# What Does the Price to Earnings Ratio Really Tell Us?

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Investors often use the Price to Earnings Ratio (P/E) to compare the current value of a company relative to its historical range to determine if it's cheap, expensive or fairly valued based on history. P/E multiples are also used to compare values against the universe of alternative opportunities. As of September 30, 2025, the S&P 500 index (SPX) price was 6688, with estimated 12 months forward earnings per share of $285, equating to a P/E of 23.46x. Looking at Figure 1, this S&P 500 P/E ratio ranks among the highest dating back to 1963.

Figure One
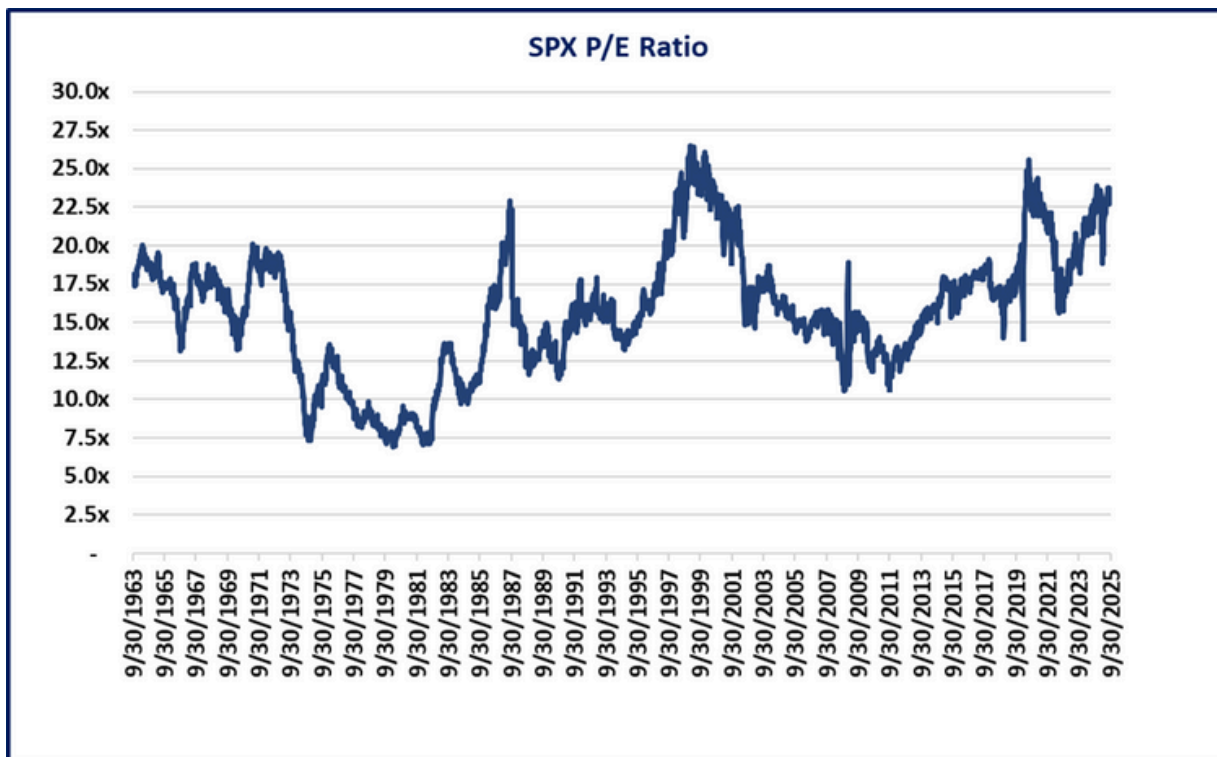
Source: Century Management and Bloomberg

Many point to this as a sign that the equity market is extremely overvalued, bordering on a bubble, while others argue that the current levels are justified based on the current level of interest rates and the anticipation they're heading lower. Because interest rates are a component of the cost of equity, they are directly correlated to P/E multiples, hence the interest rate argument's validity. Higher rates place downward pressure on P/E multiples, while lower interest rates support higher P/E multiples. The level and direction of interest rates also influence P/E ratios from a competitive yield standpoint. By flipping the P/E multiple to an E/P multiple, referred to as the earnings yield, investors can directly compare equity investments to bonds. For example, the 9/30/25 S&P 500 P/E of 23.46x is equal to a 4.27% earnings yield.

