

Valuations Matter. Just Not the Way Most People Use Them.

Starting valuations, sequence risk and the case for Defined Duration® over market timing

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40.7x

Shiller CAPE in early October 2026. Higher than about 99% of months since 1881. Only the 1999 to 2000 bubble and this past August were higher.

0.04 vs 0.38

R² of CAPE vs the next 1 year of returns vs the next 20 years. Valuation says almost nothing about next year.

27% vs 0%

Odds of a negative real decade starting from the richest vs the cheapest CAPE quintile.

2.95%

10 year TIPS real yield, the highest since November 2008. A known real return if held to maturity.

THE SHORT VERSION

- The valuation scatter charts making the rounds are real, but they oversell the precision. Since 1987 there are fewer than four non-overlapping 10 year windows. Run the same test back to 1881 and the R² falls from roughly 0.8 to about 0.26.
- Still, the relationship shows up in every sample we tried. In the full history it gets stronger the longer you hold. That's what you'd expect if valuation is a **duration** signal, not a timing signal.
- High valuations don't make stocks more volatile year to year. They shrink the cushion. That shows up as a fatter left tail over the following decade, which is exactly where sequence risk lives.
- Using valuation to jump in and out of the market has been a reliable way to fall behind. The better move is to price your liabilities, fund the near and intermediate buckets with assets that have known cash flows, and let stocks do their job over their actual duration.

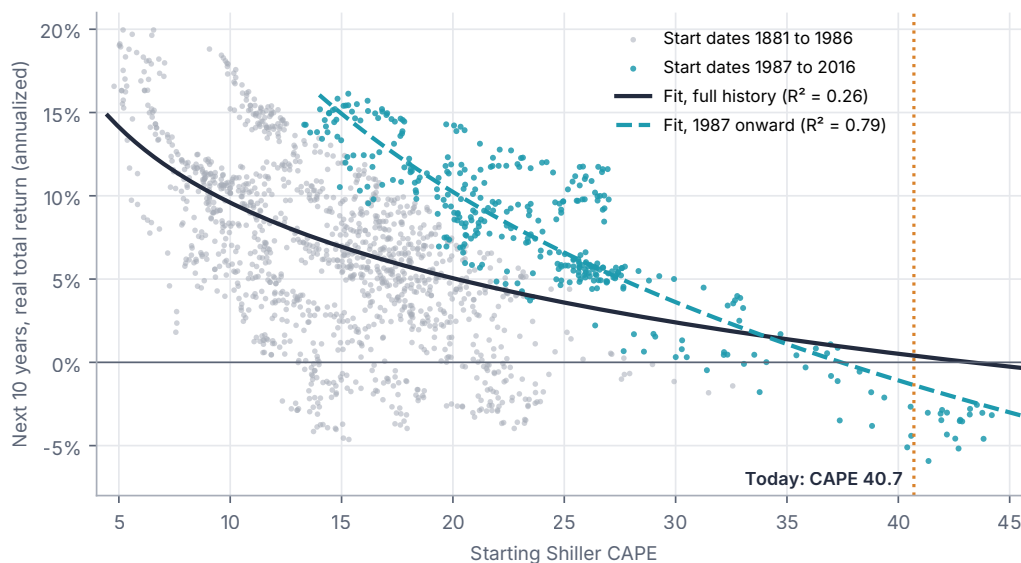
01 The small sample problem is real

Let's start with the obvious critique because it's correct. A widely shared sell side chart shows normalized trailing P/E explaining 81% of the variation in subsequent 10 year S&P 500 returns since 1987, and it implies about negative 3% a year from here. It looks like a law of physics. It isn't. Each dot is a monthly start date, but neighboring dots share 119 of their 120 months of returns. From 1987 through today you've only had a little under four truly independent decades. A handful of real data points with about 350 dots stacked on top of them will always look tidy.

So we reran the test on Robert Shiller's data going back to 1881, using CAPE and real total returns. Same shape, much messier fit. Our post 1987 sample produces an R² of 0.79, close to what that chart shows. The full history drops to 0.26. Both lines slope down. One is a lot more confident than it should be.

Chart 1. Starting CAPE vs the next 10 years of real S&P 500 returns

Monthly start dates, January 1881 through October 2016 (the last start with a full 10 years of data). Log fit.



Source: Robert Shiller, shillerdata.com (ie_data.xls, data through early October 2026). Discipline Funds calculations.

