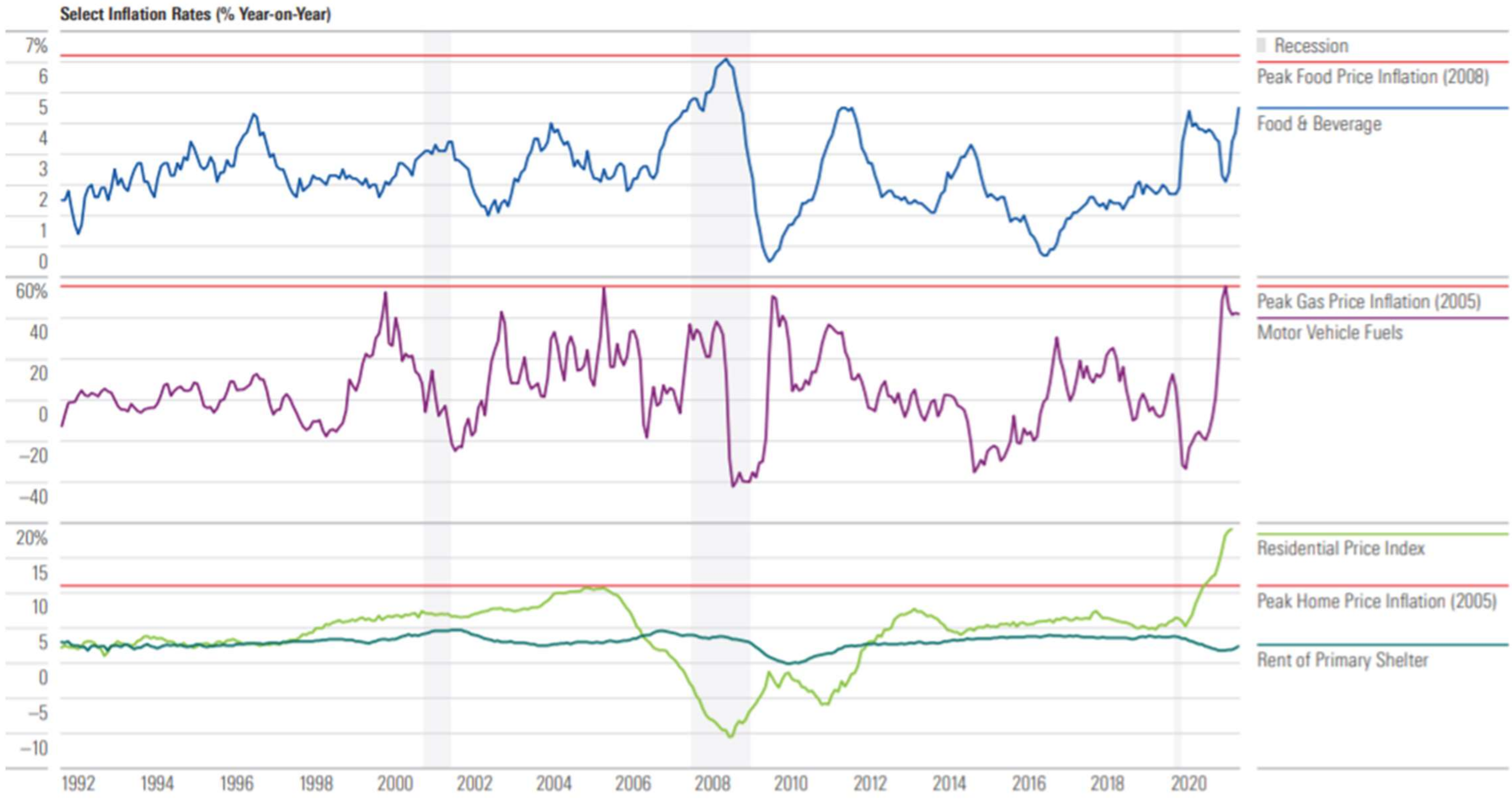
Inflation is highly variable by



Source: Morningstar Markets Observer, 9/30/21.