Figure Two

Shows the yields of US Treasury bonds compared to the S&P 500 earnings yield.

| Comparative Yields as of 9/30/2025	
1 Year Treasury Bond Yield	3.61%
2 Year Treasury Bond Yield	3.61%
5 Year Treasury Bond Yield	3.74%
10 Year Treasury Bond Yield	4.15%
30 Year Treasury Bond Yield	4.73%
SPX Earnings Yield	4.27%

Source: Century Management and Bloomberg

Figure Three

Compares the S&P 500's earnings yield (1/P/E) with long-term Treasury yields from 1963 through September 30, 2025. Across most of the record, the two move together: when bond yields fall, earnings yields fall and P/E multiples rise; when bond yields rise, earnings yields rise and P/E multiples contract. The relationship isn't perfect—there are episodes of divergence—but the overall correlation is high, with R^2 of 43% underscoring how interest rates often anchor equity valuation.

Curiously, though, when record-low interest rates occurred during 2020/2021, we did not establish new record-low earnings yields or a new record-high P/E (as seen in Figure 1). We simply matched previous high equity valuation levels.

This begs the question, WHY? If interest rates have such a large influence on P/E multiples, then WHY did we not have a record high P/E multiple for the S&P 500 during a period which had record low risk-free rates?
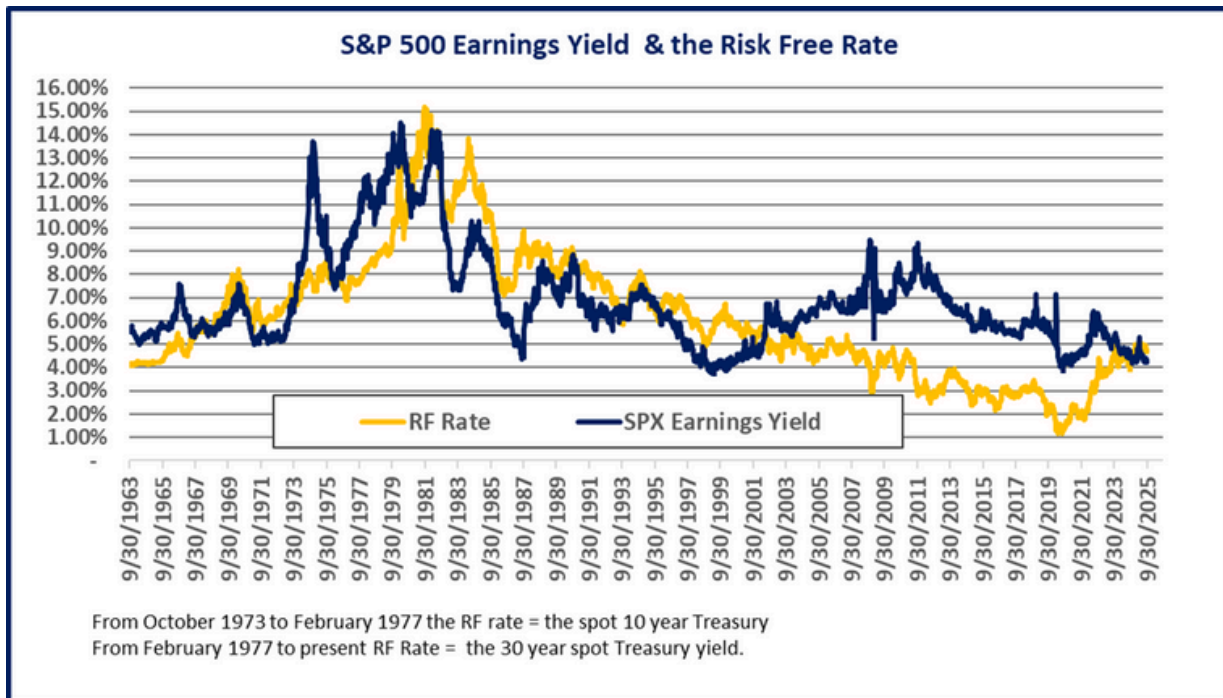
Source: Century Management and Bloomberg

Up to now, we've focused on the shorthand version of the P/E formula that most everyone is familiar with. However, deconstructing the price earnings ratio into its component parts provides an answer.

Using the extended P/E formula, we can isolate the various components and gain better insight into the factors influencing P/E multiples beyond just interest rates.

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The Extended P/E formula = (1+G)/ (RF+ERP-G)

Where:

   G = terminal growth rate or the constant estimated growth into perpetuity.

   RF = the risk-free rate* = 4.73% as of this writing but changes daily.

   ERP = the equity risk premium, or the expected return over the risk-free rate.

*For the risk-free rate, we use the 30-year Treasury. In our view the 30-year Treasury is a better duration match to equities than the often-used 10-year Treasury. And we find the 30-year Treasury more consistently reflects longer term inflation expectations.

