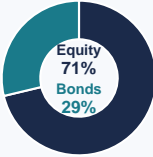



Executive Summary

Below is a high-level overview of your portfolio analysis. Please review the full report for the calculations and methodology behind every number shown here.

<p>PORTFOLIO BALANCE</p> <p>Need Balancing</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Current</p> </div> <div style="text-align: center;">  <p>Target</p> </div> </div> <p>GAP (cash excluded)</p> <table border="1" style="width: 100%;"> <tr> <th>Equity</th> <th>Bonds</th> </tr> <tr> <td>-18.7pp (underweight)</td> <td>+18.7pp (overweight)</td> </tr> </table> <p>INDIVIDUAL ASSET WEIGHTS</p> <table border="1" style="width: 100%;"> <tr><td>AGG</td><td>✓ In Line (-1.7pp)</td></tr> <tr><td>QQQ</td><td>■ Underweight (+47.7pp)</td></tr> <tr><td>SCHR</td><td>■ Overweight (+17.0pp)</td></tr> <tr><td>VEA</td><td>■ Overweight (+13.3pp)</td></tr> <tr><td>VTI</td><td>■ Overweight (+30.2pp)</td></tr> <tr><td>VWO</td><td>■ Underweight (+14.6pp)</td></tr> </table>	Equity	Bonds	-18.7pp (underweight)	+18.7pp (overweight)	AGG	✓ In Line (-1.7pp)	QQQ	■ Underweight (+47.7pp)	SCHR	■ Overweight (+17.0pp)	VEA	■ Overweight (+13.3pp)	VTI	■ Overweight (+30.2pp)	VWO	■ Underweight (+14.6pp)	<p>OPTIMAL TRADES REQUIRED</p> <table border="1" style="width: 100%;"> <tr><td>Total trades</td><td>12</td></tr> <tr><td>Taxable</td><td>6</td></tr> <tr><td>Tax-free</td><td>6</td></tr> </table> <p>CASH RESERVE</p> <p>\$293,825.49</p> <p>CASH TO DEPLOY</p> <p>—</p> <p>INVESTABLE POOL</p> <p>\$1,065,213</p> <p>EXPENSE RATIO</p> <table border="1" style="width: 100%;"> <tr> <th>Current</th> <th>Target</th> </tr> <tr> <td>0.06%</td> <td>0.14%</td> </tr> <tr> <td>Fee drag: \$611/yr</td> <td>Fee drag: \$1,523/yr</td> </tr> </table>	Total trades	12	Taxable	6	Tax-free	6	Current	Target	0.06%	0.14%	Fee drag: \$611/yr	Fee drag: \$1,523/yr	<p>RISK PROFILE</p> <table border="1" style="width: 100%;"> <tr><td>Current</td><td>Growth</td></tr> <tr><td>Target</td><td>Aggressive</td></tr> <tr><td>Your age</td><td>50</td></tr> </table> <p>RISK CAPACITY (heuristic estimate)</p> <p>Medium (6/10)</p>	Current	Growth	Target	Aggressive	Your age	50
Equity	Bonds																																			
-18.7pp (underweight)	+18.7pp (overweight)																																			
AGG	✓ In Line (-1.7pp)																																			
QQQ	■ Underweight (+47.7pp)																																			
SCHR	■ Overweight (+17.0pp)																																			
VEA	■ Overweight (+13.3pp)																																			
VTI	■ Overweight (+30.2pp)																																			
VWO	■ Underweight (+14.6pp)																																			
Total trades	12																																			
Taxable	6																																			
Tax-free	6																																			
Current	Target																																			
0.06%	0.14%																																			
Fee drag: \$611/yr	Fee drag: \$1,523/yr																																			
Current	Growth																																			
Target	Aggressive																																			
Your age	50																																			

