2023

SESSION 1-A-1

Inflation & Other Economic Factors – Impact on Investments and Interest Rates

MAY 1, 3 & 5

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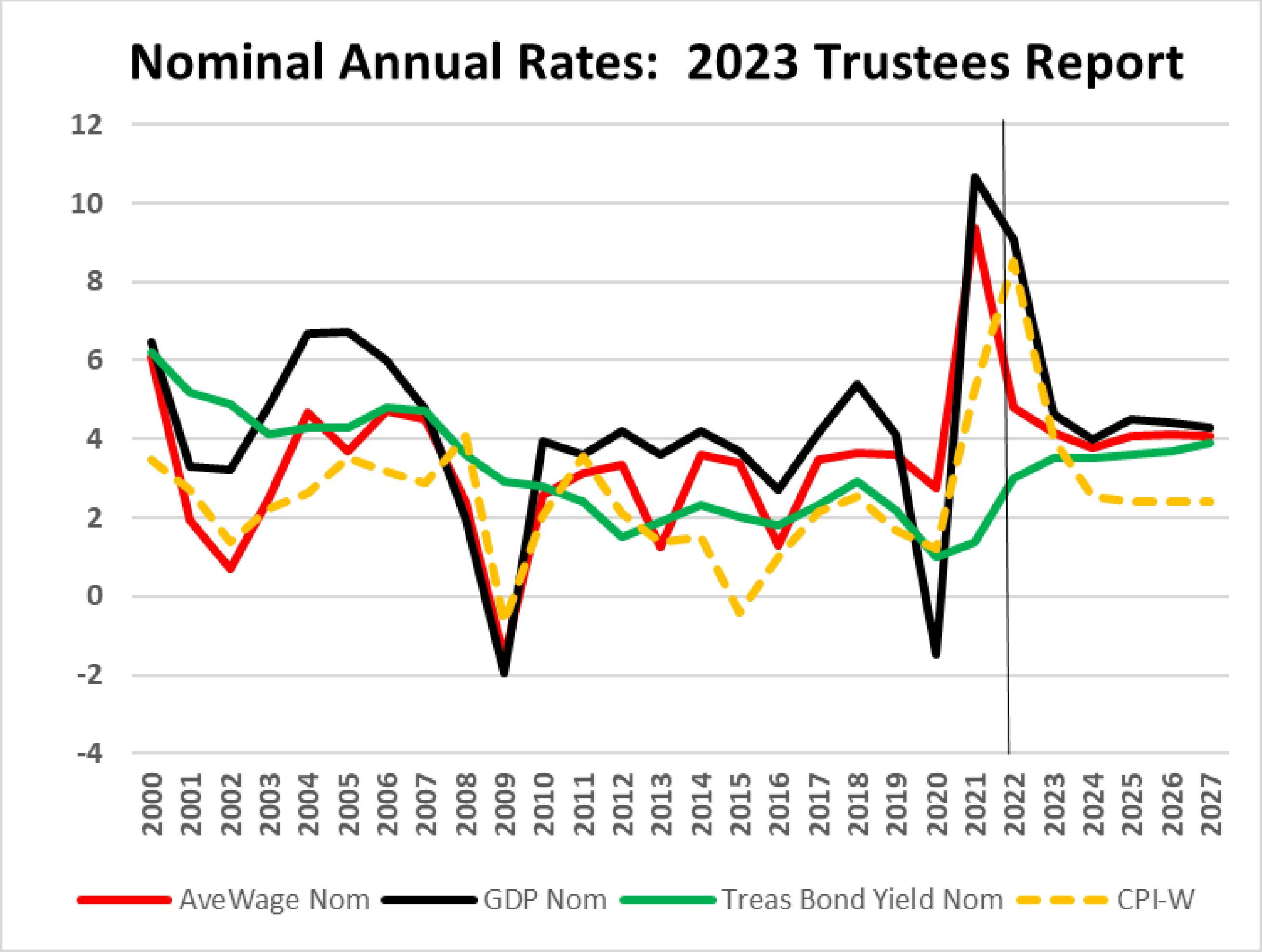
Impact on The Economy and Social Security