See the appendix for more details on calculating P/E and the ERP.

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Just as investors often compare P/E ratios relative to historical ranges and against other investments, by de-constructing the P/E using the extended formula, we can compare the historical interaction between the risk-free rate (RF) and the equity risk premium (ERP) and the effect on P/E multiples.

Figure Four

Shows history of risk-free rates and SPX equity risk premium from 1963 to 2025.
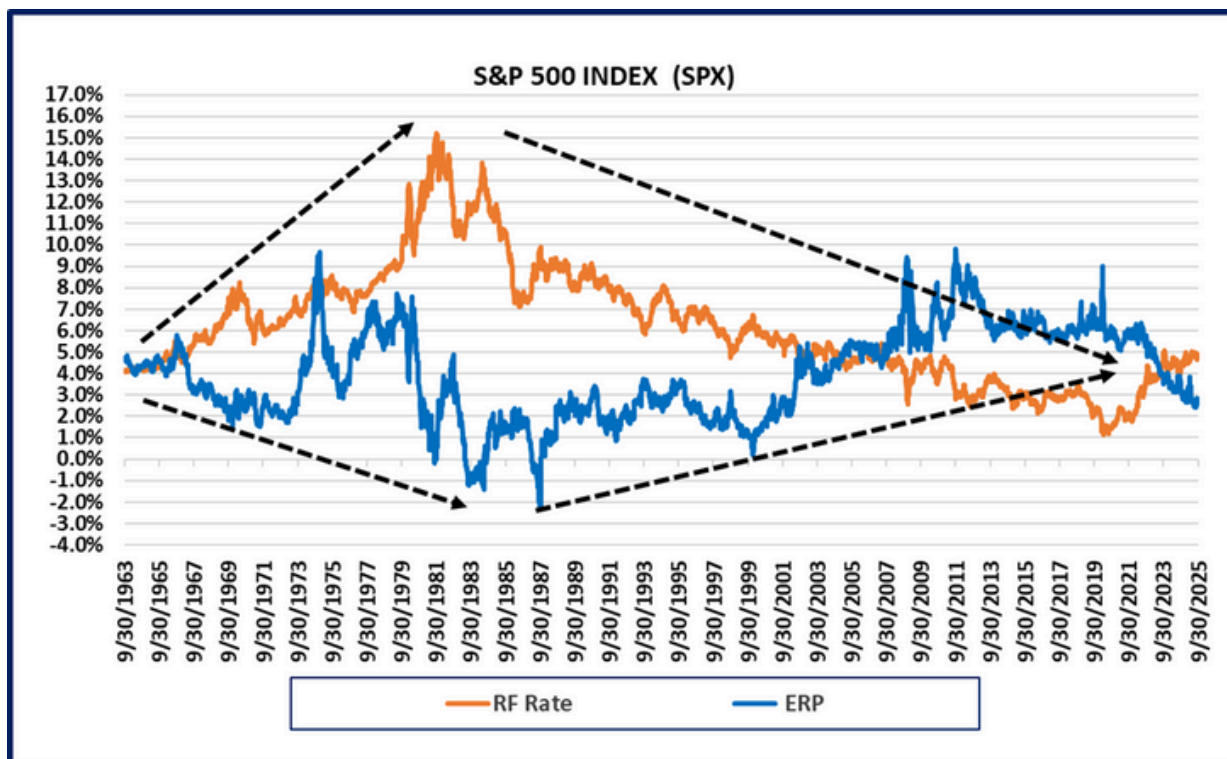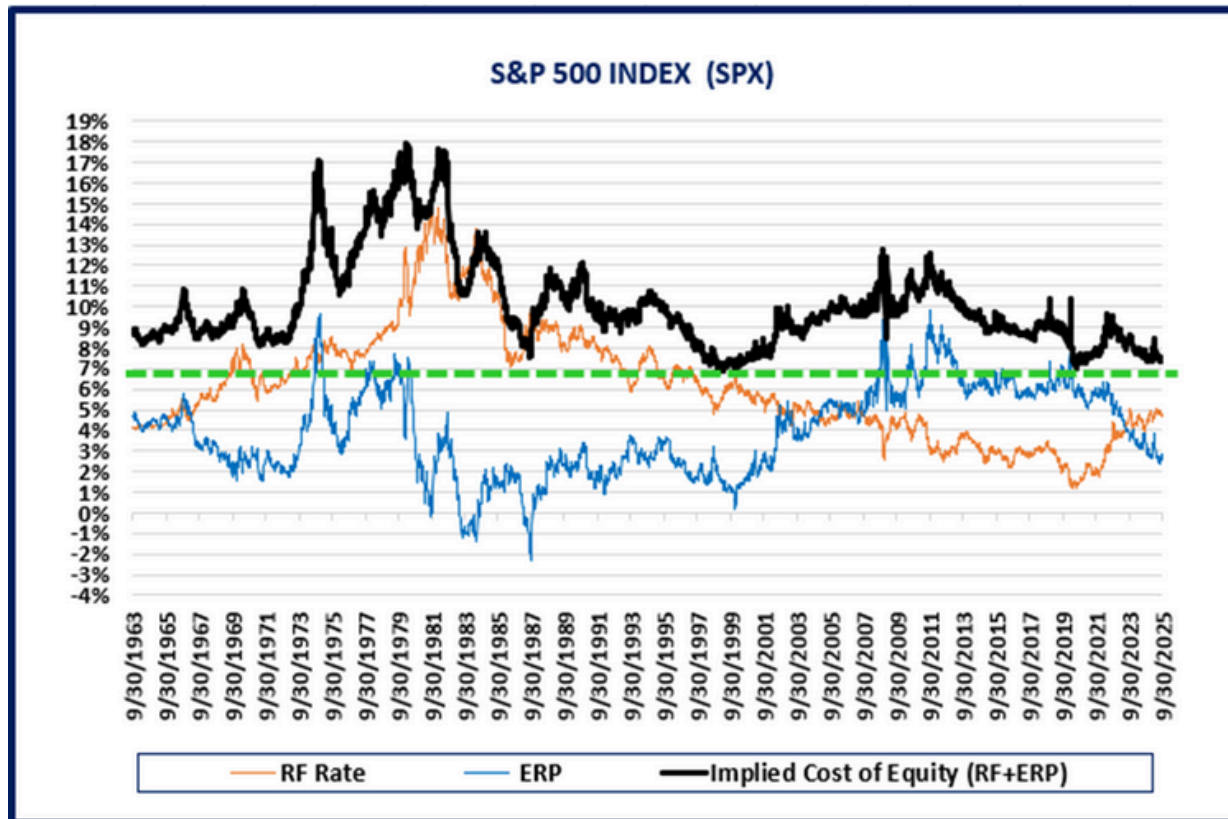

