Strategies for Managing Sequence of Return Risk in Retirement

5.18.2017| NAPFA National

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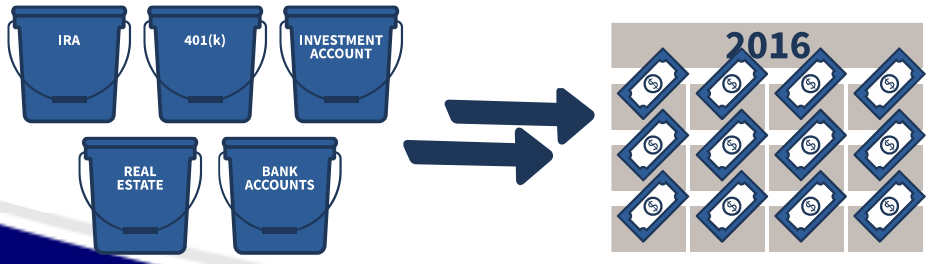
Basics of Safe Withdrawal Rates

- Fundamental client questions:
  - How much can I safely spend from this portfolio without needing to worry about the markets?



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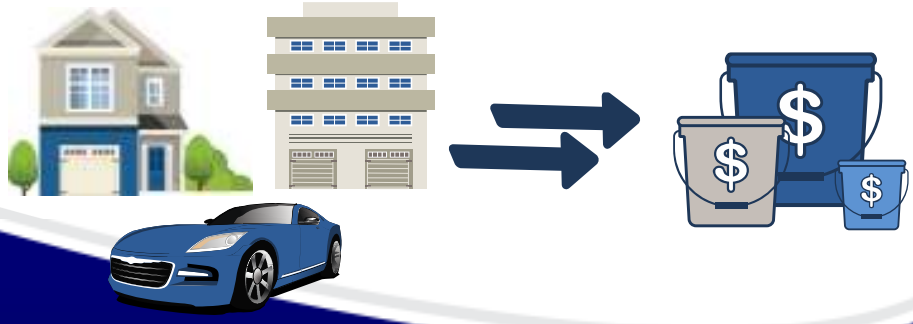
Basics of Safe Withdrawal Rates

- Fundamental client questions:
  - If I want to spend $XXX, how much money do I need in the account to safely retire?



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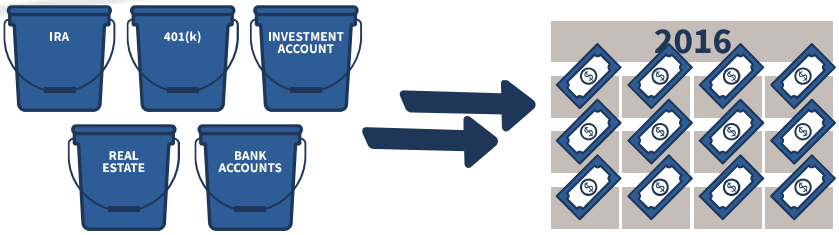
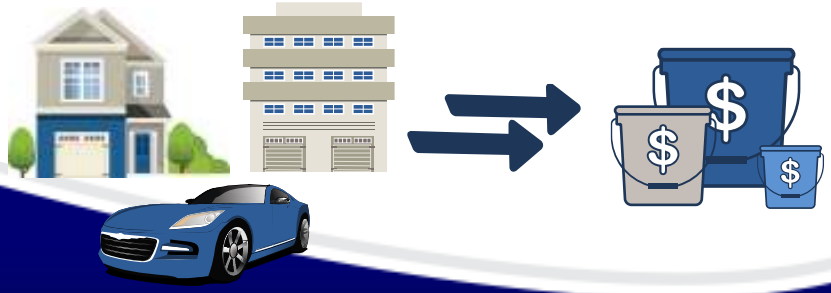
Basics of Safe Withdrawal Rates





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Basics of Safe Withdrawal Rates

BOND COUPONS | DIVIDENDS | CAPITAL GAIN | PRINCIPAL

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Linear Projections & Safe Spending

- Case example:
  - 60-year-old retiree for 30-year retirement
  - Inflation assumed to be 3%
  - 60% stocks, 40% bonds (rebalanced annually)
  - Stocks assumed to earn 10% (real 7%)
  - Bonds assumed to earn 5% (real 2%)
  - Average portfolio return 8% (real 5%)
  - Initial portfolio of $1,000,000