Older adults spend more on some categories, less on others

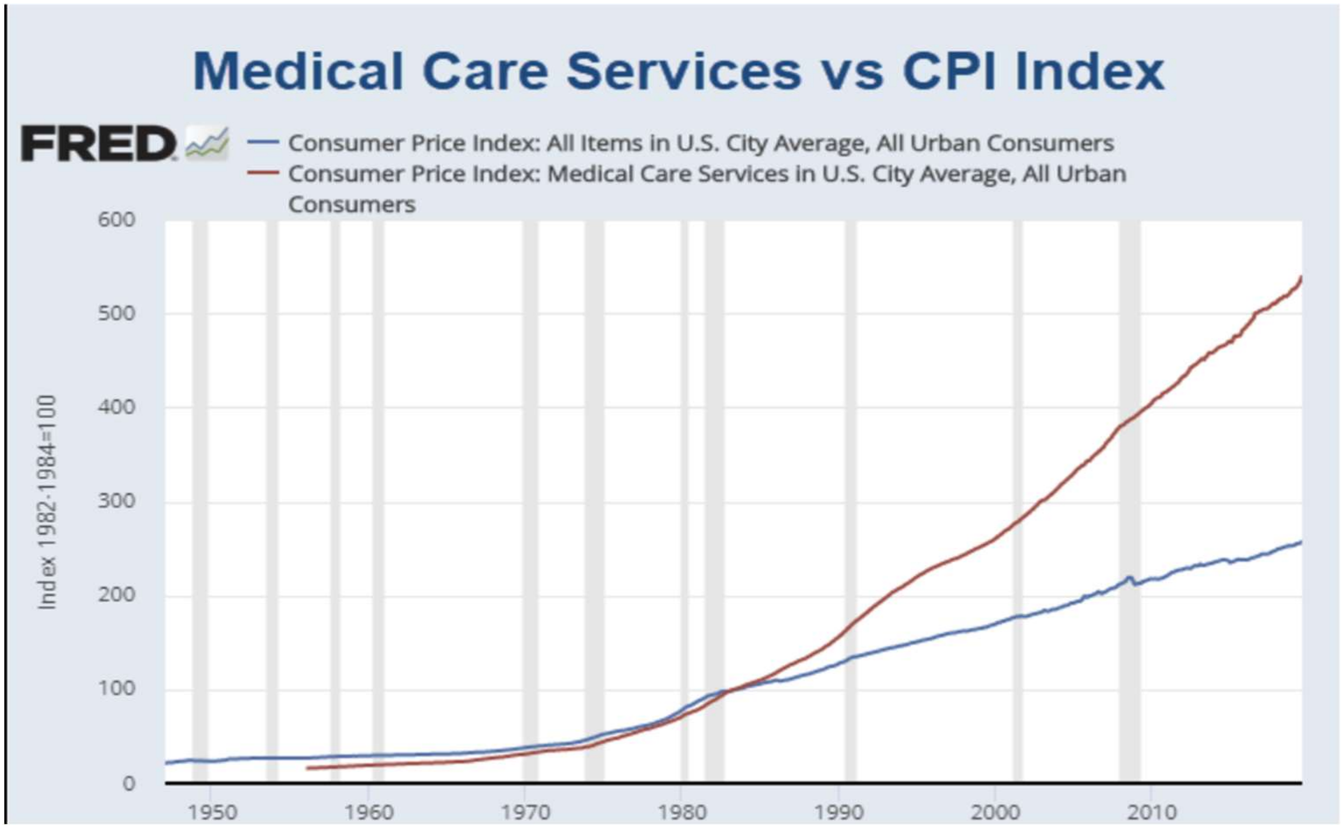
How Big a Deal Is Inflation? It Depends

Category	% of Spending CPI-E*	% of Spending CPI-U**
Food	13.52	15.16
Housing	46.57	42.39
Apparel	1.89	2.66
Transportation	12.97	15.16
Medical Care	12.20	8.87
Recreation/Leisure	5.44	5.80
Education/Communication	4.26	6.81
Other Goods	3.15	3.16

Source: Bureau of Labor Statistics.
*CPI-E: Consumer Price Index for the Elderly (Americans 62 and over), December 2020.
**CPI-U: Consumer Price Index for All Urban Consumers, December 2020.