Source: Century Management and Bloomberg

Reading the graph from left to right, there are two distinct periods. The first being, 1963 to 1981, characterized by sharply rising risk-free rates and very volatile equity risk premiums. Starting in 1963, both the RF and ERP began the period at about 4%. However, after several years of rising inflation in the late 1960's, President Nixon officially ended the convertibility of dollars for gold in 1971, and by 1981 after years of rampant inflation, the risk-free rate and the equity risk premium were at opposite extremes.

The second period, from 1981 through 2021, has been characterized by steadily declining risk-free rates and choppy but rising equity risk premiums. Importantly, within the broader periods, there have been long phases, influenced by economic cycles and monetary policies, when the RF rate and the ERP moved in tandem as well as times when they've moved in opposite directions.

The risk-free rate reflects inflation expectations, while the equity risk premium reflects investor confidence in the stability of future earnings growth. The directional movement of each both separately and together offer interesting insights. For example, when the risk-free interest rates rise – signaling higher inflation expectations and the equity risk premium widens – signaling declining confidence in the stability of future cash flows, it indicates a market in distress and points to lower equity valuations. This worst-of-all-worlds scenario was experienced from 1972 to 1982, resulting in SPX P/E of 7x. By contrast, equity market utopia is when both the risk-free rate and the equity risk premium are moving lower together. This scenario, which reflects declining inflation expectations and increased confidence in future cash flows, epitomized the period from 1996 through 2000, which culminated in a record SPX P/E of twenty-six. We've just described two extremes, but how do we best analyze the scenarios between the extremes? To help sort this out, we add the risk-free rate together with the equity risk premium (RF+ERP) for what we call the Implied Cost of Equity (COE) – the market implied discount rate of equity cashflows.

Figure Five

Takes the previous graph and overlays the Implied **Cost of Equity (COE)**. When we combine the two (RF+ERP) shown by the blackline, you can see there is a method during periods of madness. Since 1963, through a wide variety of market environments, geo-political confrontations, inflationary periods and interest rate extremes, the **Implied Cost of Equity** helps cut through the fog so we can better visualize market valuation extremes.

S&P 500 INDEX (SPX)

Source: Century Management and Bloomberg

As a reminder, the **lower** the Implied Cost of Equity the **higher** the P/E. When looking at the black line, what initially stands out is that since 1963, regardless of the level of interest rates or the equity risk premium, _major market tops_ have occurred when the Implied Cost of Equity reaches 7% to 7.5% (green line). The one exception was 2007 which we will address later.