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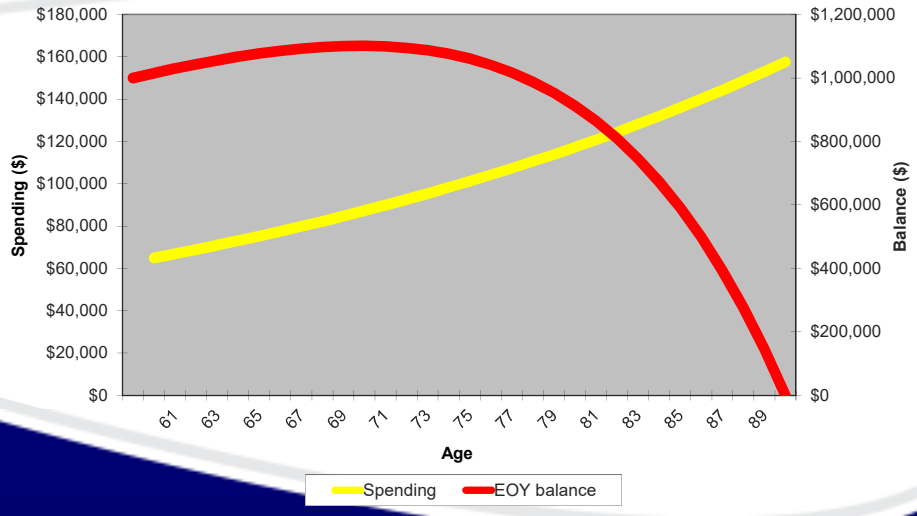
Linear Projections & Safe Spending



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Linear Projections & Safe Spending

Year	Initial Balance	Portfolio Growth	Portfolio Withdrawal	End of Year Balance
1	$1,000,000	$80,000	($65,895)	$1,014,105
2	$1,014,105	$81,128	($67,872)	$1,027,362
3	$1,027,362	$82,189	($69,908)	$1,039,643
4	$1,039,643	$83,171	($72,005)	$1,050,810
5	$1,050,810	$84,065	($74,165)	$1,060,709
6	$1,060,709	$84,857	($76,390)	$1,069,176
7	$1,069,176	$85,534	($78,682)	$1,076,028
8	$1,076,028	$86,082	($81,042)	$1,081,068
9	$1,081,068	$86,485	($83,474)	$1,084,080
10	$1,084,080	$86,726	($85,978)	$1,084,828
11	$1,084,828	$86,786	($88,557)	$1,083,057
12	$1,083,057	$86,645	($91,214)	$1,078,488
13	$1,078,488	$86,279	($93,950)	$1,070,817
14	$1,070,817	$85,665	($96,769)	$1,059,714
15	$1,059,714	$84,777	($99,672)	$1,044,819
16	$1,044,819	$83,586	($102,662)	$1,025,742
17	$1,025,742	$82,059	($105,742)	$1,002,060
18	$1,002,060	$80,165	($108,914)	$973,311
19	$973,311	$77,865	($112,181)	$938,994
20	$938,994	$75,120	($115,547)	$898,567
21	$898,567	$71,885	($119,013)	$851,439
22	$851,439	$68,115	($122,584)	$796,970
23	$796,970	$63,758	($126,261)	$734,466
24	$734,466	$58,757	($130,049)	$663,175
25	$663,175	$53,054	($133,951)	$582,278
26	$582,278	$46,582	($137,969)	$490,891
27	$490,891	$39,271	($142,108)	$388,054
28	$388,054	$31,044	($146,371)	$272,727
29	$272,727	$21,818	($150,763)	$143,783
30	$143,783	$11,503	($155,285)	$0

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Linear Projections & Safe Spending

- Question: How much can be safely spent?
- Answer: $65,895, or about 6.6%

- Is 6.6% the "safe withdrawal rate"?
  - Safe withdrawal rate versus Initial withdrawal rate

- Primary Challenge:
  - Assumes returns are the same each and every year

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Return Sequencing

- Consequences of return sequencing:
  - What happens if the *average* return of stocks is 10%, but the returns vary from year to year?
  - What if the first two years are 0%, and the last two are 20%?
  - What if the first two years are 20%, and the last two are 0%?

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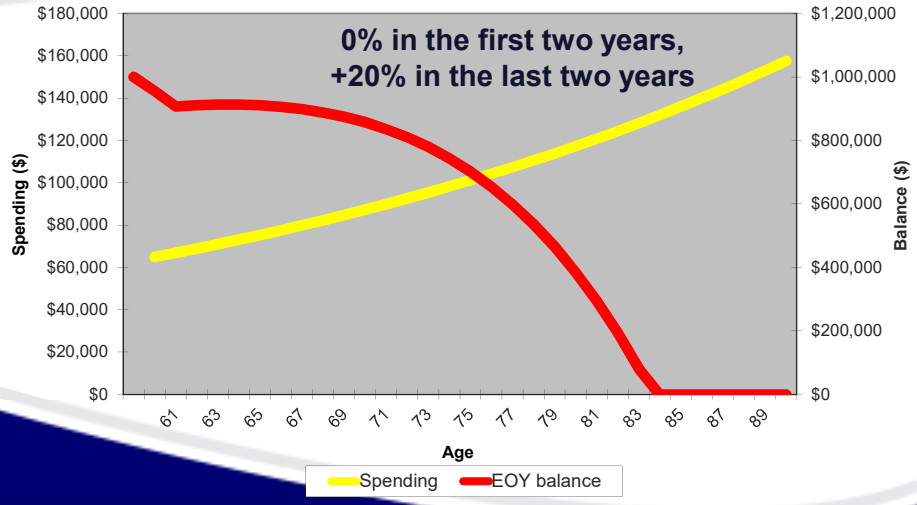
Linear Projections & Safe Spending



