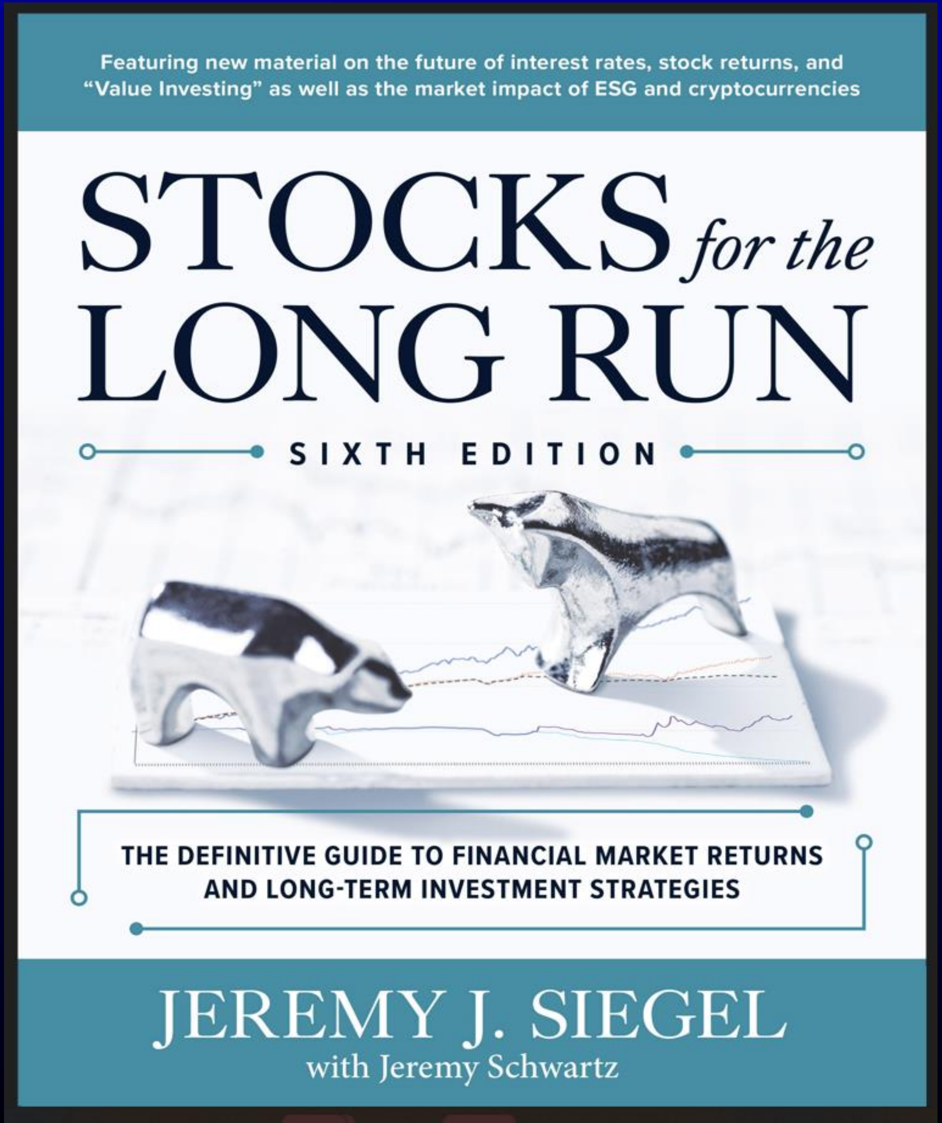
Pitfalls of Valuation Models

Presented at Jacobs Levy Conference September 20, 2024

Jeremy J. Siegel

In April 25, 2014, Bob and I discussed Valuation Models at a Jacobs Levy Conference.

This grew out of the paper that I presented on October 15, 2013 at the Q Conference that discussed Shiller's CAPE ratio.