CPI-E measures consumption for older adults; CPI-U measures consumption for all urban consumers.

Medical inflation historically > general inflation



Source: FRED.stlouisfed.org.

Higher spending on health-care has tended to drive a higher inflation rate for older adults.

Why inflation can be a big deal in retirement

- Inflation is a factor for all of us, but it's especially negative for retirees because:
  - The categories that older adults tend to spend more on may be inflating more quickly than the general inflation rate
  - The portion of their portfolios that they're withdrawing is not automatically inflation-adjusted (in contrast with our paychecks and Social Security)
  - Inflation is the natural enemy of anything with a fixed payout:
    - Nominal (non-inflation-adjusted) bonds
    - Fixed annuities
  - More conservative portfolios have lower return potential, so inflation takes a bigger bite in percentage terms
  - Inflation tends to be persistent. If it starts high in retirement, spending continues at that higher level.

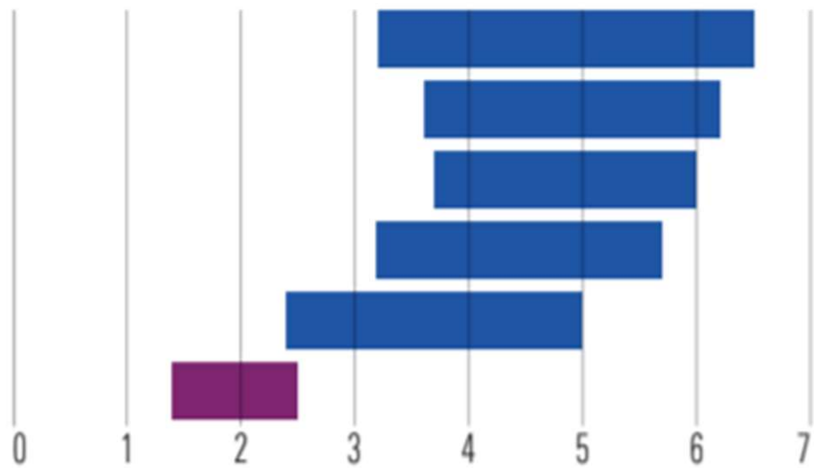
What are the implications for people who are getting close to/entering retirement?

- Withdrawal rates
- Asset allocation
- Intra-asset-class allocation
- Inflation protection
- Non-portfolio income sources
  - Social Security
  - Annuities