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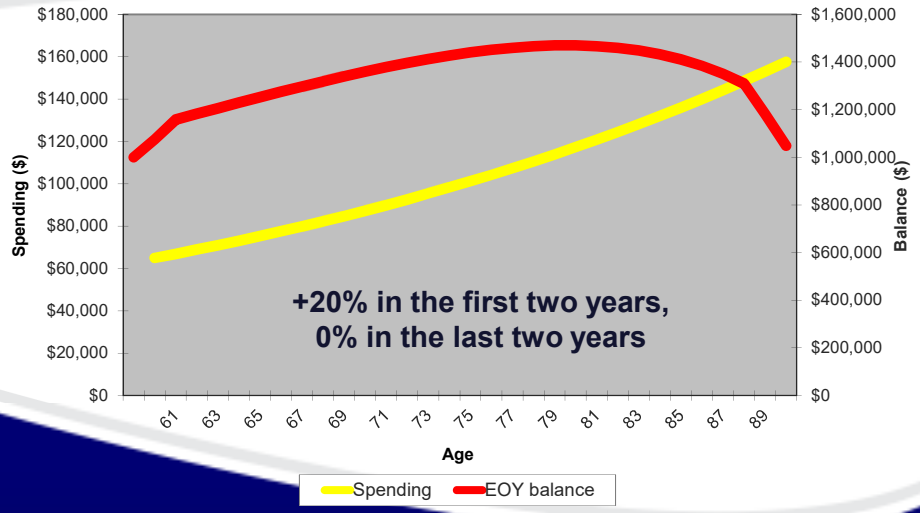
Linear Projections & Safe Spending



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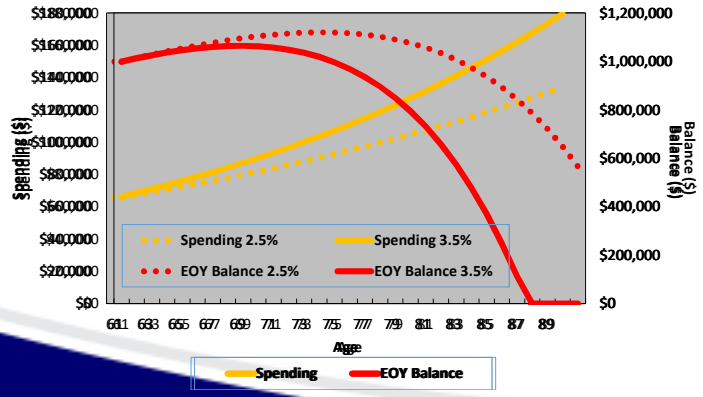
Return Sequencing

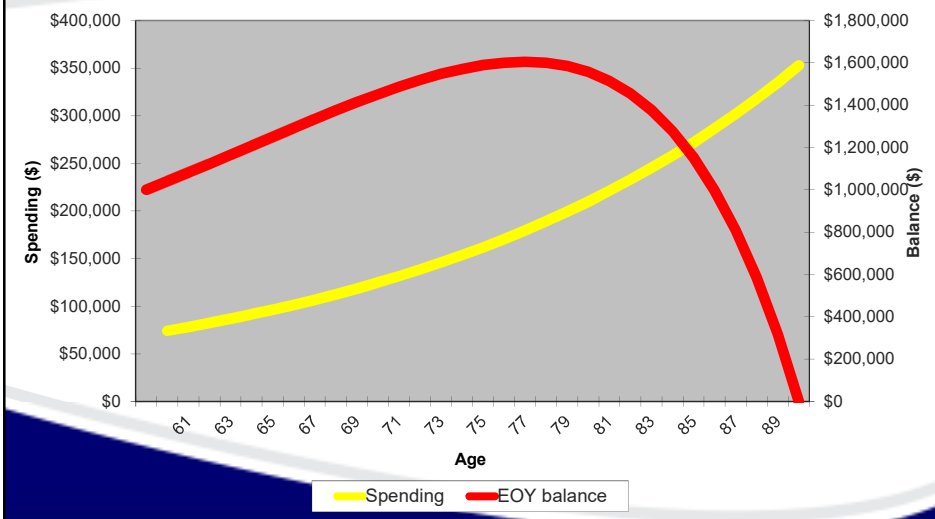
- Consequences of return sequencing:
  - What happens if inflation varies as well?



Return Sequencing

- Retiree environment from 1969 to 1999
  - Inflation: 5.33%
  - Equities (S&P 500): 13.39% (8.06% real)
  - Bonds (5-year Treas.): 8.62% (3.29% real)
- What is the (linear) safe withdrawal rate?
  - 60% equities, 40% fixed portfolio
  - Average portfolio return: 11.48%

Linear Projections & Safe Spending



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Linear Projections & Safe Spending

- Question: How much can be safely spent with 1969-1999 returns?
- Answer: $74,308, or about 7.4%!
- What happens when we take into account the order of returns and inflation?