Families in Poconos in 1983

Bull vs. Bear Battle: October 15, 2013 Q Group

September 2, 2013 7:57 pm

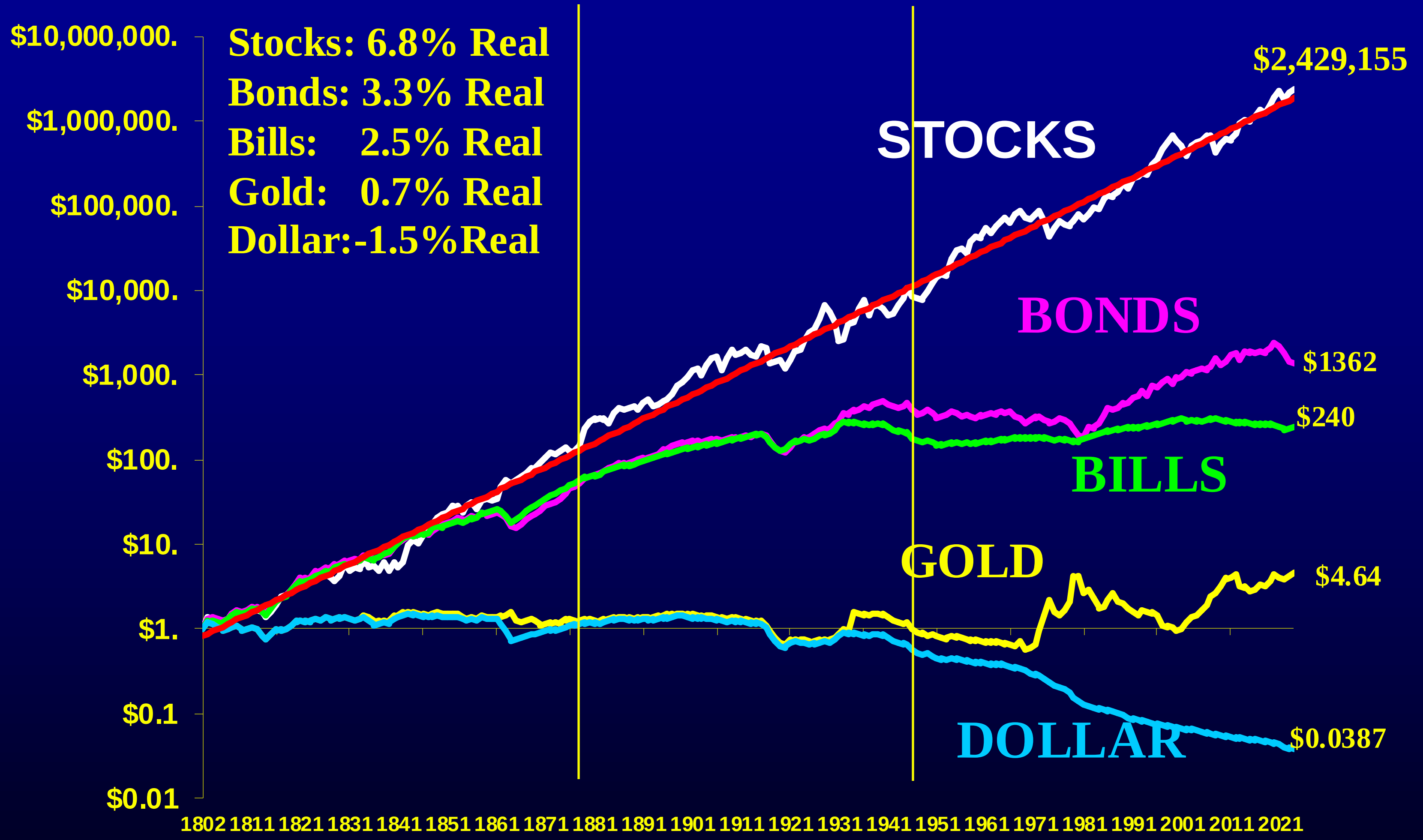
Clash of the Cape crusaders

By John Authers

The world's leading market historians are locked in an intense debate over the true value of stocks

