Redeeming Value

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Simple Value Investing

- Buy a “value” stock, low P/B
  - … Low P/B has earned higher returns than high P/B
    - But it hasn’t worked well since 2009
- Form a “value factor” based on B/P
  - … The returns are attributed to risk
    - But it hasn’t worked well since 2009

Value Investing:

The Full Monty

"Most analysts feel they must choose between two approaches customarily thought to be in opposition: "value" and "growth.". . . We view that as fuzzy thinking. . . Growth is always a component of value [and] the very term 'value investing' is redundant."

... Warren Buffett, 1992

Too-Simple Value Investing

Ignore information at your peril

By trading on one piece of information, you are in danger of trading with someone who has done their homework

A Question for Traders on “Value”

If one trades on book value, shouldn’t one understand the accounting for book value?

What am I buying?

A Model for Pricing Book Value

Buying Book Value

$$P_t = B_t + \frac{Earnings_{t+1} - r.B_t}{r-g}$$

$$= B_t + \frac{(ROE_{t+1} - r).B_t}{r-g}$$

$$\frac{P_t}{B_t} = 1 + \frac{ROE_{t+1} - r}{r-g}$$

Ignoring information:

Book value must be evaluated with the earnings it generates

Adding ROE to B/P

$$\frac{B_t}{P_t} \times ROE_{t+1} = \frac{B_t}{P_t} \times \frac{Earnings_{t+1}}{B_t} = \frac{Earnings_{t+1}}{P_t}$$

Book value drops out!

Book value is the denominator of ROE:

Higher book value means lower ROE with no change in price

A Demonstration: Microsoft (MSFT), June 2025

(in billions)

Market value: $3,698

Book value: $321.9 B/P = 0.087

Forward earnings: $112.5 ROE = 34.95%

Forward E/P = 34.95% x 0.087 = 3.04%

Now, add missing assets of $400 billion to balance sheet:

Book value = 721.9 B/P = 0.195

Forward ROE (112.5/721.9). = 15.58%

Forward E/P = 15.58% x 0.195 = 3.04%

Given E/P, is B/P Irrelevant in Investing?

No: Price is also based on expected growth, *g*:

$$\frac{P_t}{B_t} = 1 + \frac{(ROE_{t+1} - r)}{r - g}$$

With B_t known and ROE_{t+1} predictable, the value investing problem is determining *g*

Can B/P help in conveying *g?*

Full Value Investing:

A Reorientation

Evaluating the Value of Growth

$$\frac{P_t}{B_t} = 1 + \frac{(ROE_{t+1} - r)}{r - g}$$

The speculative part of a valuation is in the pricing of growth, *g*

That's a challenge!

Beware of buying growth because growth is risky

Value Investing: The Reorientation

Calculate the growth forecast in the market price

Then challenge that growth forecast with fundamental analysis

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Negotiating with Mr. Market

Value Investing:
The Full Monty

$$\frac{P_t}{B_t} = 1 + \frac{(ROE_{t+1} - r)}{r - g}$$

Go into reverse engineering mode: Set P_t equal to the market price and ask, What is the market's growth forecast?

$$g = \frac{r - \frac{Earnings_{t+1}}{P_t}}{1 - \frac{B_t}{P_t}}$$

We need B/P to challenge the market's growth forecast

B/P is redeemed

A Demonstration: Microsoft (MSFT)

FYE June, 2025

For a hurdle rate of 10%:

$$g = \frac{0.10 - 0.0304}{1 - 0.087} = 7.62\%$$

For a hurdle rate of 8%:

$$g = \frac{0.08 - 0.0304}{1 - 0.087} = 5.43\%$$

Challenge the g with fundamental analysis

A benchmark: GDP growth rate = 4%

An Alternative Reverse Engineering

Reverse engineer to the expected return given a growth rate

$$Expected\ Return_t = \left[\frac{B_t}{P_t} \times ROE_{t+1}\right] + \left[(1 - \frac{B_t}{P_t}) \times g\right]$$

$$= \frac{Earnings_{t+1}}{P_t} + \left[(1 - \frac{B_t}{P_t}) \times g\right]$$

B/P is redeemed

A Demonstration: Microsoft (MSFT)