History is a starting point for withdrawal rates

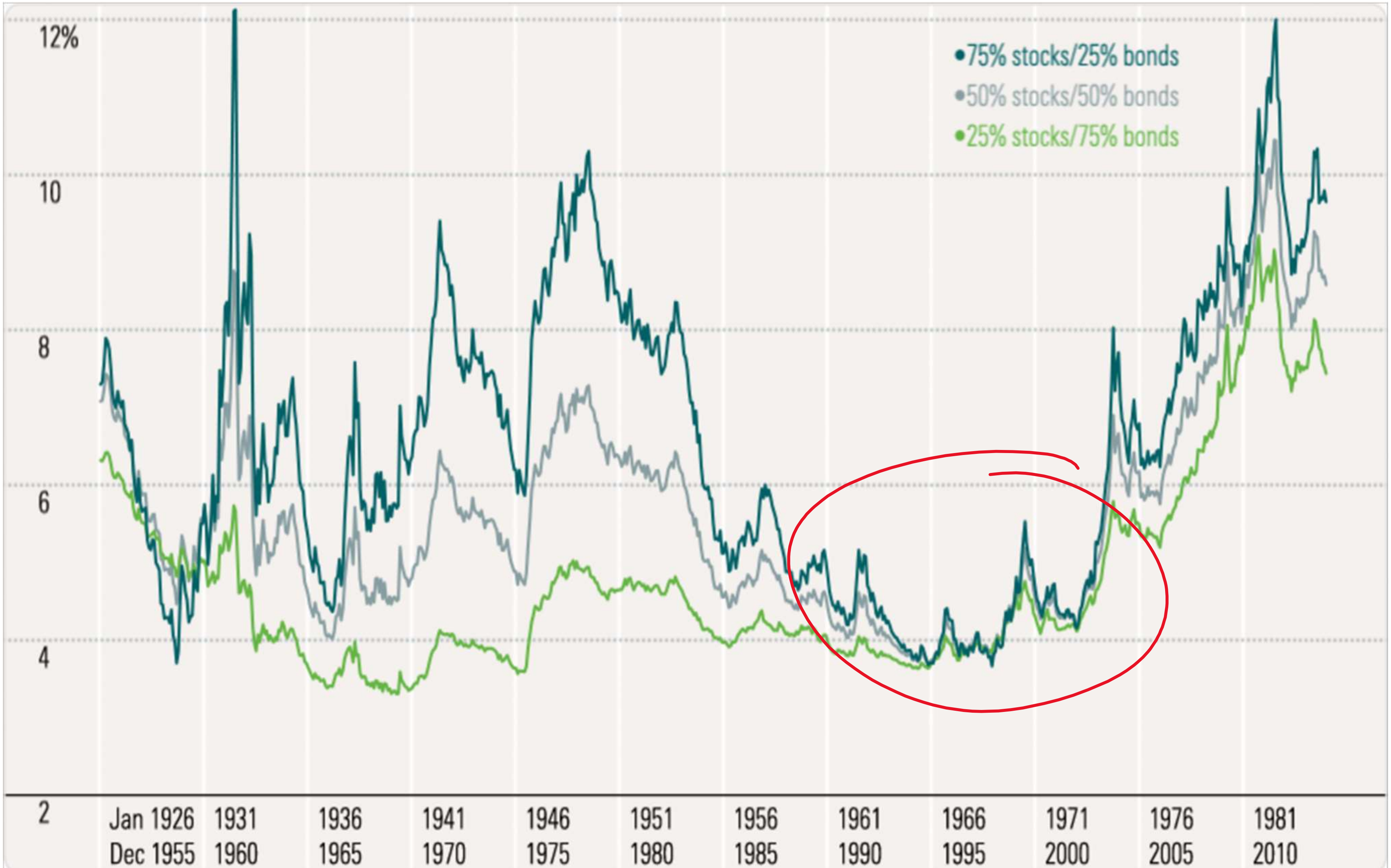
Exhibit 6 Highest and Lowest Sustainable Withdrawal Rates, by Asset Allocation (90% Success Rate, 30-Year Time Horizon)

	Sustainable Withdrawal Rates	
Asset Allocation	Lowest	Highest
100% Stocks	3.2	6.5
75% Stocks, 25% Bonds	3.6	6.2
50% Stocks, 50% Bonds	3.7	6.0
25% Stocks, 75% Bonds	3.2	5.7
100% Bonds	2.4	5.0
Mattress	**1.4**	**2.5**



Source: Morningstar Direct. Data as of 31/12/2019.

The "right" withdrawal rate? It



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For fixed real withdrawals, 4% is likely too high

Exhibit 9 Projected Withdrawal Rates, by Asset Allocation and Time Horizon

	Withdrawal Rate % on Time Horizon						
Equity Weighting %	10 Years	15 Years	20 Years	25 Years	30 Years	35 Years	40 Years
100	8.3	5.6	4.3	3.5	3.0	2.7	2.5
90	8.6	5.7	4.4	3.6	3.1	2.8	2.6
80	8.8	5.9	4.6	3.7	3.2	2.9	2.6
70	9.1	6.1	4.7	3.9	3.3	3.0	2.7
60	9.3	6.2	4.8	3.9	3.4	3.0	2.8
50	9.5	6.4	4.9	4.0	3.4	3.0	2.8
40	9.6	6.5	4.9	4.0	3.4	3.0	2.7
30	9.7	6.5	4.9	4.0	3.4	3.0	2.7
20	9.7	6.3	4.8	3.9	3.3	2.8	2.5
10	9.5	6.3	4.7	3.7	3.1	2.7	2.3
0	9.5	6.1	4.4	3.4	2.8	2.3	2.0

Source: Morningstar Direct. Data as of 31/12/2019.