Total Real Return Indexes

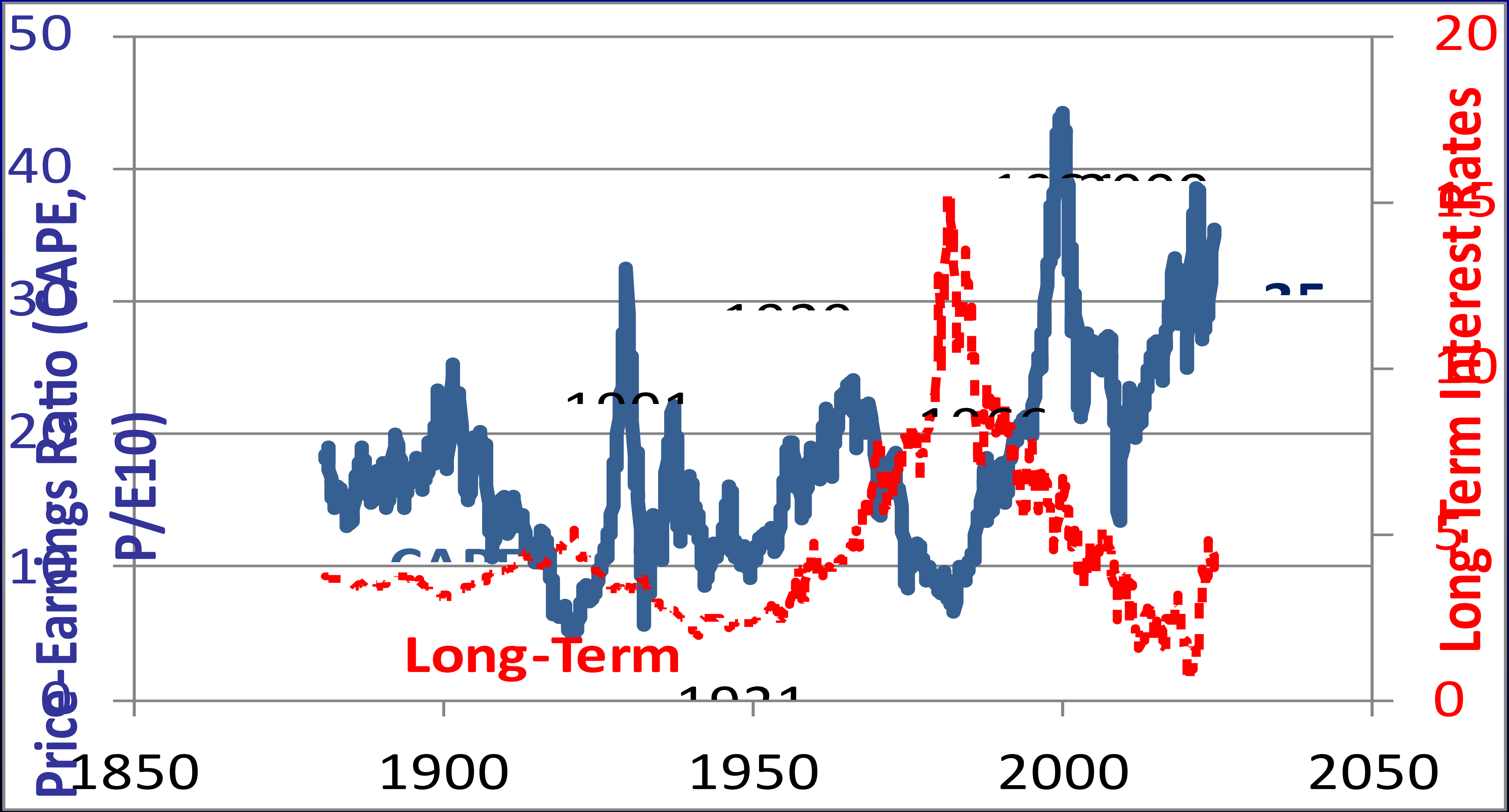
January 1802 – June 2024



Source: Siegel, Jeremy, *Stocks for the Long Run (2022) with updates to 2024*

Past performance is not indicative of future results. You cannot invest directly in an index.