Major market bottoms generally occur when the Implied Cost of Equity reaches 12-13%, though above 10% has proven to be a good time to buy equities. The clear exception of _major market bottoms_ occurred directly after Nixon shut the gold window in 1971. The era of high inflation that followed led to the Implied Cost of Equity reaching 16-18%.

The perfect world for SPX returns is when the Implied Cost of Equity is declining. During these periods, SPX has performed extraordinary well. On the other hand, during periods with rising Implied Cost of Equity, SPX posted poor results for long periods.

Figure Six

Shows SPX performance during periods of rising and declining Implied Cost of Equity.

Market Periods	# of Years	SPX Price % Change	SPX % Annual Return
Rising Implied Cost of Equity (RF+ERP)			
12/31/1972 to 06/30/1982	9.5	-7.15%	-0.78%
09/30/1987 to 12/31/1990	2.25	2.60%	0.79%
03/31/2000 to 12/31/2011	11.75	-16.07%	-1.48%
Average	7.83	-6.87%	-0.49%
Declining Implied Cost of Equity (RF+ERP)			
6/30/1982 to 09/30/1987	5.25	193%	22.75%
12/31/1990 to 03/31/2000	10.25	356%	17.79%
12/31/2011 to 9/30/2025	13.75	432%	12.91%
Average	9.75	327%	17.82%

Figure Seven

Compares the Implied Cost of Equity to the corresponding P/E multiples. As mentioned earlier, at each of the major market peaks, Implied Cost of Equity (COE) consistently fell to 7% to 7.5% equating to P/E multiples between 22.8 and 25.75x.
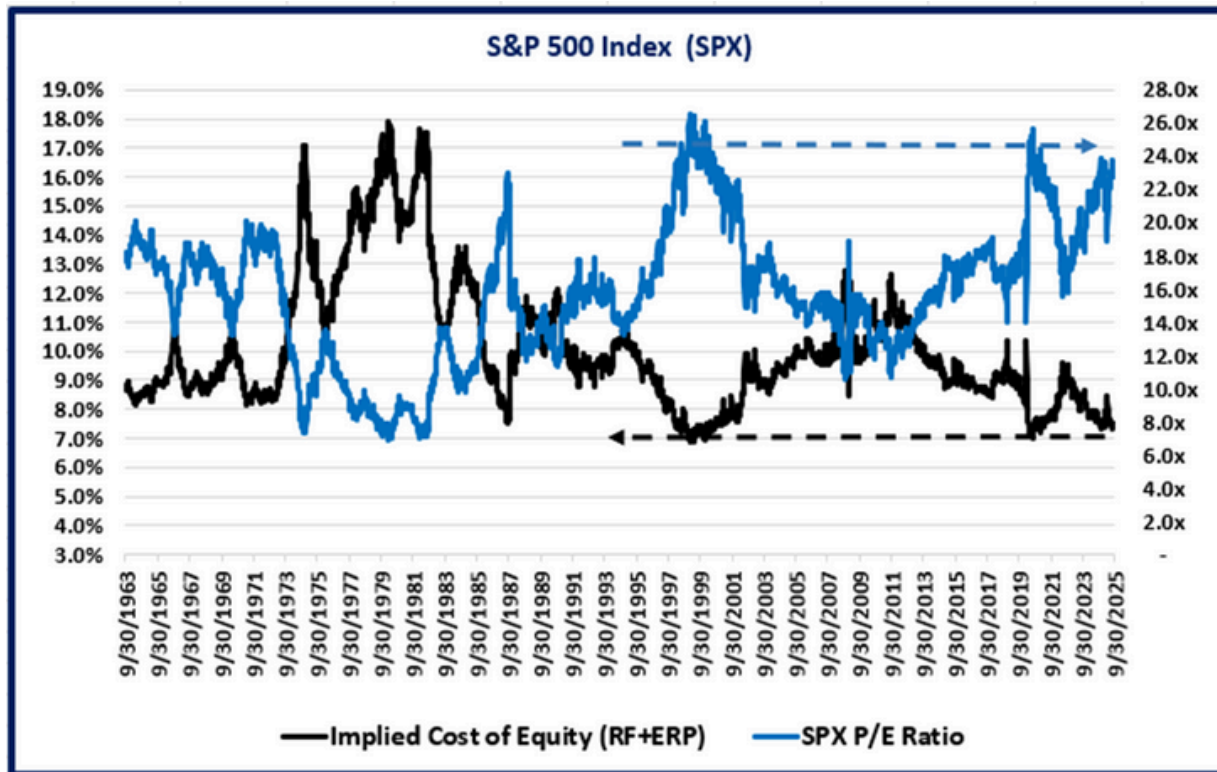
Source: Century Management and Bloomberg

The exception to this was the 2007 market peak; the stock market was not particularly expensive, leading up to the 2007 peak and subsequent 2008/2009 collapse. The S&P500 P/E was just 16X and the COE was 9.5%.