Best practices for withdrawal rates in a low-return world

- Employ a fixed (and low) withdrawal starting withdrawal if targeting fixed real payments (“paycheck equivalent”)
- Employ a “ratcheting” strategy to tie portfolio withdrawals into portfolio returns (Jonathan Guyton “guardrails” strategy)
- Even a simple modification to fixed real withdrawals—e.g., forgoing inflation adjustment after losing year--helps

What about in-retirement asset allocation today?

- Retirees balancing competing issues
  - They need equities for growth, to support withdrawals and beat inflation
  - But *too much* in equities leaves the portfolio vulnerable to sequence risk

Does the rising-equity glidepath merit another look?

- In contrast with static or declining-equity glidepaths, rising-equity glidepath starts retirement conservatively
- Gives retiree protection against sequencing risk by enabling them to “spend through” safe assets
- “Reducing Risk with a Rising Equity Glidepath” (Kitces & Pfau, 2013)
- Behavioral issues could be a headwind

Bucket approach gets at the same idea

Bucket 1

For: Years 1 and 2

Holds: Cash

Goal: Fund Near-Term Living Expenses

Bucket 2

For: Years 3-10

Holds: Bonds, Balanced Funds

Goal: Income production, stability, inflation protection

Bucket 3

For: Years 11 and beyond

Holds: Stock

Goal: Growth

Sample in-retirement bucket portfolio

Retirees Spending $60,000/Year from Portfolio

Bucket 1: Liquidity Portfolio for Years 1 and 2: $120,000

$120,000 in CDs, money market accounts/funds, other cash

Bucket 2: Intermediate Portfolio for Years 3-10: $480,000

$100,000 in Vanguard Short-Term Bond ETF BSV

$150,000 in Vanguard Short-Term Inflation-Protected Securities VTIP

$230,000 in iShares Core US Bond Market IUSB

Bucket 3: Growth Portfolio for Years 11 and Beyond: $900,000

$350,000 in Vanguard Dividend Appreciation VIG

$225,000 in Vanguard Total Stock Market Index VTI

$250,000 in Vanguard FTSE All-World ex-US VEU

$75,000 in Vanguard High-Yield Corporate VWEHX

But buckets 1 & 2 carry a substantial opportunity cost

- Other “buffer” assets could reduce need to maintain ongoing stake in low-returning assets (Wade Pfau)
  - Standby reverse mortgage
  - Life insurance cash value
  - Annuities
- Alternatively, “bucketed” retiree could simply not fully replenish buckets 1 and 2 once depleted
- Retirees with tighter plans might shrink buckets 1 and 2 as a % of total portfolio (5 years v. 10?)

Don't forget to bring inflation protection!

- At the portfolio level, consider:
  - Treasury Inflation-Protected Securities, I-Bonds
  - Stocks: Best long-run shot at beating inflation
  - REITS, commodities, bank loans, high-yield bonds
- At the plan level, consider
  - Delaying Social Security: Enhanced return is also inflation-adjusted
  - Factoring inflation into your portfolio-spending plan

What does this mean for non-portfolio income sources?

- Lower yields make delayed Social Security filing even smarter
  - Increase benefits by 76%-77% by delaying from 62-70
  - 7.4% annual increase
- Open Social Security: Terrific free tool for testing various Social Security strategies

Annuities affected by low yields, but still have benefits

- Annuity payouts affected by interest-rate climate
- BUT benefit from longevity-risk pooling unchanged
- Along with Social Security, can be an effective way to supply fixed expenses, reduce portfolio withdrawals
  - Reduces withdrawal rate
  - Reduces need for safe investment assets
  - Reduces longevity risk
- I’m biased toward the vanilla annuity types
  - Single-premium immediate annuities
  - Deferred income annuities (QLACs)

Questions/comments

- Email: Christine.benz@Morningstar.com
- Twitter: @Christine_benz
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- Weekly podcast I co-host w/Jeff Ptak: “The Long View”
- Our research on withdrawal rates: https://www.morningstar.com/content/dam/marketing/shared/pdfs/Research/state-of-retirement-income.pdf