<p>CURRENT ASSET LOCATION</p> <ul style="list-style-type: none"> ✓ Preferred \$501,440.16 (65%) ○ Acceptable \$121,022.29 (16%) ! Suboptimal \$55,793.01 (7%) ✗ Misplaced \$93,131.99 (12%) ⚠ Est. Annual Tax Drag \$1,249.81/yr 	<p>HISTORICAL 5-YEAR RETURN</p> <table border="1" style="width: 100%;"> <tr> <th>Current Mix</th> <th>Target Mix</th> </tr> <tr> <td>8.5%</td> <td>12.2%</td> </tr> </table> <p>Weighted by current/target allocation x per-ticker 5Y CAGR. See 5-Year Performance Review for full detail.</p>	Current Mix	Target Mix	8.5%	12.2%
Current Mix	Target Mix				
8.5%	12.2%				

MONTE CARLO SNAPSHOT

\$3.14M

Median projected value at retirement (age 65)

1,000 simulated paths · 15 years to retirement

Educational estimates · not forecasts

PROBABILITY RANGE AT RETIREMENT

10th percentile (bear): \$1.59M

50th percentile (median): \$3.14M

90th percentile (bull): \$6.17M

Based on $\mu=8.5\%/yr$ · $\sigma=13.7\%/yr$. See full chart below.

Recommended Swaps

Recommended trades to bring the portfolio back to target allocation. Review the Tax Notes below before placing any taxable orders, then follow the session sequence in Step by Step Trades.

#	Trade	Amount	Tax	STCG %	LTCG %	Why
Rollover Corp A (Deferred)						
1	VTI → QQQ	\$2,412.49	Tax-Free	—	—	Selling VTI first: it is suboptimal in Deferred (Broad equity in Traditional IRA loses LTCG rates at withdrawal — prefer taxable when rebalancing). Buying underweight QQQ to close allocation gap.
2	VTI → AGG	\$41,666.57	Tax-Free	—	—	Placement swap: VTI is suboptimal in Deferred and relocates to a more suitable account. AGG takes its place and is well suited here: Bond income deferred from taxes in Traditional IRA. Global allocation stays the same.
3	VTI → SCHR	\$9,144.00	Tax-Free	—	—	Placement swap: VTI is suboptimal in Deferred and relocates to a more suitable account. SCHR takes its place and is well suited here: Bond income deferred from taxes in Traditional IRA. Global allocation stays the same.
IRA AII (Deferred)						
4	SCHR → QQQ	\$91,361.43	Tax-Free	—	—	Trimming overweight SCHR in Deferred. Buying underweight QQQ to close allocation gap.
Roth IRA (Roth)						
5	VTI → QQQ	\$28,496.63	Tax-Free	—	—	Trimming overweight VTI in Roth. Buying QQQ: ideal placement here. Growth ETF maximises Roth tax-free compounding.
Individual (Taxable)						

6	SCHR → VWO	\$12,896.05	Taxable	35%	15%	Selling SCHR first: it is misplaced in Taxable (Bond interest taxed annually at ordinary income rates — move to Traditional IRA). Buying VWO: ideal placement here. Tax-efficient broad-market index: ideal in taxable.
7	VTI → VWO	\$99,571.68	Taxable	35%	15%	Trimming overweight VTI in Taxable. Buying VWO: ideal placement here. Tax-efficient broad-market index: ideal in taxable.
8	VTI → QQQ	\$51,649.02	Taxable	35%	15%	Trimming overweight VTI in Taxable. Buying underweight QQQ. Acceptable here.
9	VEA → QQQ	\$102,757.63	Taxable	35%	15%	Trimming overweight VEA in Taxable. Buying underweight QQQ. Acceptable here.
10	SCHR → QQQ	\$38,569.37	Taxable	27%	11%	Placement swap: SCHR is misplaced in Taxable and relocates to a more suitable account. QQQ takes its place and is well suited here: Growth ETF in taxable: only LTCCG on gains; acceptable fallback. Global allocation stays the same.
11	AGG → QQQ	\$41,666.57	Taxable	35%	15%	Placement swap: AGG is misplaced in Taxable and relocates to a more suitable account. QQQ takes its place and is well suited here: Growth ETF in taxable: only LTCCG on gains; acceptable fallback. Global allocation stays the same.
IRA Tech A (Deferred)						
12	QQQ → SCHR	\$2,569.95	Tax-Free	—	—	Placement swap: QQQ is suboptimal in Deferred and relocates to a more suitable account. SCHR takes its place and is well suited here: Bond income deferred from taxes in Traditional IRA. Global allocation stays the same.
TOTAL		\$522,761.39				

Tax Notes

Tax implications of the recommended trades. Review before placing any taxable orders.