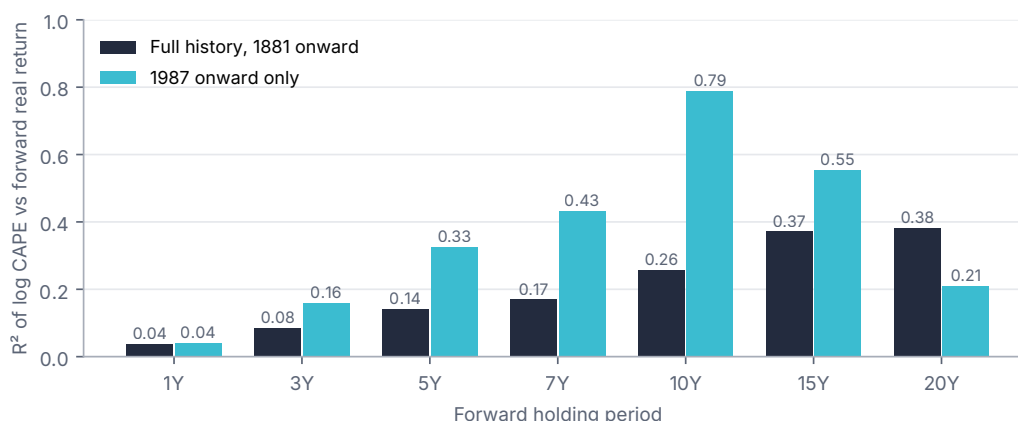
So where does today land? The full history fit points to roughly 0% real over the next decade. The post 1987 fit says about negative 1.4% real. The full history model typically misses by about 4.4 percentage points a year, so the honest read is somewhere between a mediocre decade and a lousy one, with a wide band around it. The only historical neighbors at today's level are the 1999 to 2000 start dates. That's one episode. Take it seriously, but don't read too much into it.

02 Valuation is a duration signal

This is the part that matters most for how we build portfolios. If you look at how much of the forward return valuation explains as you stretch the holding period, it goes from basically nothing to quite a lot. At one year, CAPE explains about 4% of returns. At 10 years it's 26% and at 20 years it's 38%. The post 1987 sample shows the same build up to 10 years and then fades, which is mostly a sign of how few long windows that sample has.

Chart 2. How much CAPE explains depends on how long you hold

R^2 of log CAPE vs subsequent annualized real total return, by holding period.



Source: Robert Shiller, shillerdata.com. Discipline Funds calculations. Overlapping monthly windows. Longer horizons have fewer independent observations, so the 15 and 20 year bars rest on very few true data points.

This is what you'd expect from a long duration asset. A stock is a claim on cash flows stretching out for decades. In any given year the price is driven by sentiment, rates and noise. Over the life of those cash flows, the price you paid has to square up with what the business actually earns. When you pay about 41 times cyclically adjusted earnings, the cash flows have to work harder and for longer to justify the price. Valuation doesn't tell you *when* that happens. It tells you the odds are tilted and roughly by how much.

This isn't just a CAPE thing either. We tested four common valuation measures on the same 1881 onward data. They all look useless at one year and meaningfully better at ten.

Valuation measure (Shiller data, 1881 onward)	1Y R^2	10Y R^2	Where it stands now
Excess CAPE yield (CAPE earnings yield minus Shiller's real 10Y rate)	0.05	0.33	0.6%, the lowest since March 2002
CAPE (log)	0.04	0.26	40.7x, 99th percentile
Trailing P/E (log)	0.01	0.15	Sell side estimates put normalized trailing P/E near 31x
Dividend yield	0.03	0.10	Not used for current read

The excess CAPE yield is the most useful of the bunch because it accounts for the alternative. On Shiller's own numbers it's down to about 0.6%. Only about 13% of months since 1881 have been lower, and it hasn't been this low since early 2002. Swap in the actual 10 year TIPS yield of 2.95% and it goes negative. The CAPE earnings yield is about 2.5%, so you can now get more real yield from government bonds than the stock market's earnings yield offers. That doesn't mean stocks fall. It means the market isn't paying you much to take the risk, and that changes how you should fund liabilities.