Last 2 Recessions: 2009 and 2020; and Recoveries

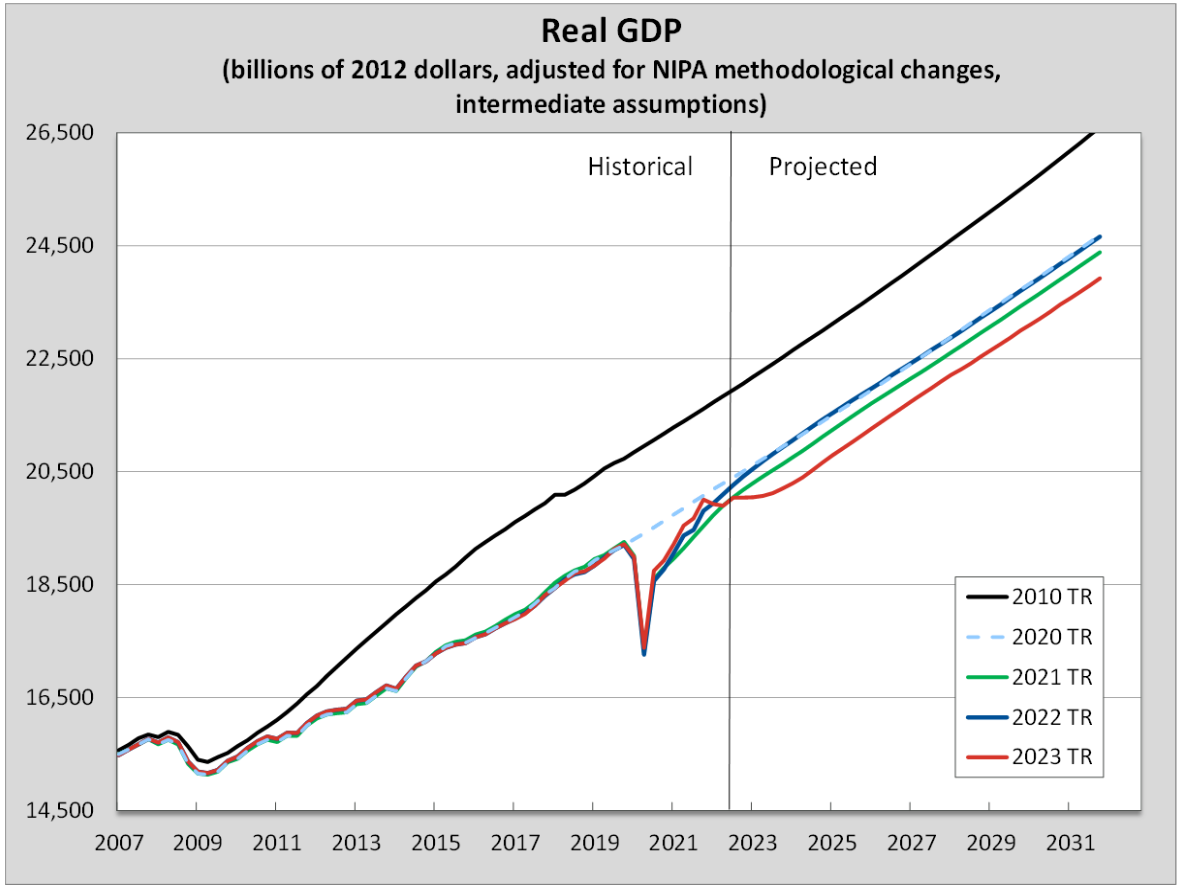


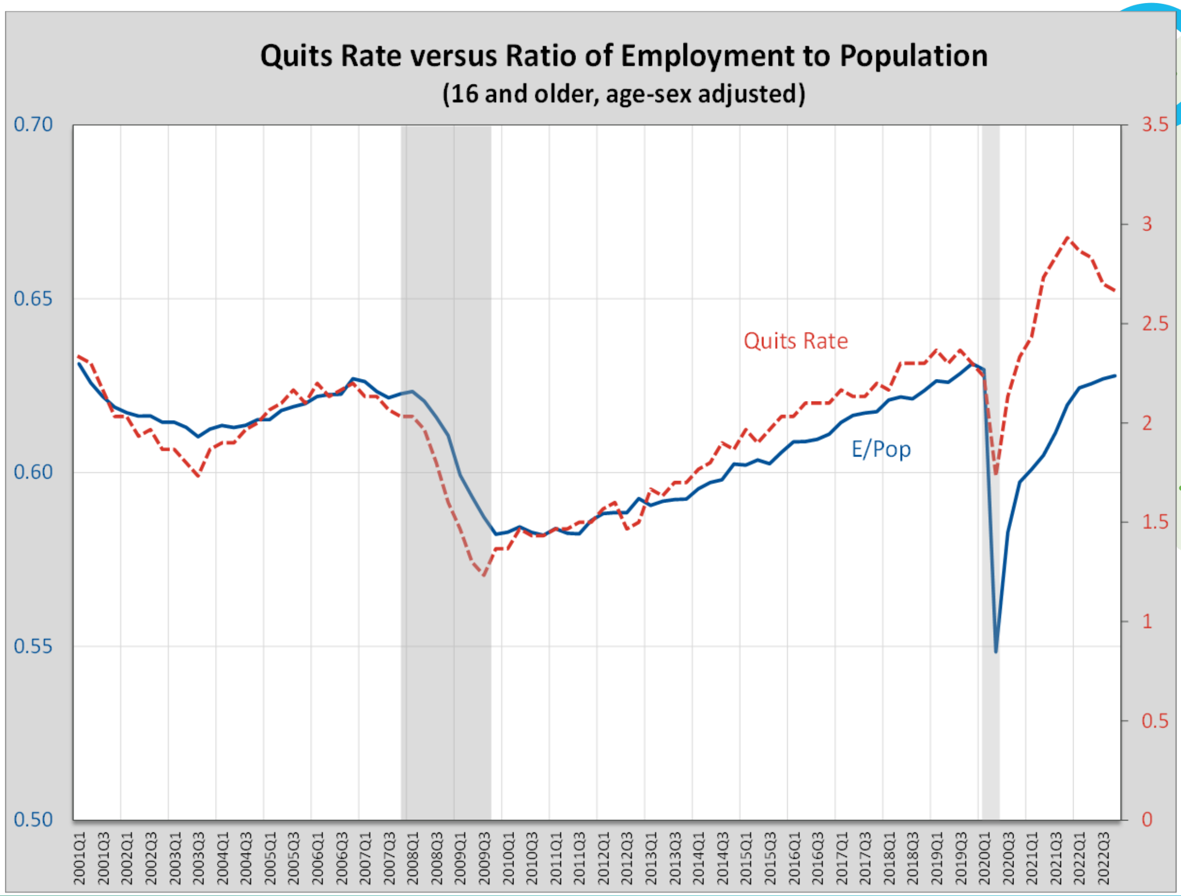
Average ***annual*** *OASDI covered wage* changed with GDP in 2009-12.

But different in the 2020 *pandemic* recession where average annual wage dropped little in 2020, rose sharply in 2021, with price inflation in 2021 and 2022.

Positive real yield on Treasury bonds assumed to return in 2024 with reduced price inflation following GDP slowdown assumed in 2023.