At the time, the Federal Reserve (Fed) was publicly focused on stemming the housing bubble brought on by aggressive government policies promoting homeownership and loose lending standards. To do so, the Fed raised the fed funds rate by 400 bps. However, deflating the housing bubble exposed the systematic financial risk in the banking system emanating from the cross ownership of mortgage debt and derivative contracts among large financial institutions. The ensuing liquidity crisis, resulting in the 2008-2009 Great Recession and stock market collapse, was most certainly more than the Fed expected.

Digging out of the ensuing mess, the Fed embarked on a decade of unprecedented monetary policies and yield curve control. As a result, from 2010 through 2021 we witnessed the continued decline in the risk-free rate, reaching record lows in 2020/2021. However, the equity risk premium remained relatively high, ranging between 5 and 9%, implying a healthy dose of skepticism around ultimate policy outcomes.

Because P/E multiples have historically moved with changes in the risk-free rate, it would be reasonable to assume that record-low rates should produce a record-low implied cost of equity and, in turn, record-high P/E multiples that eclipse prior peaks. The 2020–2021 experience shows the limit: as the risk-free rate slid toward roughly 1.2%, the equity risk premium edged higher, partially offsetting the benefit of cheaper discounting and preventing the implied cost of equity from falling as far as rates alone would suggest. Even so, by August 2020, the S&P 500 traded near 25×—the second-highest multiple since 1963, behind only the ~26× peak of the 2000 dot-com era. In short, lower interest rates remain strongly associated with higher P/E, but the effect is conditional on the equity risk premium, which can rise enough to cap the multiple.

So, a good question to ask is why did the ERP remain elevated compared to other market peaks?

The answer, I believe, is embedded in what the ultra-low interest rates might have implied. Historically, changes in the risk-free rate have been correlated with inflationary expectations,

Figure Eight

The 2020 rate environment relative to inflation was unique in modern history. Normally, the risk-free rate trades at a premium to inflation. However, with both inflation and interest rates then at record lows, and virtually no inflation premium to yields, the sustainability of these record low levels was a source of uncertainty and thus offset by an elevated equity risk premium.

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Risk Free Rate & CPI Index
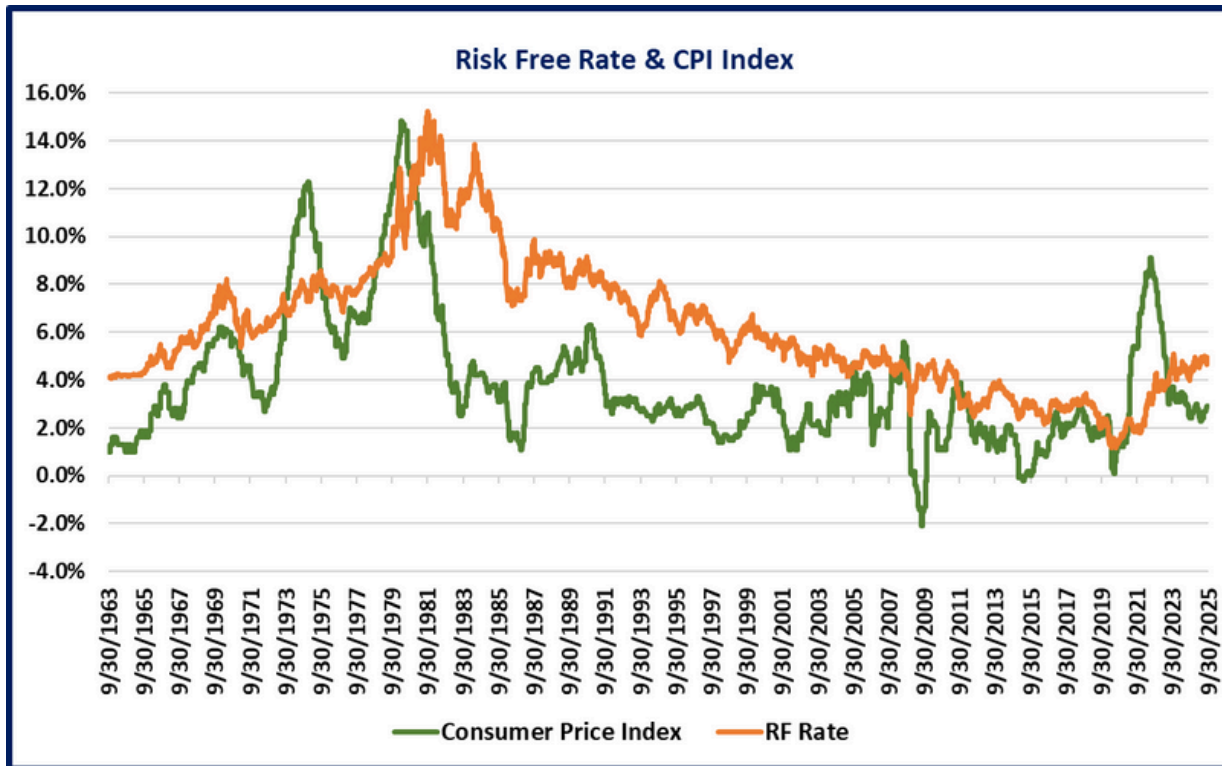
Source: Century Management and Bloomberg