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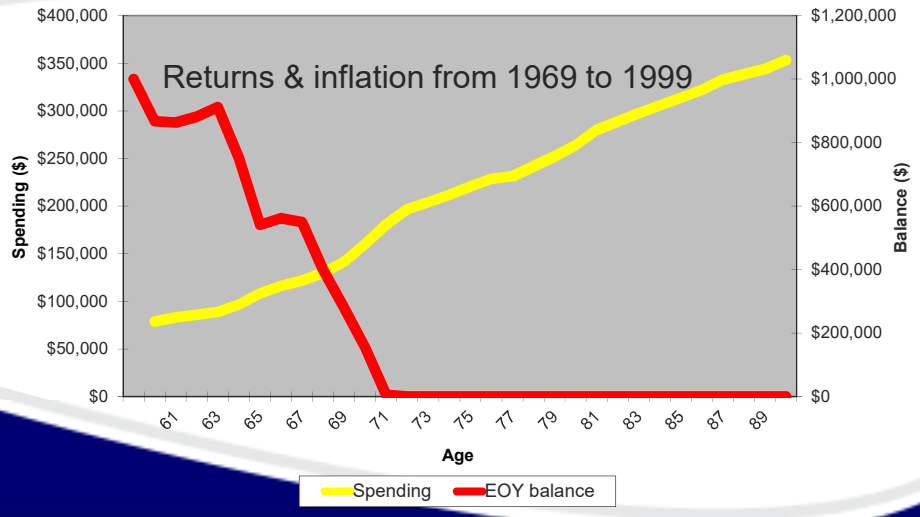
Linear Projections & Safe Spending



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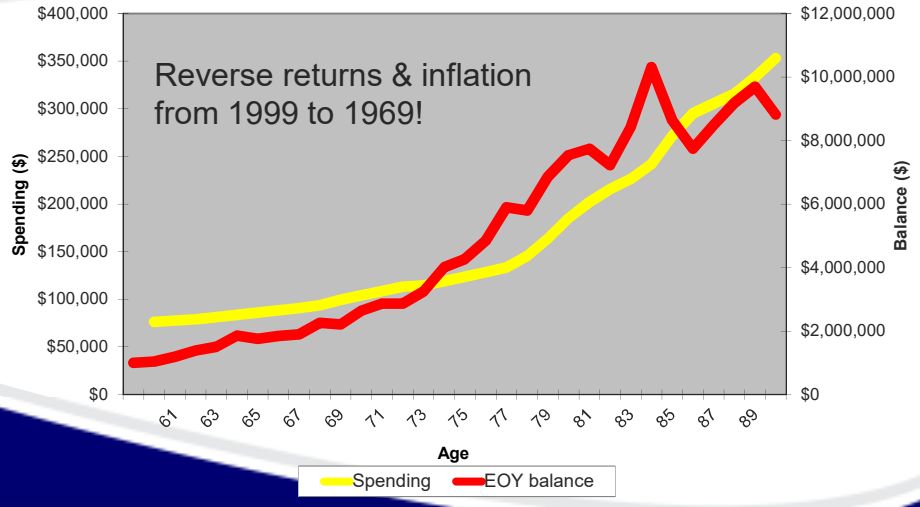
Linear Projections & Safe Spending



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Return Sequencing

- The sequences of returns matter, a lot!
- Disparities in the early years have a magnified effect over time!
- The extent of volatility matters too!
- It's not just about early crashes…
  - But slow recoveries!
  - Or extended periods of low returns!

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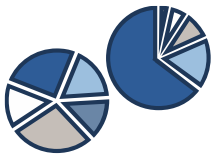
Managing Sequence Risk

- How do you manage sequence-of-return risk?

Safe Withdrawal Rates



Dynamic Asset Allocation

Dynamic Spending Strategies

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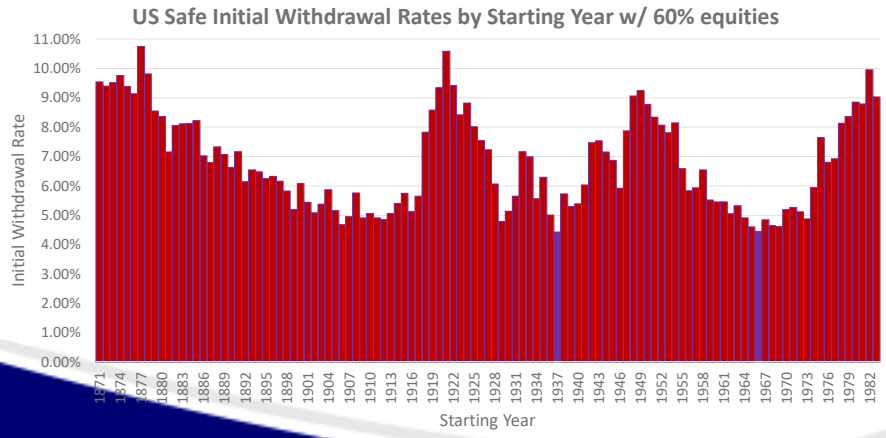
Safe Withdrawal Rates (SWR)

- What is the Safe Withdrawal Rate (SWR) approach?