Drop in expected level of GDP after 2009 recession accelerated expected year of OASI Trust Fund reserve depletion from 2042 in 2007 Trustees Report to 2034 in the 2020 report.
Trustees for 2023 report lowered expected level of GDP an additional 3 percent starting in 2023, thus accelerating OASI reserve depletion to 2033. Reductions in GDP are in productivity and average real wage, ……not employment rate which recovers to same level as in 2007.





Social Security (National pension) Implications from Inflation, and Investment Yields

- Reduction in average wage lowers payroll and tax revenue immediately
- But lowers benefit levels starting 2 years later, only for new eligibility
  - After initial eligibility, benefits are indexed by CPI-W (price levels)
  - So there is a long lag between effect on overall earnings and benefit levels
  - Variations ***up and down*** tend to have offsetting effects over time
  - But the reduction in GDP and wage ***level*** assumed permanently lowers reserves
- Trust fund reserves invested in Treasury bonds only, by law
  - However, investment in private securities has long been considered

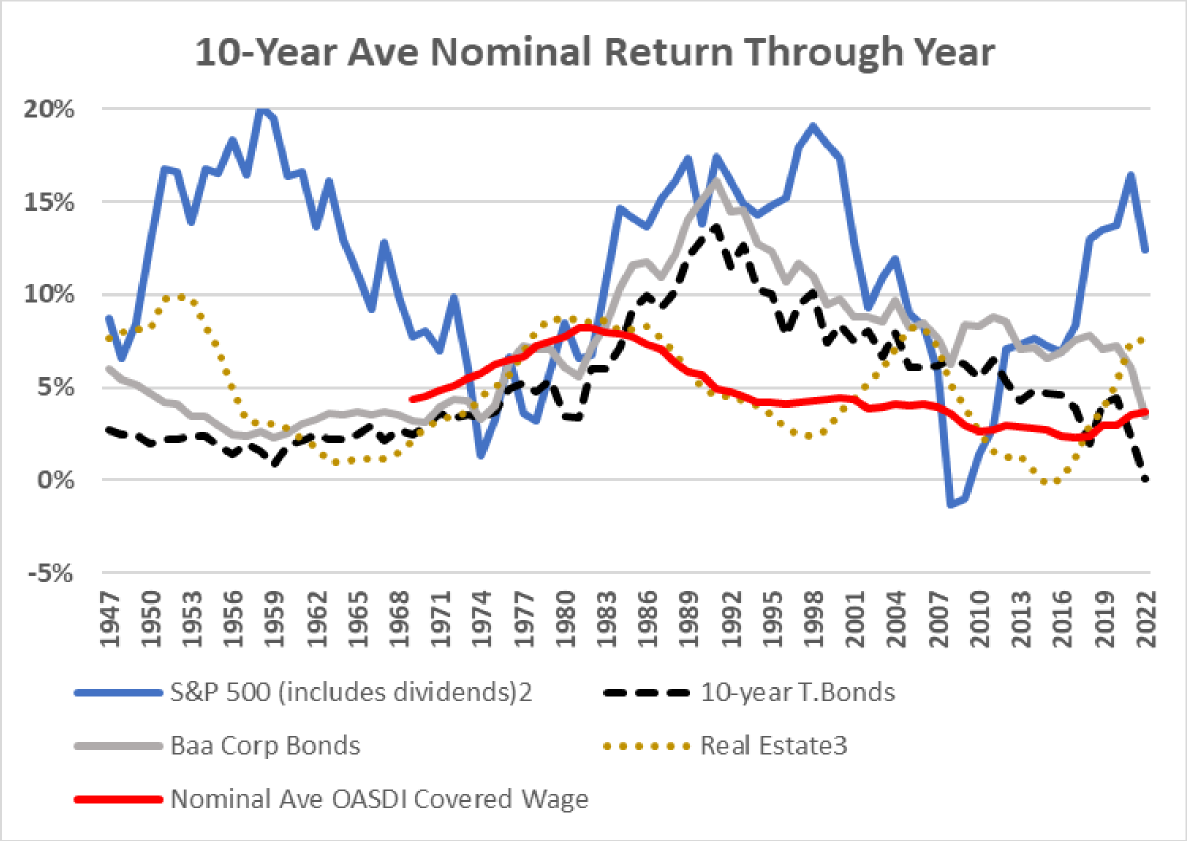
Other DB Pension Obligations also Influenced by Wage Growth

