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The 4 Percent Rule is Not Safe in a Low-Yield World

15 Pages

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Abstract

The safety of a 4% initial withdrawal strategy depends on asset return assumptions. Using historical averages to guide simulations for failure rates for retirees spending an inflation-adjusted 4% of retirement date assets over 30 years results in an estimated failure rate of about 6%. This modest projected failure rate rises sharply if real returns decline. As of January 2013, intermediate-term real interest rates are about 4% less than their historical average. Calibrating bond returns to the January 2013 real yields offered on 5-year TIPS, while maintaining the historical equity premium, causes the projected failure rate for retirement account withdrawals to jump to 57%. The 4% rule cannot be treated as a safe initial withdrawal rate in today's low interest rate environment. Some planners may wish to assume that today's low interest rates are an aberration and that higher real interest rates will return in the medium-term horizon. Although there is little evidence to support this assumption, we estimate how a reversion to historical real yields will impact failure rates. Because of sequence of returns risk, portfolio withdrawals can cause the events in early retirement to have a disproportionate effect on the sustainability of an income strategy. We simulate failure rates if today's bond rates return to their historical average after either 5 or 10 years and find that failure rates are much higher (18% and 32%, respectively for a 50% stock allocation) than many retirees may be willing to accept. The success of the 4% rule in the U.S. may be an historical anomaly, and clients may wish to consider their retirement income strategies more broadly than relying solely on systematic withdrawals from a volatile portfolio.

Keywords: retirement, systematic withdrawals, 4% rule, safe withdrawal rates**JEL Classification:** C15, D14, G11, G17[Suggested Citation](#) >[Show Contact Information](#) >[Download This Paper \(Delivery.cfm/SSRN_ID2201323_code388906.pdf?abstractid=2201323&mirid=1\)](https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=57590)[Open PDF in Browser \(Delivery.cfm/SSRN_ID2201323_code388906.pdf?abstractid=2201323&mirid=1&type=2\)](https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=57590)

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