FYE June 2025

For g = 4%:

Expected Return = 3.04% + (1 – 0.087) x 4% = 6.69%

For g = 8%:

Expected Return = 3.04% + (1 – 0.087) x 8% = 10.34%

A benchmark: 10-year US Treasury yield = 4.01%

Applications:

Trading on E/P and B/P

Annual Returns to Trading on E/P

US Stocks,1963-2023

	1 (Negative)	2 (Low)	3	4	5 (High)	High – Low
All E/P	0.136	0.123	0.131	0.165	0.214	0.091
						(4.46)

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	All E/P	0.136	0.123	0.131	0.165	0.214	0.091
							(4.46)
	1 (Low)	0.039	0.104	0.130	0.166	0.185	
	2	0.054	0.097	0.118	0.150	0.196	
B/P_t	3	0.123	0.103	0.115	0.140	0.217	
	4	0.157	0.121	0.113	0.160	0.228	
	5 (High)	0.258	0.178	0.168	0.205	0.251	
	High-Low	0.219	0.074	0.037	0.040	0.066	
	t-stat	(5.97)	(2.68)	(2.12)	(2.42)	(3.08)	

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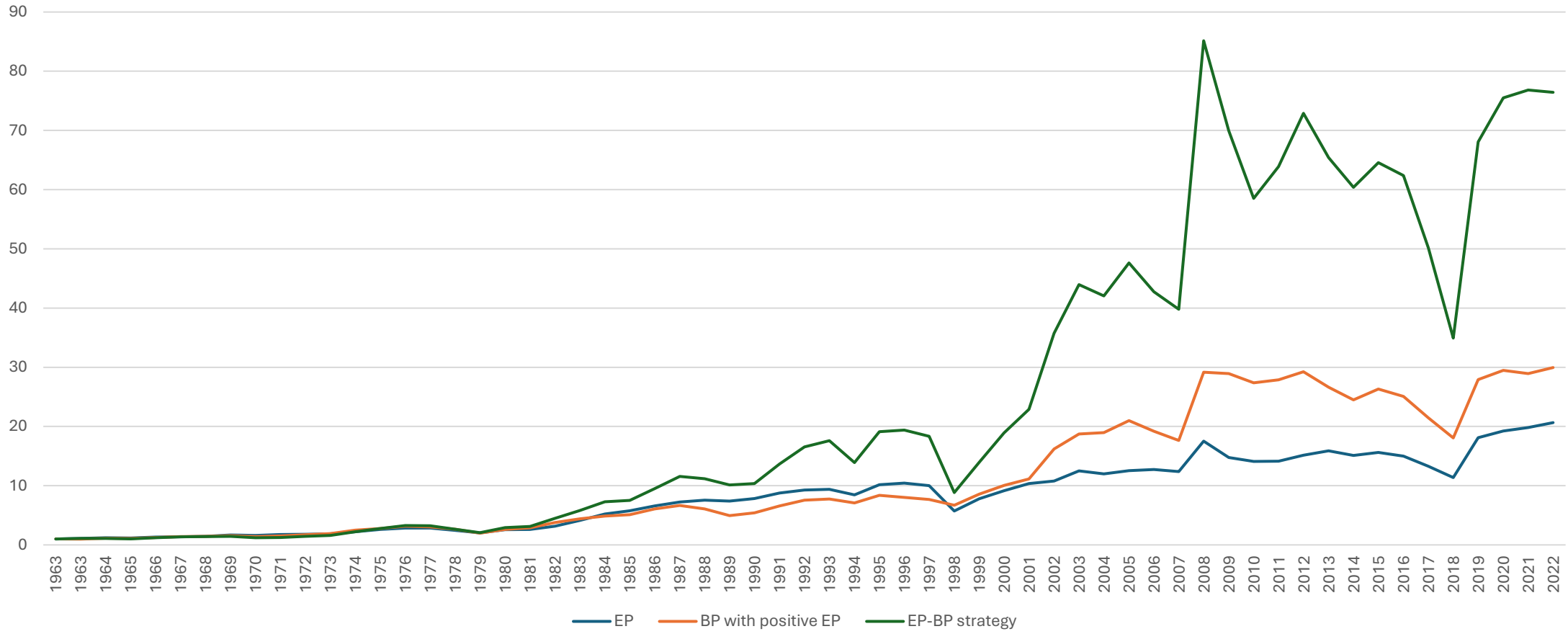
Cumulative Returns to Investing on Positive E/P, B/P, and E/P and B/P Together