CAPE Ratio


50
40
Price-Earnings Ratio (CAPE, P/E10)
20
0
Long Term Interest Rates
Long-Term
1850
1900
1950
2000
2050

Our 2014 Forecasts

- Shiller CAPE ratio was 25 in March 2014, about 60% above its long-term average and forecasting at 2.24% real return over the next 10 years.
- I forecast a 5% to 6% real return, about 1 ppt below the long-term average of 6 ½% to 7%.

Returns since JL Shiller/Siegel meeting in 2014

Range 04/30/2014 - 07/31/2024 Period Monthly No. of Period 123 Month(s) Table

	Security	Currency	Price Change	Total Return	Difference	Annual Eq
1)	SPX Index	USD	193.12%	253.94%	-114.94%	13.11%
2)	RLG Index	USD	314.90%	368.88%	--	16.25%
3)	RLV Index	USD	88.25%	140.93%	-227.95%	8.95%
4)	RTY Index	USD	100.07%	129.62%	-239.26%	8.44%
5)	EFA US Equity	USD	17.62%	60.55%	-308.33%	4.72%
6)	CPI INDX Index		32.59%	32.59%	-336.29%	2.79%

1M 3M 6M YTD 1Y 2Y 3Y 5Y 10Y

Why the CAPE Ratio Was Too Bearish

- My paper at the Q meetings (subsequently published in the FAJ in 2016) showed why the CAPE ratio was too pessimistic.
- I focused on the huge earnings drop that occurred curing the financial crisis that was caused by a change in FASB accounting standards (market value changes were brought into reported earnings). This did not occur in previous recessions