Warning: 6 taxable trade(s) carry potential tax costs.

Trade	Sale Amount	STCG Rate	LTCG Rate
SCHR → VWO (Individual)	\$12,896	35%	15%
VTI → VWO (Individual)	\$99,572	35%	15%
VTI → QQQ (Individual)	\$51,649	35%	15%
VEA → QQQ (Individual)	\$102,758	35%	15%
SCHR → QQQ (Individual)	\$38,569	35%	15%
AGG → QQQ (Individual)	\$41,667	35%	15%
Total	\$347,110		



Wash-sale heads-up: SCHR, QQQ, AGG: bought and sold across accounts this session. If you independently sell any of these from a taxable account at a loss, the IRS wash-sale rule will DISALLOW that loss across all accounts you control (including IRAs).



STCG % and LTCG % are rough estimates using the federal bracket for your annual income of \$283,500. Actual tax impact depends on holding period and tax lots selected; the exact amount may be lower if part of the position has a higher cost basis or qualifies for long-term rates.

Step by Step Trades

A step-by-step execution guide split across brokerage settlement windows. Complete Session 1 in full before placing any Session 2 orders.

Usually settles next business day (T+1), even inside a Roth or IRA account. Only pre-settled cash like SPAXX can be deployed right away.

Session 1: Execute First

Deploy settled cash first (if any), then place all sell orders. Wait for every sell to fully settle in your brokerage account before moving to Session 2 (allow 1-2 business days for settlement).

#	What to Do	Amount
Rollover Corp A (Deferred)		
1	SELL VTI \$53,223 (143.85 shares)	\$53,223.06
IRA All (Deferred)		
2	SELL SCHR \$91,361 (3712.37 shares)	\$91,361.43
Roth IRA (Roth)		
3	SELL VTI \$28,497 (77.02 shares)	\$28,496.63
Individual (Taxable)		

4	SELL SCHR \$51,465 (2091.24 shares)	\$51,465.42
5	SELL VTI \$151,221 (408.716 shares)	\$151,220.70
6	SELL VEA \$102,758 (1421.07 shares)	\$102,757.63
8	SELL AGG \$41,667 (421.3 shares)	\$41,666.57
IRA Tech A (Deferred)		
7	SELL QQQ \$2,570 (3.47 shares)	\$2,569.95

Session 2: Execute After Settlement

Confirm all Session 1 sells show as settled in your brokerage, then place these buy orders. Each buy is funded by the corresponding sell proceeds listed above.

#	What to Do	Amount
Rollover Corp A (Deferred)		
1	BUY QQQ \$2,412 (3.25739 shares)	\$2,412.49
7	BUY AGG \$41,667 (421.3 shares)	\$41,666.57
8	BUY SCHR \$9,144 (371.556 shares)	\$9,144.00
IRA All (Deferred)		
2	BUY QQQ \$91,361 (123.358 shares)	\$91,361.43
Roth IRA (Roth)		
3	BUY QQQ \$28,497 (38.4767 shares)	\$28,496.63
Individual (Taxable)		
4	BUY VWO \$112,468 (1850.71 shares)	\$112,467.73
5	BUY QQQ \$234,643 (316.819 shares)	\$234,642.59
IRA Tech A (Deferred)		
6	BUY SCHR \$2,570 (104.427 shares)	\$2,569.95

Asset Location post Rebalancing

Shows how well your assets are placed based on tax-efficiency rules. You can see which tickers are in their optimal account type, which are split across accounts, and which still need to move.

