HOW TO PLAN USING SCENARIO 2.21

(Fixed percentage 4.5%, 35 years, tax-adv, fixed 65%/30%/5% stks/bnds/cash, Legacy: $0)

Values of the Eight Elements in this scenario are as follows:

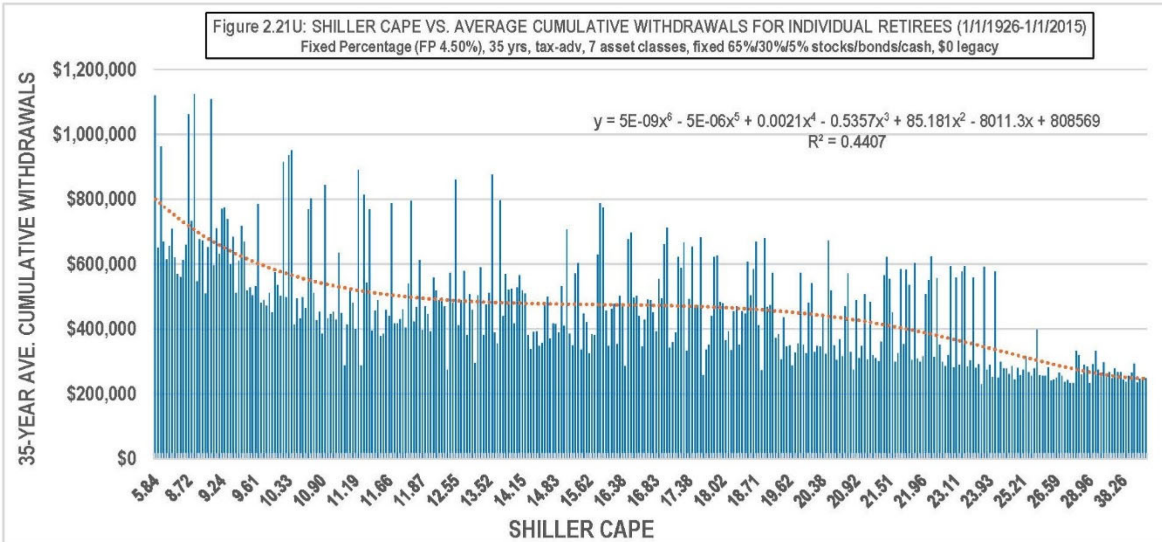
Withdrawal Scheme: Fixed Percentage 4.5%. To compute the first year's withdrawal, multiply the beginning portfolio value by 4.5%. For subsequent year withdrawals, multiply the beginning portfolio value for that year by 4.5%.
Planning Horizon: 35 years.
Account type: Tax-advantaged.
Legacy: indeterminate, but guaranteed. The account balance at the end of the planning horizon. With the FP withdrawal scheme, there is always an account balance at the end of the planning horizon, although if the withdrawal rate is high enough, it may be vanishigly small.
Asset Allocation: 7 asset classes, including US Large-Cap stocks (start 13%), US Small-Cap stocks (start 13%), US Micro-Cap stocks (start 13%), US Mid-Cap stocks (start 13%), International stocks (start 13%), US Treasury Bills (fixed 5%), and US 5-year government bonds (start 30%). Asset allocation is fixed.
Portfolio Rebalancing Frequency: 1 year. The interval between "rebalancing" of the portfolio to the desired investment allocation.
Investment returns: as per the appropriate index fund. No attempt is made to "beat the market."
Withdrawal timing: evenly spaced. Withdrawals are assumed to be made at regular intervals, possibly monthly or quarterly.

Figure 2.21U: Shiller CAPE vs average 35-year cumulative withdrawals for 4.5% withdrawal rates. The Fixed Percentage withdrawal scheme is a very strange bird, compared to alternatives like the COLA withdrawal system. For one thing, we can't use Current Withdrawal Rate (CWR) to measure the success of any particular initial withdrawal rate, as in theory the portfolio never runs out of money.