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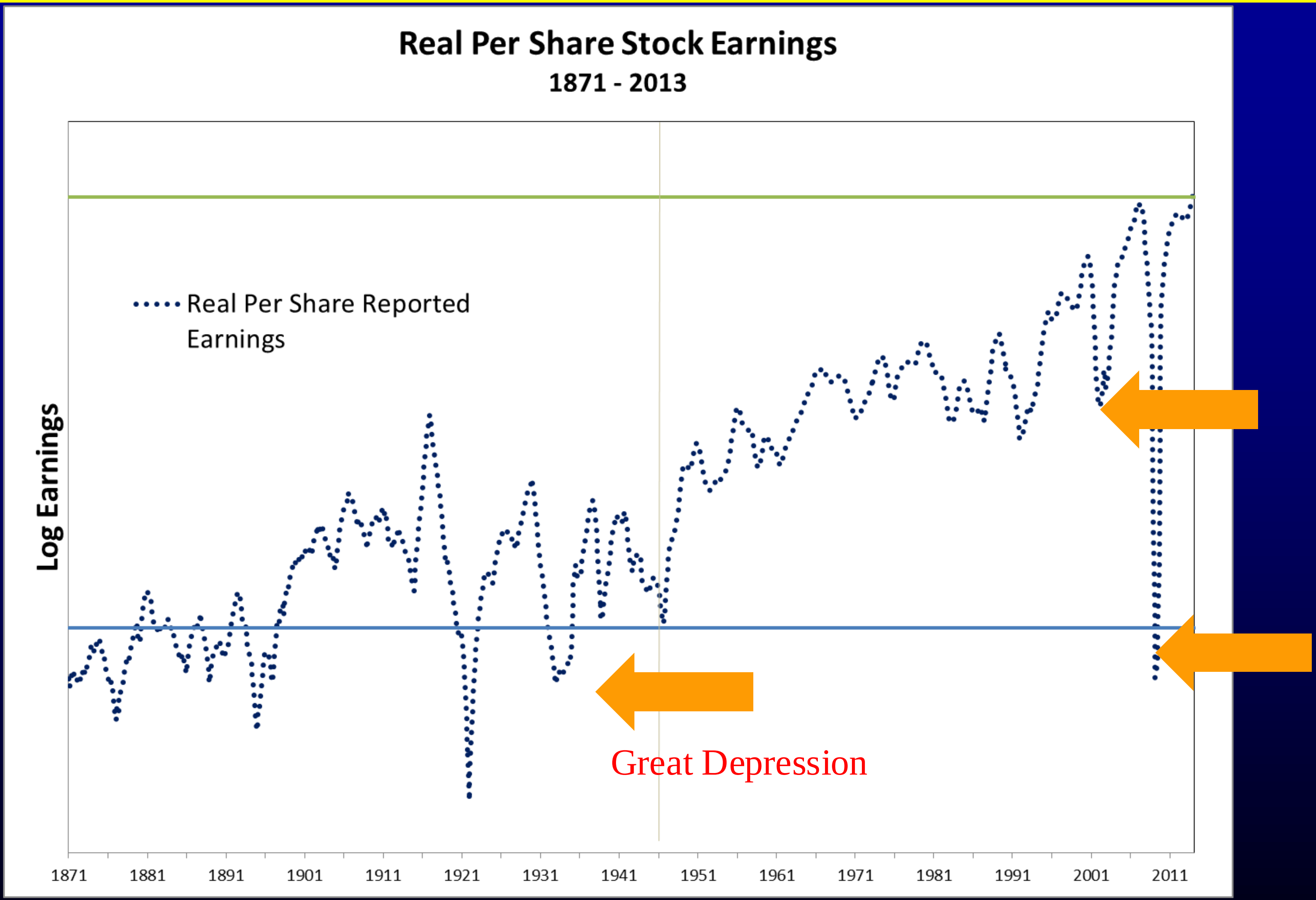
The Shiller CAPE Ratio: A New Look