Many argue that despite the Fed's policy accommodation and yield-control measures from 2011–2019–which kept rates low and drifting lower–it failed to lift economies from their decade of malaise. As global leverage climbed, Europe and Japan turned to negative-rate regimes to ward off deflation. A widely held view is that the only escape from a deflationary debt trap is large-scale fiscal spending and debt monetization, which ultimately lifts inflation. In essence, heavily indebted economies are seen as facing two endgames: inflation via monetization or a deflationary collapse.

Studying the interplay of the (RF) and the (ERP) across cycles since 1963 shows how their sum–the Implied Cost of Equity (COE)–maps the valuation climate.

In outright deflation (not mere disinflation), terminal growth for major economies compresses from ~3% toward 0%, ERP rises as earnings durability is questioned, and even with very low or negative RF the Implied Cost of Equity typically exceeds ~12%, pinning P/E in roughly the 8–15× range.

During sustained high inflation, RF climbs (often with a positive term premium) while ERP widens on margin pressure and uncertainty about real growth, pushing the Implied Cost of Equity higher and compressing P/E – exactly the late-1970s to early-1980s experience.

Conversely, in benign disinflation with credible growth, RF falls or stabilizes and ERP compresses, drawing the COE into the 7 to 7.5% upper valuation band that supports ~22–26× P/E, whereas a drift back toward the historical median of 9–10% COE mechanically pulls fair P/E down into the mid-teens.

This gauge is not a timing call; it's an **orientation tool**. By collapsing interest rates and ERP into one number, the **Implied Cost of Equity** tells us where valuation support–or pressure–is coming from and how close we are to the long-run bands. A market that's approaching the upper valuation bands clearly warrants a high degree of caution; it does not mean the market has topped as illustrated in **Figure 9**.

In August 2020, the COE hit 7%, marking the second highest P/E on record, yet the SPX kept rising until December 2021, increasing 45%, despite the COE increasing to 8%. The 2022 inflation scare caused the COE to rise further, reaching 9.5% by October 2022, which led to a 25% market correction. While it's tempting to "sell" the market at a 25x P/E, it would have been costly doing so in August 2020 – earnings have grown significantly, and the SPX has increased 100% since.