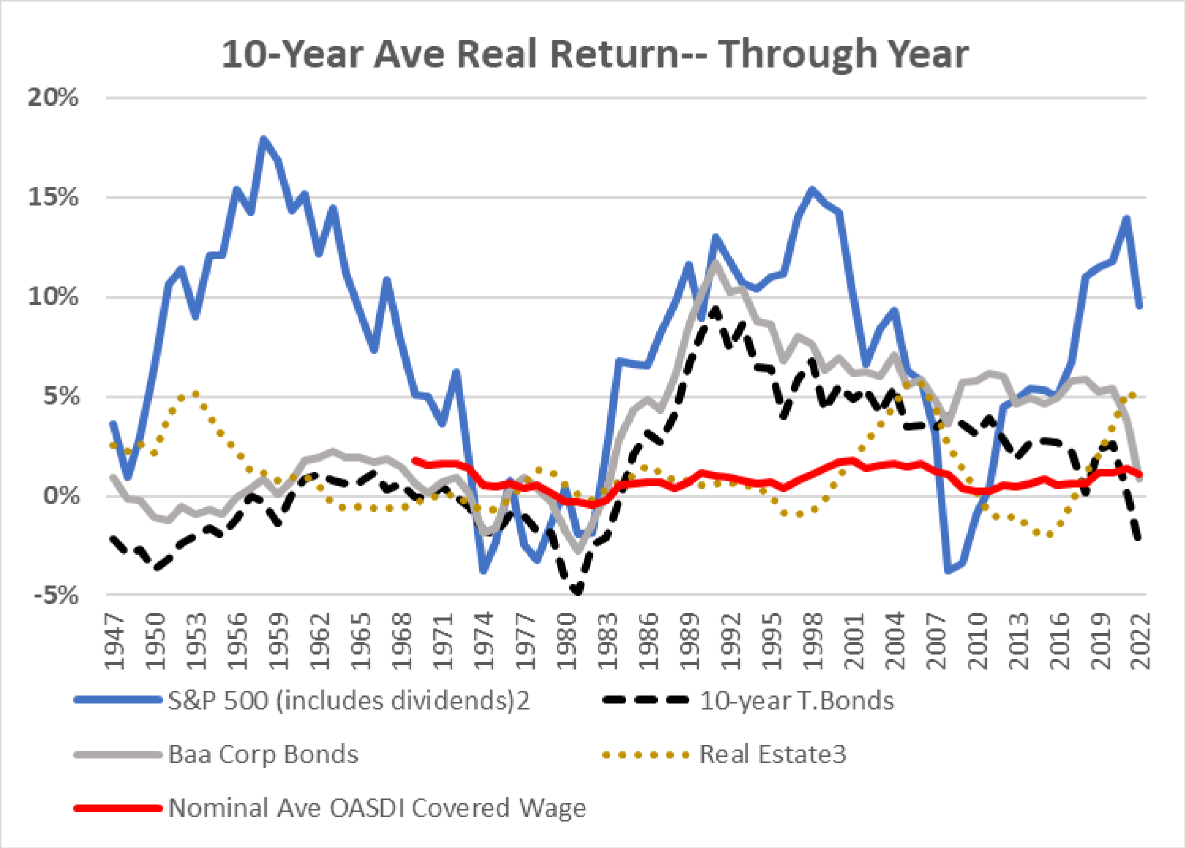
- For private and public pension plans (with pay-related accruals), as for Social Security, the level of pension payments will reflect wage levels near retirement
  - Payment levels affected by individual employee earnings levels
  - For Social Security, benefit levels for new retirees reflect also the average wage level of all workers in the year new retiree attains age 60
- So, it would be convenient if investment returns correlated with average wage gains (and, of course, exceed average wage gain)