1963-2023



Gravy….or Risk?

2008: S&P 500 Return -37.00%

	1 (Negative	2 (Low)	3	4	5 (High)	H-L
All E/P	-0.471	-0.415	-0.344	-0.333	-0.388	
H-L B/P	-0.031	-0.084	-0.056	-0.093	-0.078	-0.023

2018: S&P 500 Return -4.38%

	1 (Negative	2 (Low)	3	4	5 (High)	H-L
All E/P	-0.010	0.091	0.001	0.005	-0.032	-0.123
H-L B/P	-0.164	-0.173	-0.068	-0.062	-0.065	-0.245

2022: S&P 500 Return -18.11%

	1 (Negative)	2 (Low)	3	4	5 (High)	H-L
All E/P	-0.316	-0.121	-0.070	-0.052	-0.075	0.046
H-L B/P	0.005	-0.060	-0.046	-0.018	-0.026	0.022

Applications:

Challenging the S&P 500

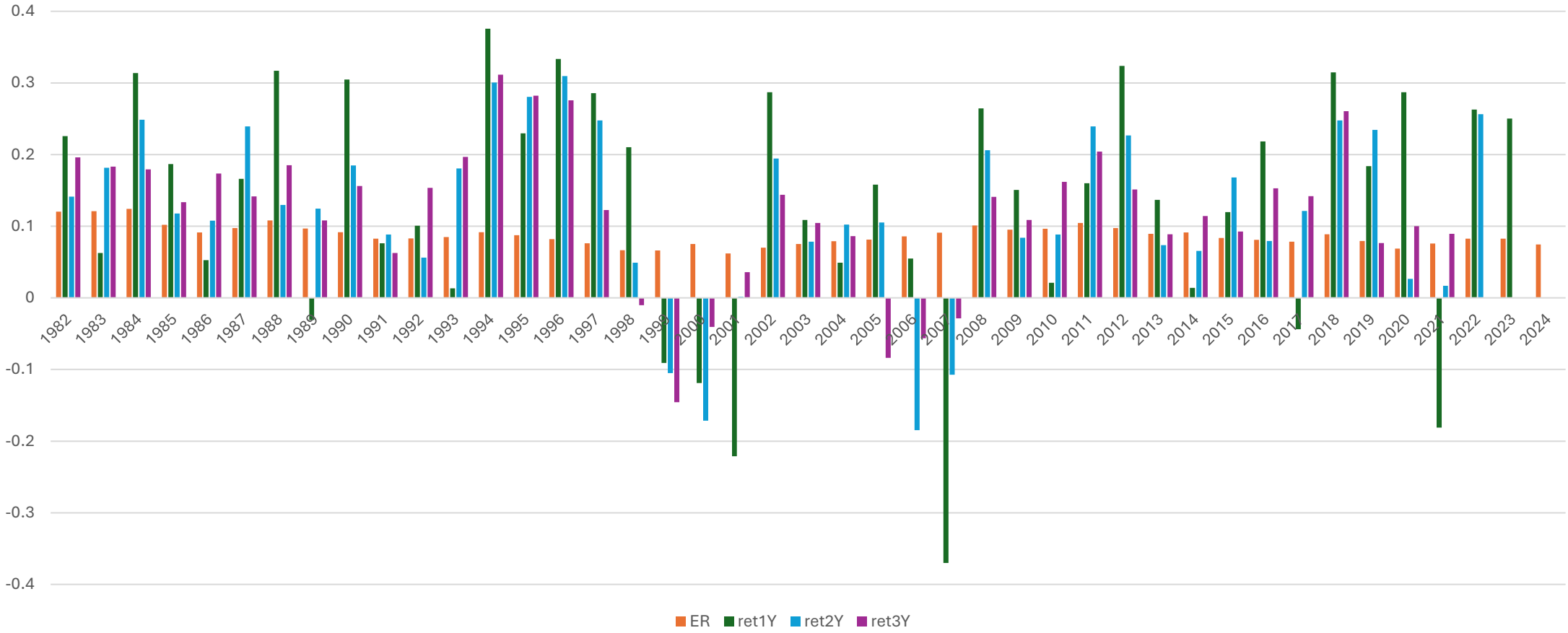
Predicting the Return for the S&P 500 at December 31 Each Year, 1982-2024 with the Expected Return Formula