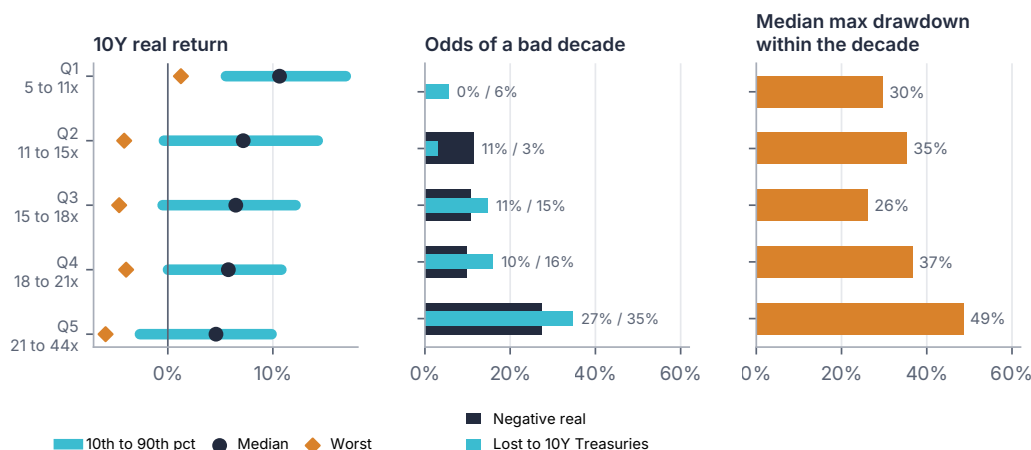
03 High expectations, thin cushion

A high valuation is just a high expectation baked into the price. When expectations are high, the asset has less room to disappoint before the investor feels it. That's sequence risk in plain English.

The way it shows up surprised us a little. It does *not* show up as higher year to year volatility. One year volatility was actually a bit lower in the richest quintile (about 17%) than the cheapest (about 23%). The difference is in the cumulative outcome. Same noise, lower center, so more of the distribution falls below zero.

Chart 3. What a decade looked like from each valuation starting point

S&P 500 real total returns by starting CAPE quintile, monthly start dates 1881 to 2016.



Source: Robert Shiller, shillerdata.com. Discipline Funds calculations. "Lost to 10Y Treasuries" compares stock real total return to Shiller's 10Y Treasury real total return over the same decade. Drawdown is peak to trough in real total return terms within each 10 year window.

From the cheapest quintile, there wasn't a single negative real decade in roughly 135 years of start dates. From the richest, it happened 27% of the time, and stocks lost to plain 10 year Treasuries 35% of the time. The median investor buying in the top quintile also sat through a roughly 49% drawdown at some point in the decade, versus 26% to 37% for the other groups. If any of that money was earmarked for a liability in the next decade, that's the number to worry about.

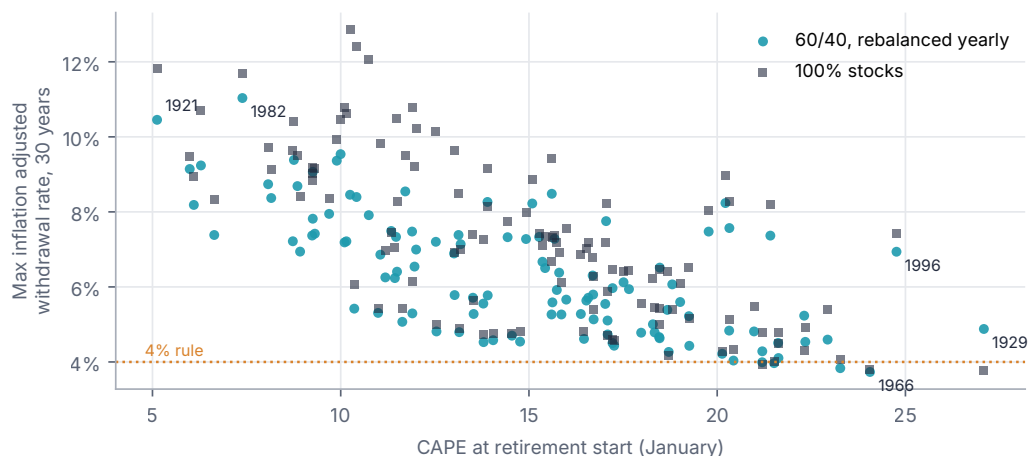
The top quintile spans 21x to 44x, so today sits at the far end of an already expensive bucket. Narrow it to a CAPE of 30 or higher and the median real 10 year return was negative 1.1%, with 60% of start dates losing money in real terms. But that's only 57 start dates with a full 10 years behind them, all from 1929 and 1997 through 2002. Two episodes. It points the right way, but it's thin.

04 What it means for someone spending the money

Retirees feel this most because they're selling assets on a schedule. We ran every 30 year retirement in the Shiller data and solved for the highest inflation adjusted withdrawal rate that would have lasted exactly 30 years. Starting valuation and sustainable spending have a correlation of about negative 0.7.

Chart 4. Starting CAPE vs the max sustainable 30 year withdrawal rate

Retirements starting each January, 1881 to 1996. Withdrawals at the start of each year, inflation adjusted.