10-Year Average Investment Returns

Not well correlated with increases in average wage levels

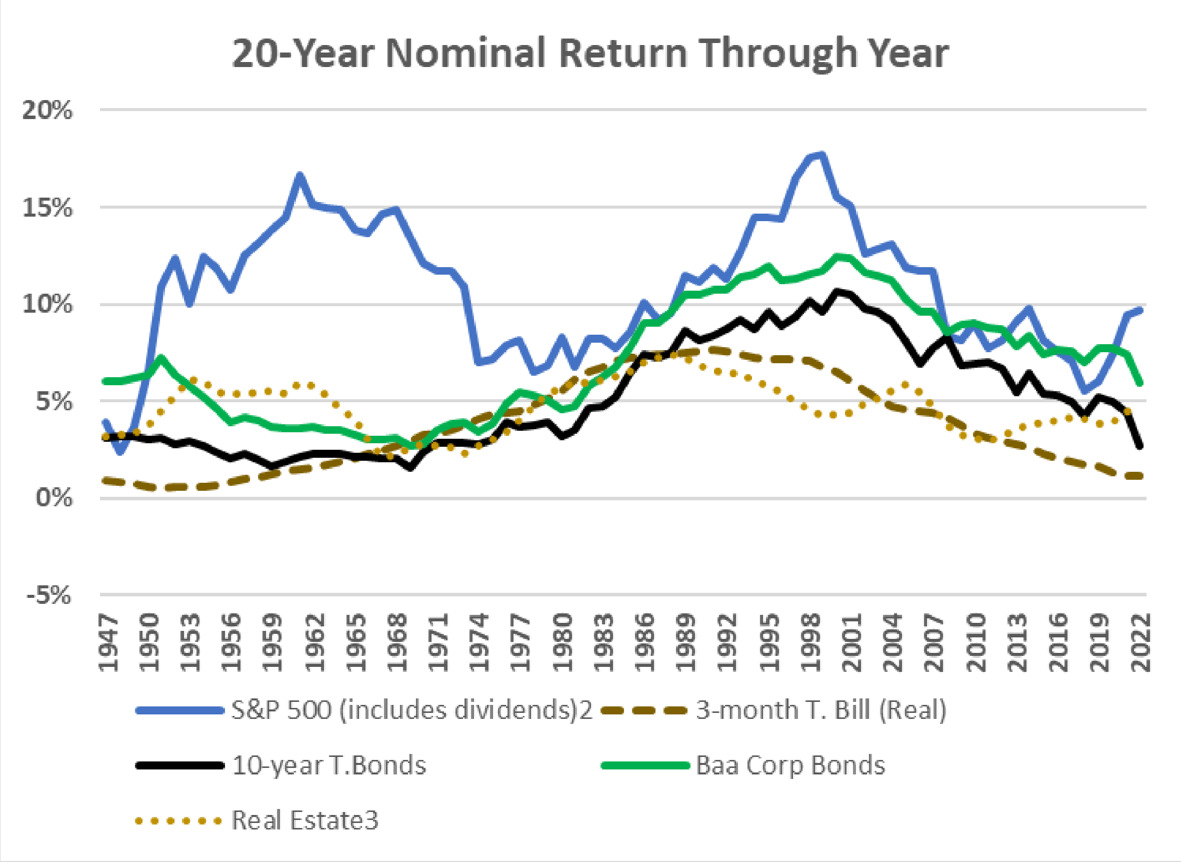
Source Invest Returns: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html