In place of CWR, I have elected to use the metric "Cumulative Withdrawals" (CW), the sum of all withdrawals made for the entire planning horizon. Since our primary concern is the highest level of income, maximizing CW makes sense.

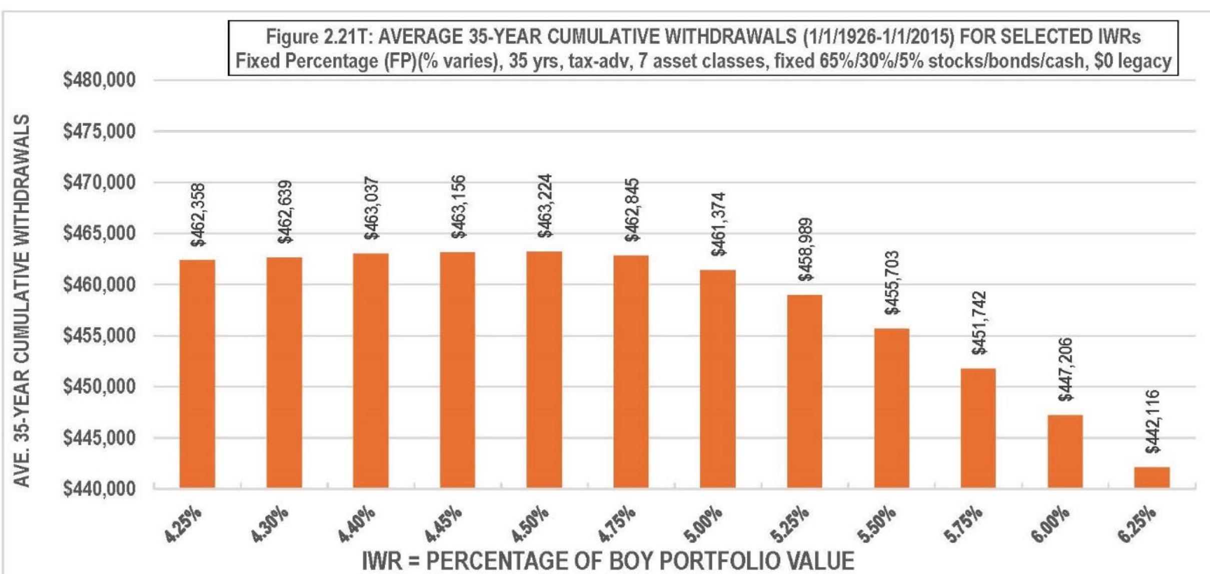
In Figure 2.21U, Shiller CAPE is plotted against average cumulative withdrawals for a 4.5% IWR. The average cumulative withdrawals is computed for all retirees between 1/1/1926 and 1/1/2015.

Unfortunately, as shown in Figure 2.21U, the correlation between Shiller CAPE and cumulative withdrawals is quite weak, less than 45%. That means we really can't use



Shiller CAPE to maximize withdrawals, as we did with the COLA withdrawal system. We also can't use the second factor in our two-factor model, inflation, because FP withdrawals do not incorporate it. Dilemma!