Figure Nine

S&P 500 INDEX (SPX) 12/2017 to 9/2025

Legend: Implied Cost of Equity (RF+ERP) — SPX Price
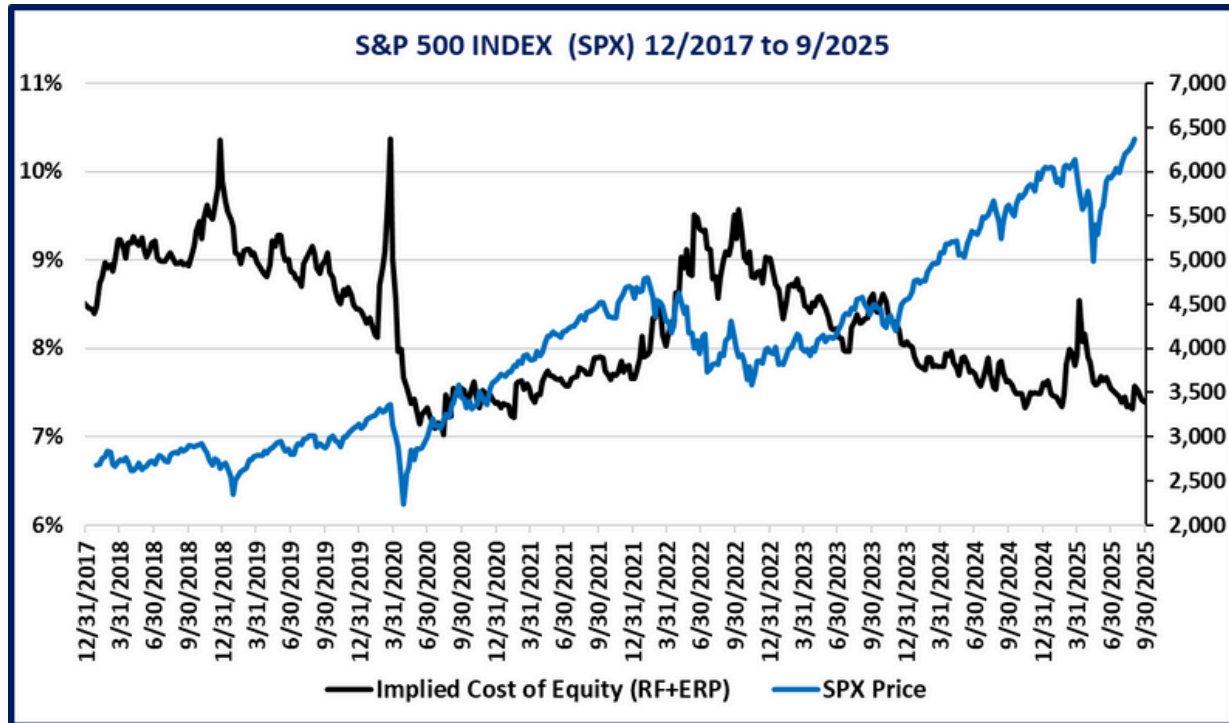
Source: Century Management and Bloomberg

As of 9-30-2025, with the S&P 500 at 6,688, forward EPS of $285, and a 30-year interest rate near 4.73%, the extended P/E equation implies an equity risk premium of ~2.66% and an **Implied Cost of Equity** around 7.4%. We again find the S&P 500 Index in the upper valuation bands. Further upside leans more on continued earnings growth than on multiple expansion unless long interest rates ease or the risk premium compresses further. For now, the message is straightforward: upside depends more on growth execution, while downside would stem from a higher discount rate or a renewed widening in the risk premium.

With the **Implied Cost of Equity** at historic peak levels, earnings growth becomes the key driver of further upside. **Figure 10** shows the S&P 500 return potential at various COE levels under forward earnings estimates for the next 3 years.

Figure Ten

Potential Values Based On Implied Cost of Equity (CoE)									
S&P 500 Index Price		6,688	12 Months FWD EPS						
Terminal Growth		3%	$285		$320		$346		
Current CoE		7.4%	2025		2026		2027		
	Cost of Equity (COE)	P/E	Implied Index Price	Return From Current Price	Implied Index Price	Return From Current Price	Implied Index Price	Return From Current Price	
Historical peaks	7.0%	25.75x	7339	10%	8240	23%	8910	33%	
	7.5%	22.89x	6523	-2%	7324	10%	7920	18%	
	8.0%	20.60x	5871	-12%	6592	-1%	7128	7%	
"Market Corrections" Historical Median	9.0%	17.17x	4893	-27%	5493	-18%	5940	-11%	
	9.4%	16.09x	4587	-31%	5150	-23%	5568	-17%	
	10.0%	14.71x	4194	-37%	4709	-30%	5091	-24%	
Bear Markets 2008/2009	11.0%	12.88x	3669	-45%	4120	-38%	4455	-33%	
	12.0%	11.44x	3262	-51%	3662	-45%	3960	-41%	
	13.0%	10.30x	2936	-56%	3296	-51%	3564	-47%	
70's & 80's Inflation	15.0%	8.58x	2446	-63%	2747	-59%	2970	-56%	
	18.0%	6.87x	1957	-71%	2197	-67%	2376	-64%	

Source: Century Management and Bloomberg

One final note on use: the **Implied Cost of Equity** gauge is an orientation tool, not a stopwatch. The practical playbook is to watch the **direction** of the gauge and the **breadth** of earnings revisions. With today's reading near the upper band, returns will hinge more on earnings than multiple expansion until either long rates ease or the ERP compresses–this is a posture, not a prediction.

Across market regimes–from geopolitical shocks to inflation surges and rate extremes–the **Implied Cost of Equity** cuts through the fog by zeroing in on the two forces that drive the risk-free rate and the equity premium: inflation and the sustainability of earnings growth, making valuation extremes easier to gauge.

December 3, 2025

Have questions? Get in touch with us through our Contact Information below.