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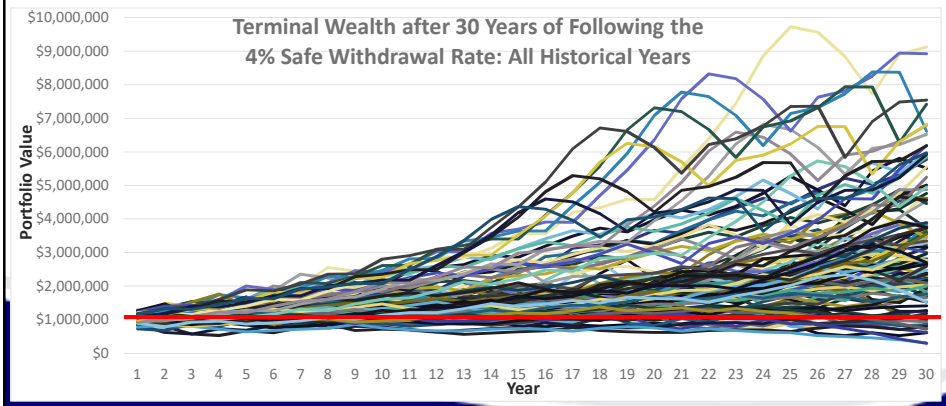
Safe Withdrawal Rates (SWR)

- Usually you don't need to be "this" conservative?
  - But you do it anyway, "just in case"!



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Safe Withdrawal Rates (SWR)

- Current research summary:

Base Withdrawal Rate	4.0% - 4.5%
Adjustments	
Fees/Alpha	-1% to 1%
Taxes	-0.25% to -0.75%
Legacy/Longevity Hedge	0% to -0.4%
Time Horizon	-0.5% to 1%
Diversification	0.5% to 1%
Spending Flexibility	0% to 1%
Risk Tolerance	0% to 1%
Valuation Environment	0% to 1%
Tactical Asset Allocation	0% to 0.2%
Final Withdrawal Rate	**Sum Total of Adjustments**

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Dynamic Asset Allocation

- Managing sequence risk via asset allocation strategies

Bucket Strategies

Annuitization Floor

Rising Equity Glidepath

Valuation-Based Asset Allocation

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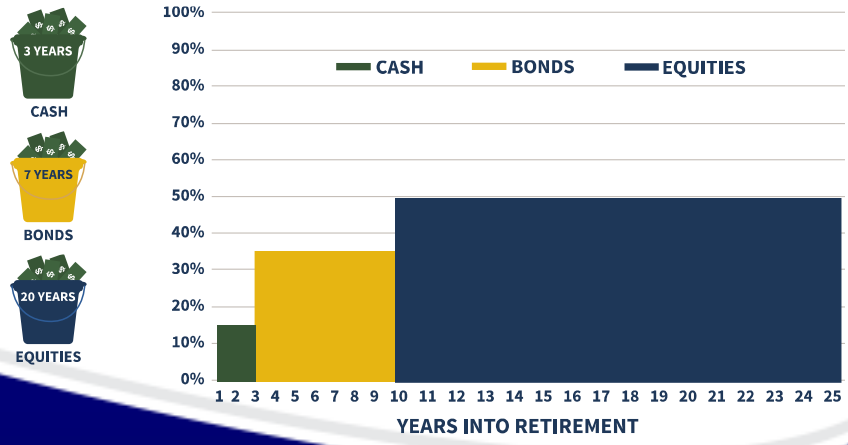
The Retirement Bucket Approach

- Segment retirement spending needs into three buckets



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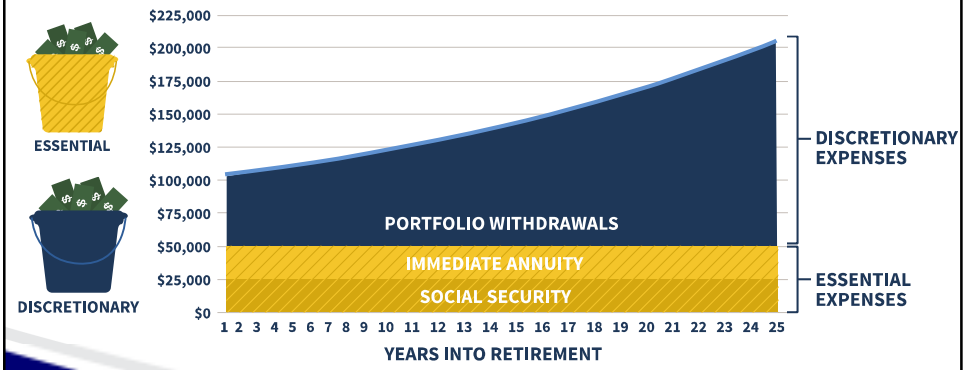
The Annuity Bucket Approach