Source: Robert Shiller, shillerdata.com. Discipline Funds calculations. 60/40 uses Shiller's S&P 500 and 10Y Treasury real total returns, rebalanced annually. No fees or taxes. Retirements starting after 1996 have not completed 30 years.

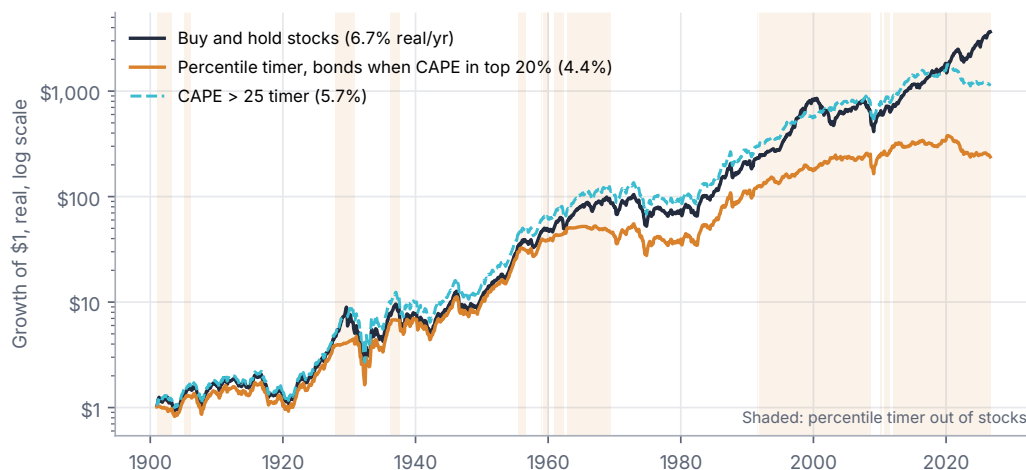
Of the 19 retirements that started with CAPE under 10, the worst 60/40 outcome still supported a 6.9% withdrawal. Of the 19 that started above 20, the median was about 4.5% and the worst was 3.7% (1966). To be fair to the other side, the four most recent starts above 20, 1993 through 1996, all came in between 6.9% and 8.2% because they caught the late 1990s melt-up early. High valuations tilt the odds. They don't guarantee a bad outcome. And the 1997 to 2002 retirements, which started at CAPE readings from the high 20s to 44, haven't finished their 30 years yet. We don't know yet how the worst starting points play out.

05 Why valuation is a lousy timing tool

If valuation predicts long term returns, why not just get out when it's high? Because "high" can last for decades and the market doesn't owe you a reversion on your schedule. We tested two simple rules from 1901 onward. The percentile timer moves to 10 year Treasuries whenever CAPE is in the top 20% of its own history up to that point, so there's no hindsight in the threshold. The second rule moves to Treasuries whenever CAPE is above 25. That 25 was picked with the benefit of hindsight, which should make it look better than any real investor could have done.

Chart 5. Buy and hold vs CAPE based timing, 1901 to 2026

Growth of \$1 in real terms. Each month's position is set by the prior month's CAPE and switches between the S&P 500 and 10Y Treasuries.



Source: Robert Shiller, shillerdata.com. Discipline Funds calculations. Hypothetical back tested results. No fees, taxes or trading costs. Data through early October 2026.

Strategy, January 1901 to early October 2026	Real CAGR	What happened
Buy and hold S&P 500	6.7%	\$1 grew to about \$3,600 in real terms
CAPE above 25 timer	5.7%	Ahead of buy and hold in 86% of months from 1935 on and still about 35% ahead in early 2016. After a brief recovery in 2020 it finished about 69% behind.
Percentile timer (top 20% of history)	4.4%	Out of stocks 88% of the time since 1990. From 1990 on, \$1 grew to \$2.18 vs \$17.61 for buy and hold.

The CAPE above 25 rule is the cautionary tale. It looked brilliant for 80 years because it sidestepped 1929 and the dot com bust. Then CAPE sat above 25 for nearly all of the last decade and it gave all of that back and a lot more. That's the problem with a timing signal built on a long duration variable. You can be right about where it ends up and still get killed waiting.

06 The Defined Duration® answer: price the liabilities, not the market

So valuations matter, but not as a buy or sell button. The right way to use them is to ask a more practical question. Given what the stock market is priced to deliver, how much of a client's near and intermediate liabilities should depend on it? When expectations are low and the cushion is thin, the answer is less, not zero. You adjust the time horizon, not whether you're in or out.