Per-Holding Placement Detail

Ticker	Asset Class	Account(s)	Amount	Placement	Notes
SPAXX	Cash	TXBL \$142,323.00 / DFRD \$107,147.00 / DFRD \$30,898.00 / ROTH \$11,712.00 / DFRD \$1,351.00 / ROTH \$394.49	\$293,825.49	— —	Cash / money market: location neutral
VWO	Equity	Individual (TXBL)	\$154,277.49	✓ Preferred	Tax-efficient broad-market index: ideal in taxable
VTI	Equity	Individual (TXBL)	\$38,569.37	✓ Preferred	Tax-efficient broad-market index: ideal in taxable
VEA	Equity	Individual (TXBL)	\$38,569.37	✓ Preferred	Tax-efficient broad-market index: ideal in taxable
QQQ	Equity	<ul style="list-style-type: none"> ○ Individual(TXBL) \$327,168 ! IRA All(DFRD) \$91,361 ✓ Roth IRA(ROTH) \$28,497 ! Rollover Corp...(DFRD) \$2,412 	\$449,438.80	⚠ Partial	Holdings in this ticker are spread across accounts with different placement ratings. See icons for per-account status.
SCHR	Bond	DFRD \$29,425.37 / DFRD \$9,144.00	\$38,569.37	✓ Preferred	Bond income deferred from taxes in Traditional IRA
AGG	Bond	DFRD \$41,666.57 / DFRD \$10,296.48	\$51,963.05	✓ Preferred	Bond income deferred from taxes in Traditional IRA

Preferred	Acceptable	Suboptimal	Misplaced
\$350,445.28 (45%)	\$327,168.25 (42%)	\$93,773.92 (12%)	\$0.00 (0%)

✓ Preferred Best location	○ Acceptable Fine, no action needed	! Suboptimal Could improve over time
✗ Misplaced Costs money every year	⚠ Partial Ticker split: some ideal, some not	— N/A No tax-location rule for this asset

Placement scores reflect tax-location rules; see *How This Engine Thinks* for the full logic.

Tax Drag Estimate post Rebalancing

Ticker	Account	Value	Yield	Ann. Interest	Rate	Ann. Tax
— No placement issues identified as tax drag post rebalancing						



- **Bonds in taxable:** interest taxed at your ordinary income rate every year — real annual cash cost.
 - **Bonds in Roth:** shelters the interest (no cash tax today), but the same formula shows how much tax-free shelter is being used on low-growth bonds instead of equity compounding.
 - **Equity in Traditional IRA:** no annual cash cost; future gains will be taxed at ordinary income rates on distribution rather than LTCG rates, but the withdrawal tax rate is unknown, so no dollar estimate is shown.
- Yields are approximate; 2025 single-filer federal brackets.*

Gradual Placement Opportunities for later.

These holdings are not in their optimal account type per tax-efficiency rules. No action is needed today. Use this as a guide when deploying new contributions or making free exchanges between tax-advantaged accounts.

Ticker	Asset Class	Current Account	Value	Placement	Move To (Preferred)
QQQ	US Equity	Rollover Corp A (Deferred)	\$2,412.49	Suboptimal	Roth IRA
QQQ	US Equity	IRA All (Deferred)	\$91,361.43	Suboptimal	Roth IRA

Allocation always takes priority over location; see How This Engine Thinks for free-relocation rules and placement priority.

Final Snapshots of accounts and holdings

Final holdings per account if all suggested trades were placed, including any residual cash. Use this to confirm the outcome looks right before placing any orders.

Individual, Fidelity (Taxable)

Ticker	Asset Class	Count	\$
SPAXX	Cash	142,323	\$142,323.00
VWO	International Equity	2,539	\$154,277.49
VTI	US Equity	104,244	\$38,569.37
VEA	International Equity	533,389	\$38,569.37
QQQ	US Equity	441,749	\$327,168.25
TOTAL			\$700,907.48

IRA Tech A, Fidelity (Deferred)

Ticker	Asset Class	Count	\$
SPAXX	Cash	30,898	\$30,898.00
SCHR	Bonds	1,196	\$29,425.37

TOTAL	\$60,323.37
--------------	--------------------

Rollover Corp A, Fidelity (Deferred)