- Annuity alternatives to the "traditional" bucket strategy



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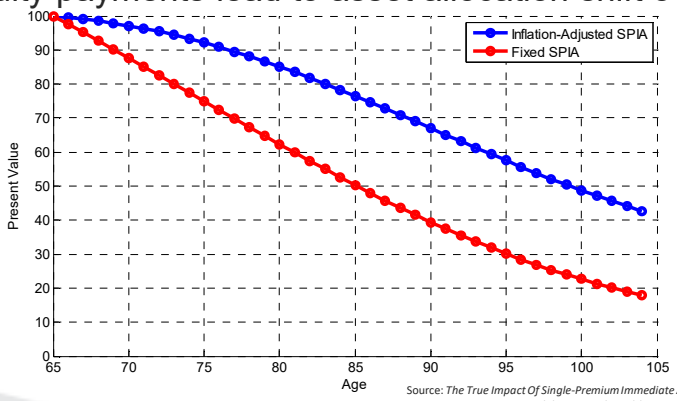
The Annuity Bucket Approach – Over Time

- Annuity payments lead to asset allocation shift over time



Source: *The True Impact Of Single-Premium Immediate Annuities On Retirement Sustainability: A Total Wealth Perspective* by Michael Kitces & Wade Pfau

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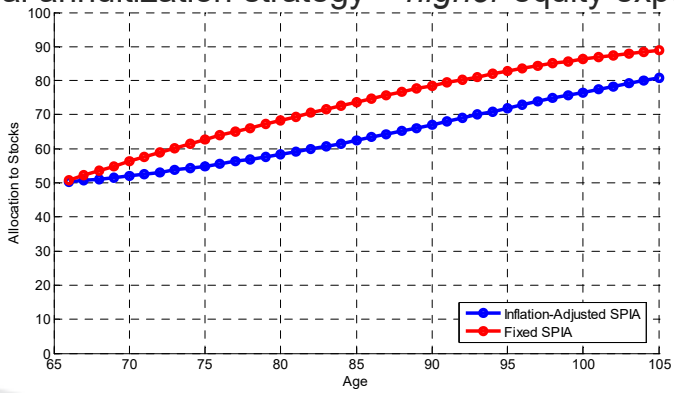
The Annuity Bucket Approach – Over Time

- Partial annuitization strategy = *higher* equity exposure!



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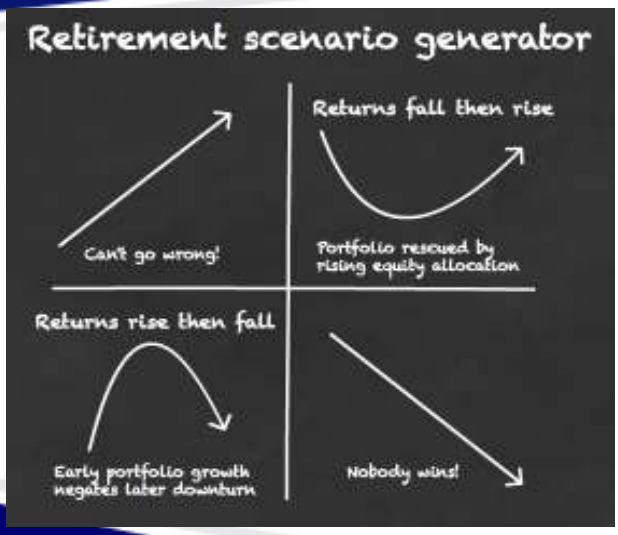
Rising Equity Glidepaths



Source: Monevator blog - http://monevator.com/buy-shares-in-retirement/

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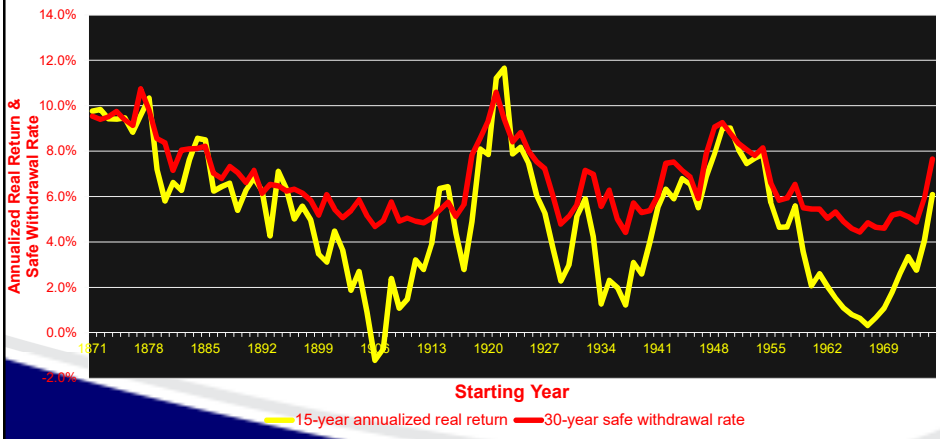
Early Returns & SWR