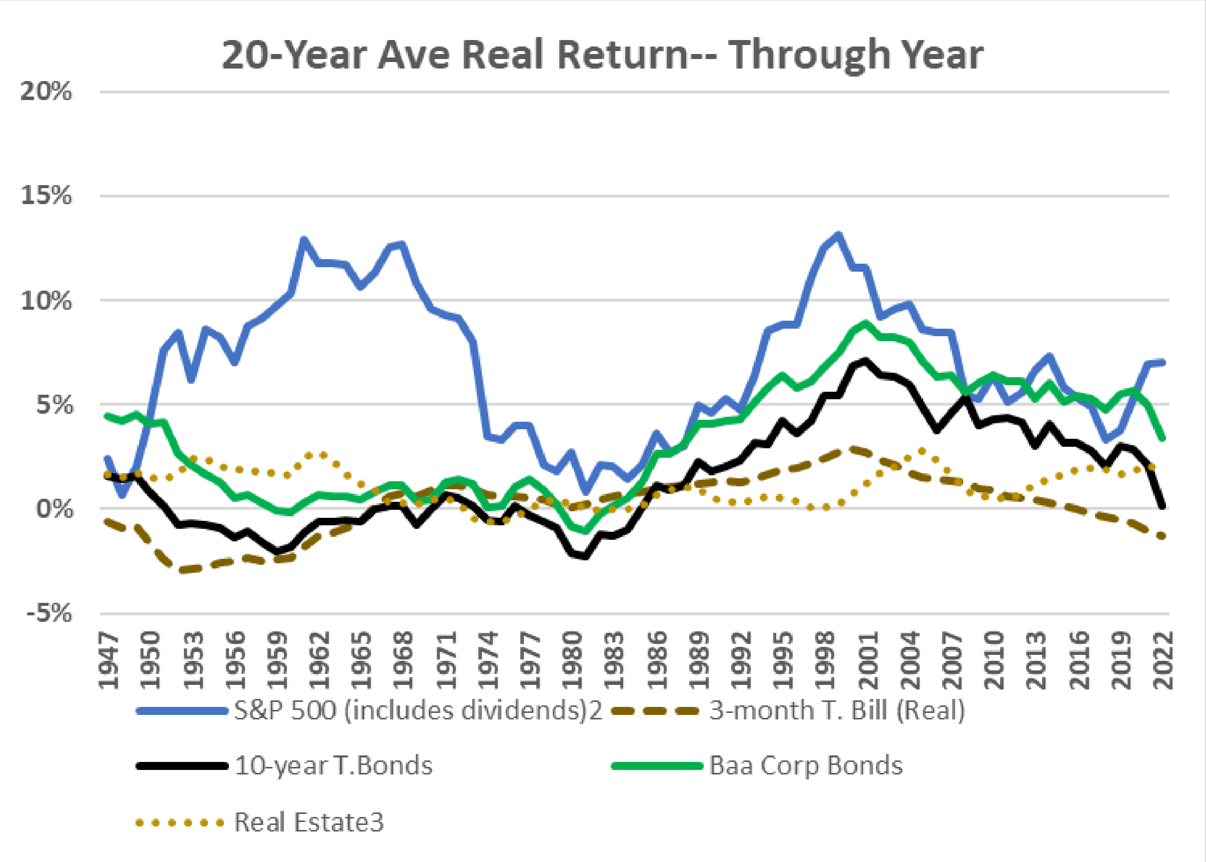




20-Year Average Investment Returns
Reduces Variability for Longer Holding

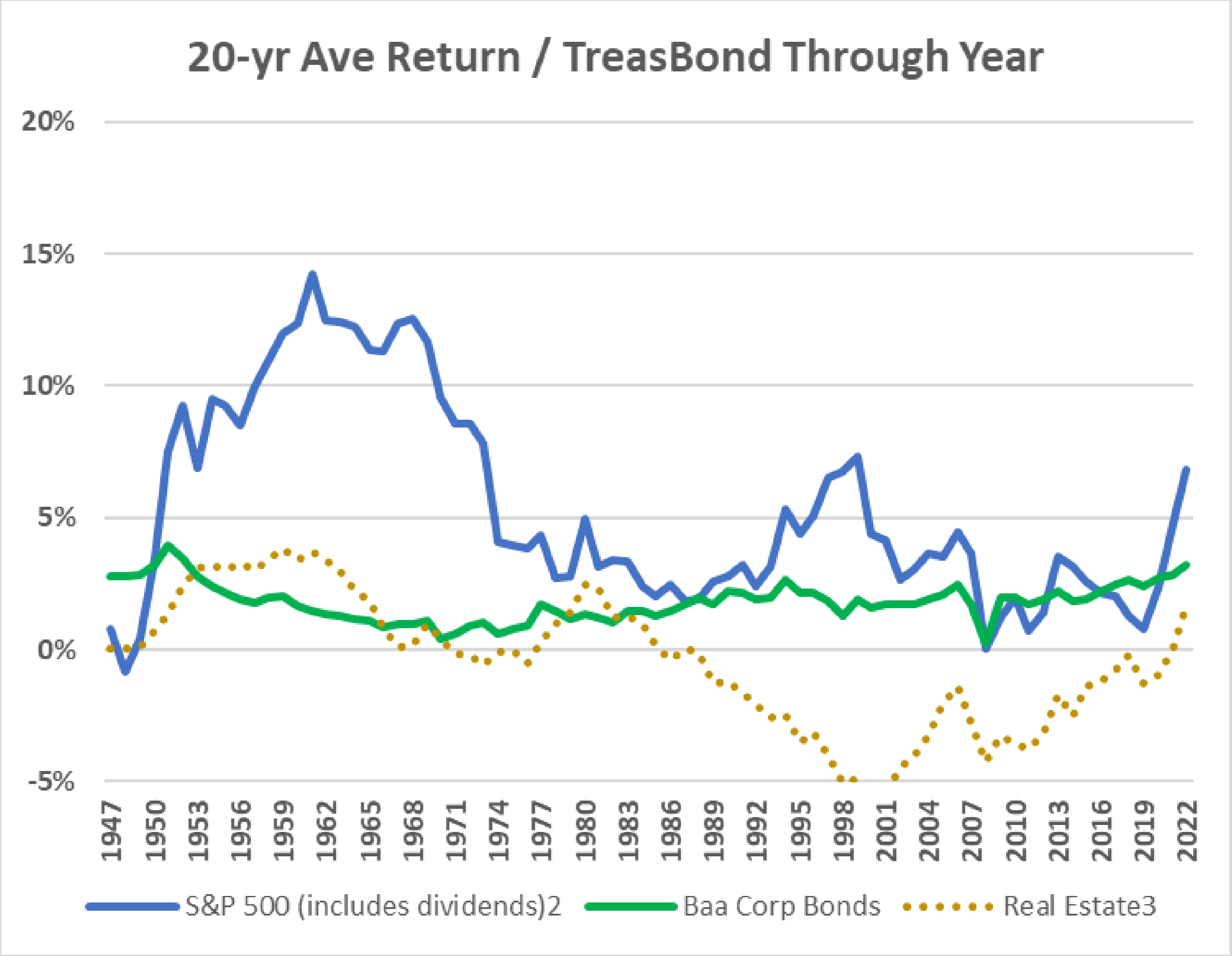
Source Invest Returns: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html





How do investment options look historically relative to 10-year Treasury Bonds required for Social Security?

For 20-year average returns, Corporate Bonds are consistently higher, Stocks generally superior, but volatility risk, and Real Estate questionable.



For very long holding variability greatly reduced. Does active management pay off? Or is just rebalancing superior?

Appears that our assumption of 350 basis points equity premium over 10-year Treasuries established back in the mid 1990's is still a reasonable choice