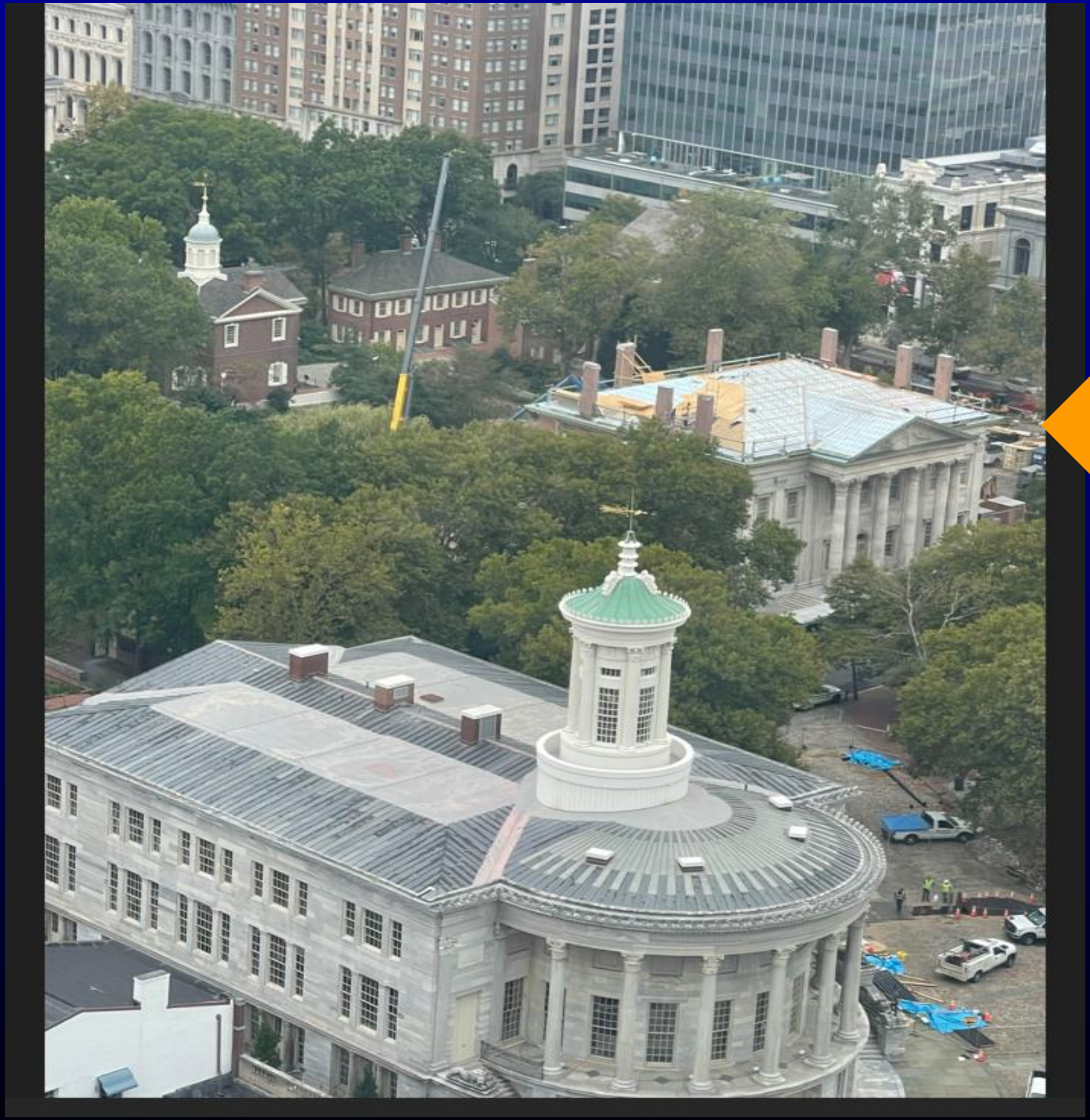
Jeremy J. Siegel

Robert Shiller's cyclically adjusted price–earnings ratio, or CAPE ratio, has served as one of the best forecasting models for long-term future stock returns. But recent forecasts of future equity returns using the CAPE ratio may be overpessimistic because of changes in the computation of GAAP earnings (e.g., "mark-to-market" accounting) that are used in the Shiller CAPE model. When consistent earnings data, such as NIPA (national income and product account) after-tax corporate profits, are substituted for GAAP earnings, the forecasting ability of the CAPE model improves and forecasts of US equity returns increase significantly.

Real Per Share Earnings



First Bank Of the United States (Hamilton's Bank)



What can Cause Long-term Valuation Models to Fail?

- **Change in the Definition of the Earnings.**
- **Change in Dividend Payout Ratio (Shiller shifted to the "Total Return" CAPE model in 1996).**
- **Change in the Discount Rate; Shiller Shifted to the ECY, or Excess CAPE Yield Model.**
- **Changes in transactions costs; lower costs raise the equilibrium PE ratio.**
- **The New Digital Economy? Mag 7?**

Future Forecasts

- **Bob's current forecast for stock returns (nominal) is 5.2% which corresponds to about 2 ½ % real (with 2.5%) inflation.**
- **My forecast is 4.9% real return based on a 12 month forward looking PE ratio of about 21; which translates into a 4.9% earnings yield (reciprocal of PE ratio is a predictor of real returns).**
- **Given 10-year TIPS at 1.6%; this a yield gap of 3.3%, which is, interestingly, exactly equal to the long-term difference over the last 220 years (stocks 6.8%; bond 3.5%).**