Ticker	Asset Class	Count	\$
SPAXX	Cash	107,147	\$107,147.00
QQQ	US Equity	3.257	\$2,412.49
AGG	Bonds	421.300	\$41,666.57
SCHR	Bonds	371.556	\$9,144.00
TOTAL			\$160,370.06

IRA All, Fidelity (Deferred)

Ticker	Asset Class	Count	\$
SPAXX	Cash	1,351	\$1,351.00
AGG	Bonds	104.110	\$10,296.48
QQQ	US Equity	123.358	\$91,361.43
TOTAL			\$103,008.91

Roth IRA, Fidelity (Roth)

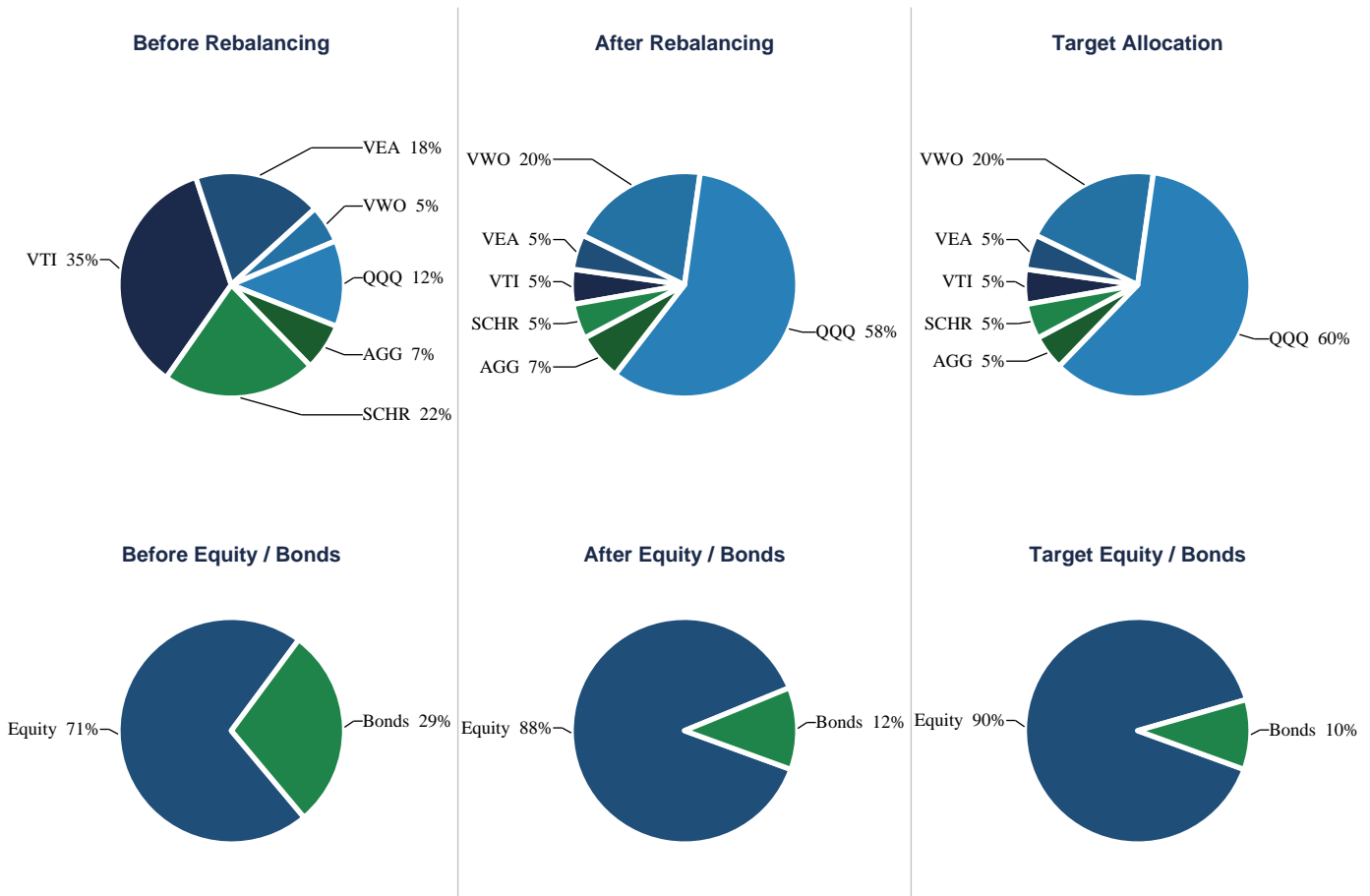
Ticker	Asset Class	Count	\$
SPAXX	Cash	394.490	\$394.49
QQQ	US Equity	38.477	\$28,496.63
TOTAL			\$28,891.12