0 to 3Y

Defined Duration of 0 to 3

Valuation impact: none

Cash flows are known. Funded with T-Bills and short TIPS. Stock valuations don't matter here and that's the point.

3 to 7Y

Defined Duration of 3 to 7

Valuation impact: low

Mostly government bonds with a small stock sleeve. 10 year real yields are the highest since late 2008.

7 to 15Y

Defined Duration of 7 to 15

Valuation impact: high

Where rich valuations bite. The richest quintile had 27% odds of a negative real decade. Blend, don't bet the bucket on stocks.

15Y+

Defined Duration of 15+

Valuation impact: diluted by time

The bucket with enough duration to absorb a valuation reset. Diversify the starting point. The equal weighted S&P 500 is priced well below the cap weighted index.

In practice, this works out to a few simple rules.

1. Liabilities inside 10 years shouldn't be funded with expensive stocks. At today's valuations, the historical base rate says there's a real chance stocks don't beat bonds over the next decade. That's fine for money with a 20 year horizon. It's not fine for a house down payment or the first decade of retirement spending.

2. Use the bond market to lock in what stocks won't promise. A 10 year TIPS yield of 2.95% is a known real return if you hold to maturity, before taxes. The full history CAPE model implies roughly 0% real for stocks over the same period, with a wide band. When the bond market offers a real return that compares this well, you take it for the liabilities it can cover. That's valuation informing allocation without any timing involved.

3. Diversify beyond asset classes by diversifying across time. By holding different instruments with different temporal targets you reduce the guesswork in trying to time the market because time becomes the whole strategy. This avoids the all in and all out type of temptations that make portfolios look like gambling instead of the planning based liability matching process it should be.

4. Diversify the starting valuation, not just the holdings. Recent sell side estimates put the equal weighted S&P 500 at about 24x normalized earnings vs about 31x for the cap weighted index. The valuation risk is concentrated in the biggest names, so the long bucket shouldn't be.

07 Conclusion

Starting valuations matter. In every sample and every metric we tested, higher prices meant lower returns over the following decade, and in the full history the left tail got fatter too. The effect is weak over one year and much stronger over ten, which is exactly why it belongs in a time horizon based framework rather than a market timing model. High valuations are high expectations, and high expectations mean more sequence risk for anyone who needs the money before those expectations get tested. The fix isn't to sell everything and wait. It's to match the money you'll need soon with assets whose cash flows you can count on, and give the stocks time, because time is what makes the valuation risk manageable.

Data, methodology and sources

Robert Shiller. U.S. Stock Markets 1871 to Present and CAPE Ratio (ie_data.xls), downloaded October 7, 2026 from <https://shillerdata.com> (linked from <http://www.econ.yale.edu/~shiller/data.htm>). Monthly S&P Composite price, dividends, earnings, CPI, real total return price index, CAPE, excess CAPE yield and real 10Y Treasury total return index, January 1871 through October 2026. The October 2026 entry uses the October 2 close and is the source of the current CAPE (40.7) and excess CAPE yield (0.6%). Third party sites such as multpl.com show a slightly higher current CAPE (41.9 on October 6, 2026) due to differences in earnings and inflation estimates.

Real and nominal yields. Federal Reserve Bank of St. Louis, FRED series DFII10 (10 Year TIPS, 2.95%) and DGS10 (10 Year Treasury, 5.31%), as of October 5, 2026. DFII10 last reached 2.95% or higher on November 24, 2008.

Normalized trailing P/E figures. Sell side equity strategy research comparing S&P 500 normalized trailing P/E to subsequent 10 year returns since 1987, data as of September 30, 2026. These are third party estimates that Discipline Funds has not independently verified.

Methods. Forward returns are annualized real total returns from Shiller's real total return price index on monthly start dates. R^2 values come from univariate OLS regressions of forward returns on log CAPE (or the listed measure) over the same 1881 onward sample, using overlapping monthly observations, which overstates the effective sample size. The 1881 to 2016 sample of 10 year windows contains only about 14 independent decades. Quintiles split all months with a complete 10 year forward window into five equal groups by starting CAPE. Max sustainable withdrawal rate is the constant real withdrawal, taken at the start of each year, that exactly depletes the portfolio over 30 years given that period's realized annual returns. Timing rules set each month's position from the prior month's CAPE and switch between Shiller's S&P 500 and 10Y Treasury real total return series. Shiller's monthly prices are monthly averages, so a real investor could not have traded at exactly these levels. The TIPS based excess CAPE yield uses the 10Y TIPS yield as the real rate, which differs from Shiller's method (nominal 10Y yield less trailing 10 year inflation).

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