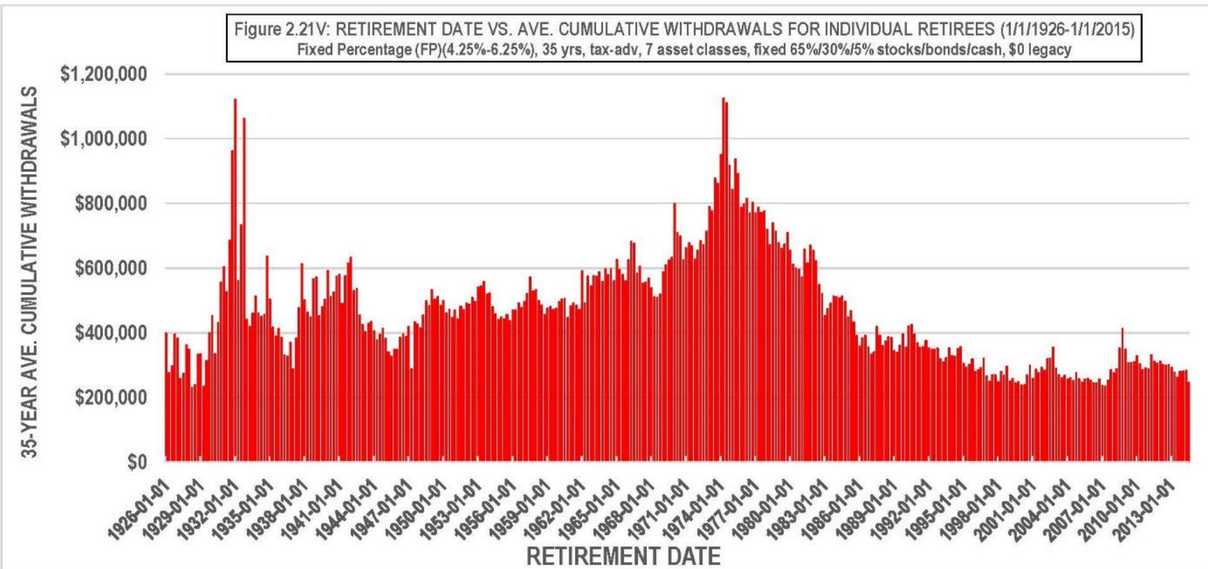
Figure 2.21T: Average 35-year cumulative withdrawals for various withdrawal rates. This figure highlights another peculiarity of the FP withdrawal system. This figure displays the average cumulative withdrawals (across 357 retirees) over a 35-year planning horizon for a range of initial withdrawal rates from 4.25% to 6.25%.



Clearly, this chart has a “peak” around the 4.5% initial withdrawal rate; cumulative withdrawals decline for both higher and lower withdrawal rates. This counterintuitive behavior is an integral part of the FP withdrawal scheme. I have used the 4.5% IWR suggested by this figure for this retirement scenario.

Note also that the range of cumulative withdrawals is relatively narrow across all initial withdrawal rates, varying by less than 5%. Thus, it’s tough to make a mistake when choosing an IWR, as the results are almost all the same!

Figure 2.21V: Retirement date vs. average 35-year cumulative withdrawals for various withdrawal rates (4.25% through 6.25%). Of course, we’ve been dealing with average performance; the results vary widely depending on retirement date. This figure presents the average cumulative withdrawals for 357 retirees for a range of withdrawal rates. There are two very prominent peaks on this chart, corresponding to the end of 1929-1932 bear market, and the end of the 1974-1975 bear market. Notice also the very wide range of outcomes, with the peaks four to five times higher than the troughs. The FP withdrawal scheme is like a box of chocolates!



Scenario 2.21 Portfolio Value Curve Generator
Remember, a Retirement Withdrawal Plan is not forever. It may require adjustments during retirement. The Excel spreadsheet titled “Scenario 2.21 Synthetic Portfolio Value Curve Generator” helps you develop a benchmark curve against which you can measure the actual performance of your plan. Complete instructions are included in the “Guide” tab of the spreadsheet.

Note that, instead of CWR or CW, I have used yet another metric against which to measure the performance of your own portfolio: year-end portfolio value (PV). This is probably the best metric for assessing whether you need to adjust your withdrawals. A rapidly growing PV is favorable for increasing withdrawals.

Note also the large portfolio balances, which are forecast by the PV Curve generator. These are lower than they seem, due to the cumulative effects of inflation.

Please consult my book, “A Richer Retirement,” for further details.

GOOD LUCK WITH YOUR RETIREMENT WITHDRAWAL PLANNING!