g = 4% GDP Growth Rate

$$Expected\ Return_t = \left[\frac{B_t}{P_t} \times ROE_{t+1}\right] + \left[(1 - \frac{B_t}{P_t}) \times g\right]$$

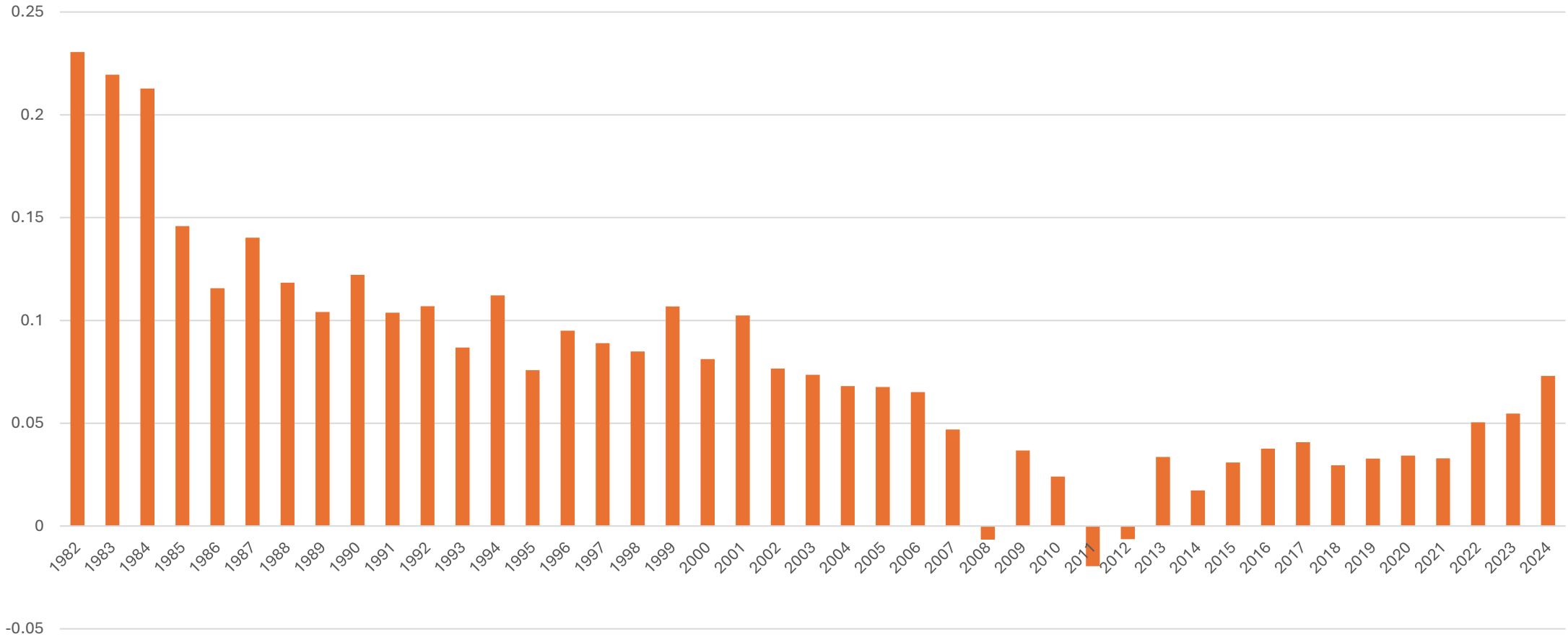
Return Period	Correlation	Intercept	Slope
1-yr forward return	0.257	-0.131	2.995
		(-1.17)	(2.58)
2-yr forward return	0.355	-0.137	2.951
		(-1.73)	(3.69)
3-yr forward return	0.458	-0.151	3.066
		(-1.91)	(3.78)
4-yr forward return	0.457	-0.118	2.664
		(-1.37)	(3.09)
5-yr forward return	0.510	-0.127	2.737
		(-1.66)	(3.62)