- The SWR is heavily influenced by early returns

Annualized real returns of 60/40 for 15 years vs. 30-yr safe withdrawal rate



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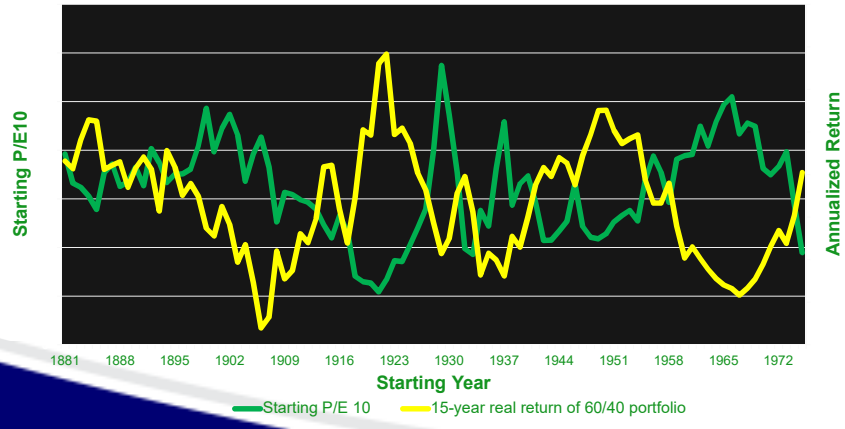
Forecasting Market Returns

- P/E ratios strongly related to subsequent returns

Starting P/E 10 vs. subsequent 15-year return of balanced portfolio



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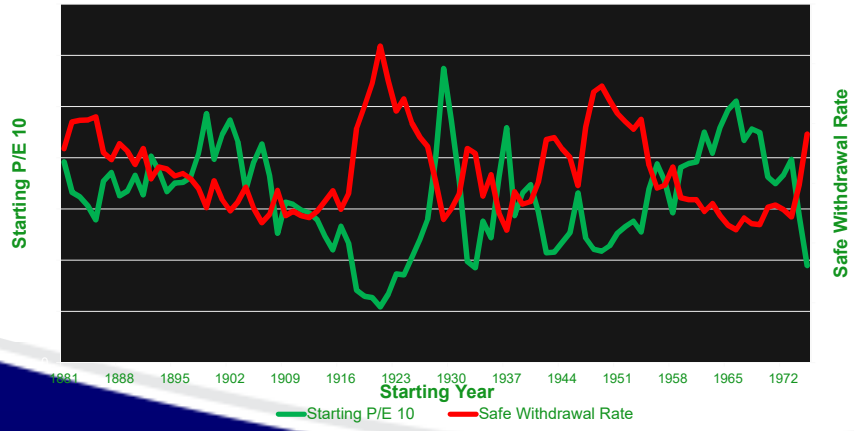
Forecasting Safe Withdrawal Rates

- Using P/E ratios to predict safe withdrawal rates

Starting P/E 10 vs. Safe Withdrawal Rate over subsequent 30-year period



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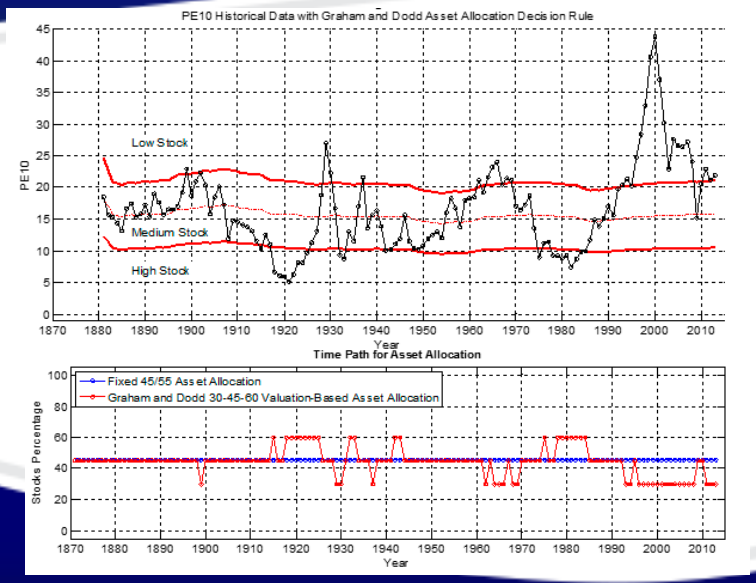
Valuation-Based Allocations



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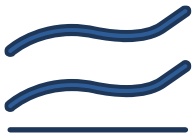
Dynamic Spending Strategies

- Managing sequence risk via dynamic spending

Spending Ratchets



Floor/Ceiling Guardrails

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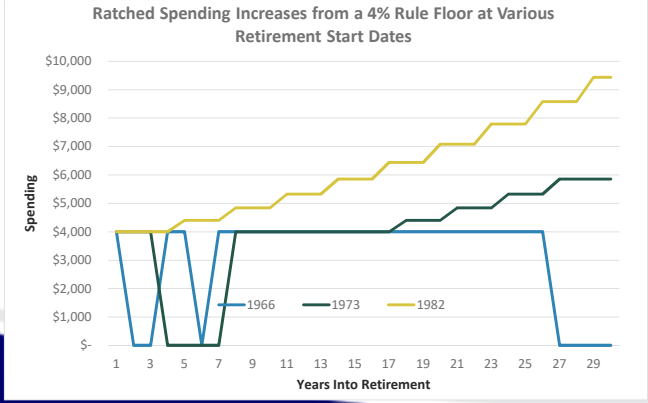
Ratcheted Spending

- Start with a "SWR base" but ratchet higher
  - Most years will do better, simply need a target threshold!



