

AI-04603 2M Decumulation Strategy

How long will \$2 million last if I begin withdrawals at age 60? My goal is not to deplete the account completely, but to reduce the \$2 million to approximately \$1,000,000 by the end of my lifetime.

I want to model this specifically as a \$2 million decumulation engine from age 60 to approximately age 90. Rather than assuming a perfectly smooth 10% annual return, I would like to test withdrawal rates of 8%, 9%, 10%, 11% and 12% against variable, FTEC-like investment returns.

The objective is to determine:

How much annual income each withdrawal rate could provide.

How long the \$2 million would last under different market-return scenarios.

The impact of sequence-of-returns risk and volatile FTEC-like returns.

The projected portfolio value at ages 70, 80, and 90.

Whether each withdrawal rate can realistically achieve my target of approximately \$1,000,000 remaining at age 90.

The key question is: What annual withdrawal rate gives me the best balance between maximizing spending from age 60 onward and preserving approximately \$1,000,000 of capital by age 90?

To model your **\$2,000,000 decumulation strategy from age 60 to age 90**, we need to look at both **smooth baseline compound growth** and the real-world impact of **high-volatility technology sector ETF returns (such as FTEC)**.

1. Annual Income Matrix (Age 60 Base)

Your starting capital of **\$2,000,000** translates to the following fixed annual and monthly gross distributions at each withdrawal rate:

Withdrawal Rate	Annual Income	Monthly Income	Net Target Balance at Age 90
8%	\$160,000	\$13,333	\$1,000,000+ (Highly Achievable)
9%	\$180,000	\$15,000	\$1,000,000+ (Achievable with moderate returns)
10%	\$200,000	\$16,667	\$2,000,000 (Capital Preserved if return = 10%)
11%	\$220,000	\$18,333	Depletion Risk before Age 87
12%	\$240,000	\$20,000	High Depletion Risk before Age 78

2. Interactive Decumulation Simulator

Use the interactive simulation widget below to test how different portfolio return assumptions impact your ending capital across **8% (\$160k/yr)**, **10% (\$200k/yr)**, and **12% (\$240k/yr)** fixed withdrawal strategies over 30 years.

3. Projected Portfolio Trajectories (Ages 70, 80, and 90)

Assuming a **baseline 10% average annualized net return** (a standard baseline benchmark for broad/tech equity growth over 30 years), here is how your portfolio balance evolves:

Withdrawal Rate	Age 60 (Start)	Age 70 (Year 10)	Age 80 (Year 20)	Age 90 (Year 30)	Target (\$1M at 90) Met?
8% (\$160k/yr)	\$2,000,000	\$2,637,000	\$4,291,000	\$8,580,000	Exceeded (Grows significantly)
9% (\$180k/yr)	\$2,000,000	\$2,318,000	\$3,145,000	\$5,290,000	Exceeded
10% (\$200k/yr)	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	Exceeded (Principal intact)
11% (\$220k/yr)	\$2,000,000	\$1,682,000	\$855,000	\$0 (Depleted Age 87)	Failed
12% (\$240k/yr)	\$2,000,000	\$1,363,000	\$0 (Depleted Age 78)	\$0	Failed

What annualized return is needed to leave exactly \$1,000,000 at Age 90?

- **8% Withdrawal (\$160k):** Requires a net average annual return of **7.5%**.
- **9% Withdrawal (\$180k):** Requires a net average annual return of **8.6%**.
- **10% Withdrawal (\$200k):** Requires a net average annual return of **9.7%**.

4. Sequence-of-Returns Risk (SORR) & FTEC Volatility

While tech-heavy index funds like **FTEC** historical total returns average well above 10–12% over long horizons, their **standard deviation (~18%–22%)** introduces critical **Sequence-of-Returns Risk**:

1. **The Dollar-Liquidation Trap:** In decumulation, forced fixed-dollar withdrawals during market drawdowns permanently erode share counts.
2. **Early Bear Market Scenario:**
 - If FTEC experiences a **-25% drawdown in Year 1** and **-10% in Year 2** (similar to 2000–2002 or 2022 tech contractions), a **10% fixed withdrawal (\$200,000)** shrinks the portfolio from \$2,000,000 down to **~\$970,000 by Year 3**.
 - Once reduced to \$970k, continuing a \$200,000 annual withdrawal represents a **20.6% effective withdrawal rate**, causing complete portfolio failure by age 72–74 even if tech markets soar later in the decade.

5. Optimal Recommendation

To maximize annual income from age 60 while guaranteeing at least **\$1,000,000 remaining at age 90**, the sweet spot is an **8% to 9% Initial Rate (\$160,000–\$180,000/year)** paired with structural risk controls:

- **Implement Dynamic Variable Withdrawals (Guardrails):** Instead of taking a fixed \$200k every year regardless of market conditions, adopt a dynamic rule (e.g., reducing income by 10% following any year FTEC drops by more than 15%).
- **Maintain a Cash / Short-Term Buffer:** Keep 2 to 3 years of living expenses (\$320k–\$400k) in short-term Treasuries or cash equivalents so you never sell FTEC shares at a loss during major tech downturns.