Expected Returns for S&P 500 and Actual Returns for the Next Three Years



Implied Growth Rates for S&P 500 at December 31 Each Year

Required return = 10-year Treasury yield + 5.5%



Applications:

Challenging Individual Stocks

Challenging Stocks with the Implied Growth Formula

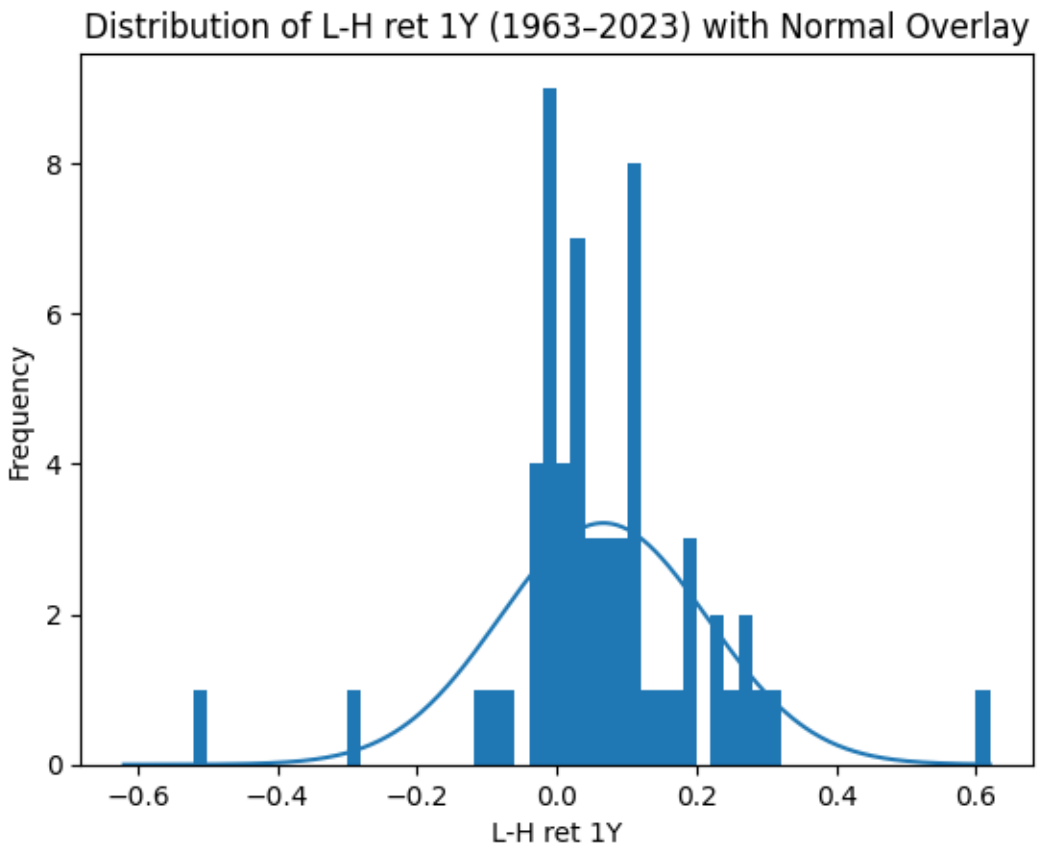
r = 10%, all US stocks, !963-2023

$$g = \frac{r - \frac{Earnings_{t+1}}{P_t}}{1 - \frac{B_t}{P_t}}$$

Implied Growth Portfolio	Implied Growth, g	E/P	B/P	One-year Returns	Two-year Returns	Three-year Returns
1 (Low)	-0.875	-0.148	1.292	0.202	0.443	0.673
2	-0.087	0.058	1.082	0.192	0.408	0.643
3	0.013	0.081	0.775	0.191	0.383	0.575
4	0.051	0.072	0.604	0.155	0.317	0.511
5	0.074	0.061	0.535	0.142	0.281	0.439
6	0.097	0.051	0.519	0.110	0.226	0.358
7	0.131	0.040	0.575	0.102	0.214	0.357
8	0.194	0.016	0.609	0.103	0.207	0.367
9	0.335	-0.039	0.639	0.119	0.254	0.405
10 (High)	1.230	-0.220	0.723	0.136	0.330	0.537
Low-High		0.072	0.569	0.067	0.114	0.136
(t-stat)		(4.25)	(13.31)	(3.46)	(3.84)	(3.59)