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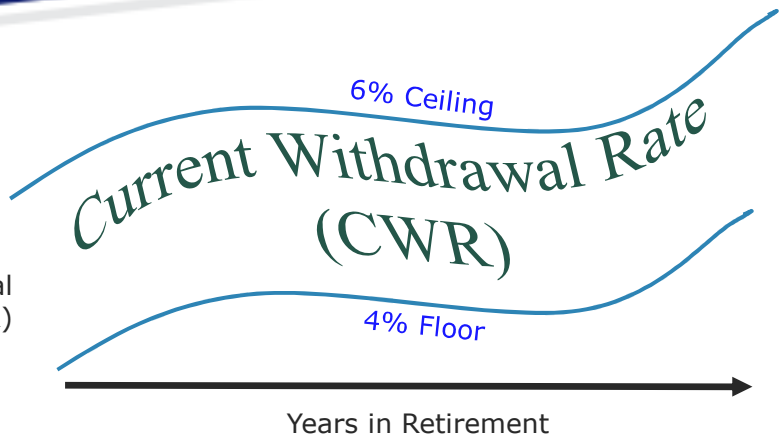
Dynamic Spending Strategies



5% Initial Withdrawal Rate (IWR)

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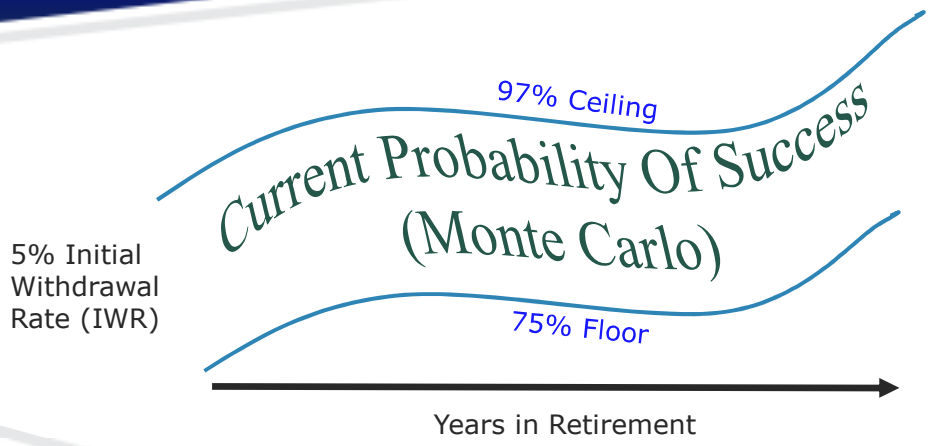
Dynamic Spending Strategies



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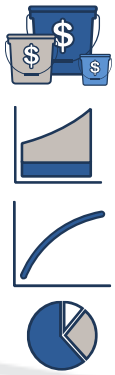
Strategies For Sequence Risk

- Setting A Strategy To Manage Sequence Risk

Safe Withdrawal Rates

Dynamic Asset Allocation



Dynamic Spending

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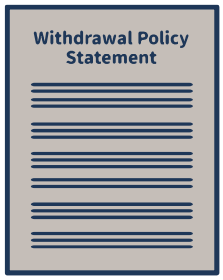
The Withdrawal Policy Statement

- Crafting A Withdrawal Policy Statement



1. Income goals (how much?)
2. Available assets (what will we use?)
3. The initial withdrawal rate;
4. Liquidation/sourcing methodology (interest/dividends/capital gains; account types)
5. Adjustment triggers (thresholds & magnitudes)

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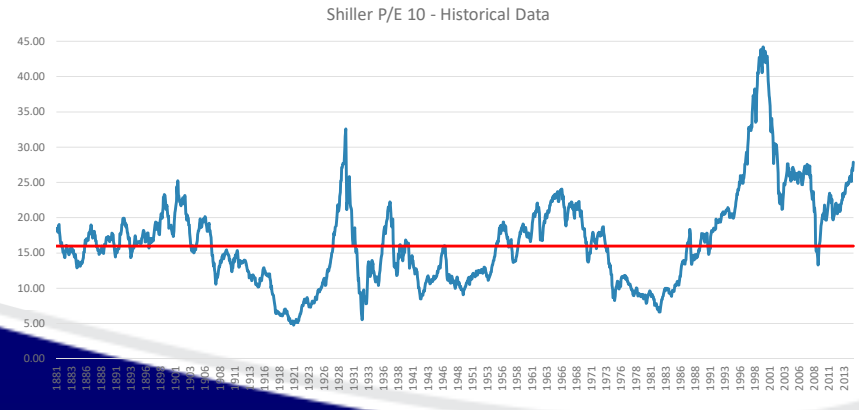
Managing Sequence Risk Today

Today's Environment:

High Valuation… AND Low Yields!?



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The Withdrawal Policy Statement

- What's Your Plan For Managing Sequence Risk?

Safe Withdrawal Rates | **Dynamic Asset Allocation** | **Dynamic Spending**

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Questions?

Handouts & additional materials:
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