Gravy….or Risk?

Distribution of One-Year Returns to Strategy over Years, 1964-2023



Conclusion

B/P is Redeemed

The tools:

- The Implied Growth formula
- The Expected Return Formula

But we have used only two pieces of information

B/P is Redeemed
But as a Step to Full Value Investing

The tools:

- The Implied Growth formula
- The Expected Return Formula

But we have used only two pieces of information

This is where full value investing starts:

- The analysis of growth: Do I agree with the market's growth forecast?
- The analysis of expected return: Is the expected return for an agreeable growth rate acceptable?

Value Investing

The Reorientation

Valuation models don’t work to convey Value

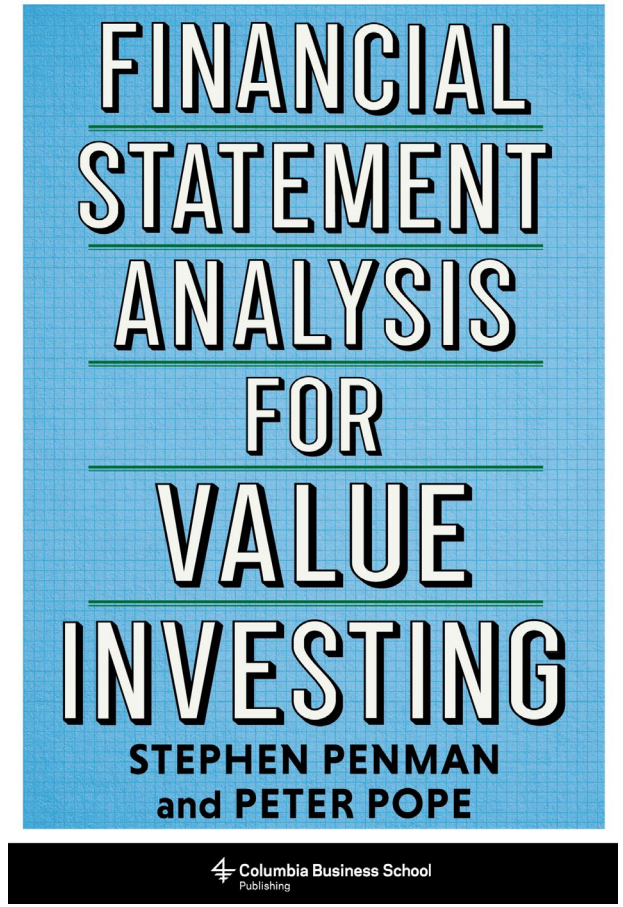
But you don’t have to know the Value

You just have to understand the market’s pricing of growth with B/P redeemed

Then challenge that pricing with fundamental analysis

Do I agree with Mr. Market?

Thank You!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