Roth Corp A, Fidelity (Roth)

Ticker	Asset Class	Count	\$
SPAXX	Cash	11,712	\$11,712.00
TOTAL			\$11,712.00

Before / After / Target — Allocation Comparison

A three-way view: where you started, where you would land if all suggested trades were placed, and where you want to be. Any gap between After and Target means a suggested trade was not included — either because taxable sales are turned off, or there was not enough overweight in tax-advantaged accounts to fund the buy.



After Rebalancing

- ✓ All positions will be within their drift bands (taxable 5%, tax-free 2%).
- ✓ Cash balances in all accounts will remain unchanged.

→ To learn about drift bands and allowing taxable sales, see [User Guide](#).

Additional Analysis

Expense Ratio Analysis

Annual cost drag of each fund, weighted by its share of your portfolio. Every 0.10% saved in fees compounds into meaningfully more wealth over a decade.

Fund	Expense Ratio	Current Weight	Target Weight	Current Weighted Drag	Target Weighted Drag
AGG	0.030%	6.7%	5.0%	0.0020%	0.0015%
QQQ	0.200%	12.3%	60.0%	0.0247%	0.1200%

SCHR	0.050%	22.0%	5.0%	0.0110%	0.0025%
VEA	0.050%	18.3%	5.0%	0.0092%	0.0025%
VTI	0.030%	35.2%	5.0%	0.0106%	0.0015%
VWO	0.080%	5.4%	20.0%	0.0043%	0.0160%

Weighted Portfolio ER

0.062%

0.144%

How calculated: Weighted ER = Σ (fund weight % \div 100 \times fund ER %). Verify any row: multiply its Current Weight by its ER — that equals its Weighted Drag. Current ER uses today's allocations; Target ER uses post-rebalance weights (Target Weight column).

	Current	After Rebalancing
Weighted ER	0.062%	0.144%
Investable Pool	\$1,065,213	\$1,065,213
Est. Annual Fee Drag	\$658/yr	\$1,534/yr



Money-market funds (SPAXX, FDRXX, etc.) carry a small stated ER, but the yield they pay typically offsets it — the net cost is near zero. The fee drag figures above treat their ER at face value; your actual drag is likely a little lower. Verify current fund ERs at your provider's website before acting on these numbers.

Overlap Analysis

Percentage of one fund's holdings (by weight) duplicated in the other. High overlap = paying double fees for the same exposure. Zero overlap = strong geographic or asset-class diversification.

Fund A	Fund B	Overlap	Signal
VTI	QQQ	~80%	High: consider consolidating
AGG	SCHR	~35%	Moderate: some redundancy
VTI	VEA	~0%	None — strong diversification
VTI	VWO	~0%	None — strong diversification
VEA	VWO	~0%	None — strong diversification
VEA	QQQ	~0%	None — strong diversification
VWO	QQQ	~0%	None — strong diversification

Overlap figures are approximate (mid-2025 fund holdings). Verify at [ETF Research Center](#) · [Portfolio Visualizer](#).

Concentration Analysis: Top Company Holdings

Your equity exposure aggregated across all funds, weighted by each fund's share of the portfolio. High concentration in a handful of names amplifies single-stock risk even inside diversified ETFs.

Top 5 companies → 13.0% of total portfolio Top 10 companies → 18.0% of total portfolio

#	Company	Portfolio Weight
1	Apple	████████████████████ 3.50%
2	Microsoft	████████████████████ 3.16%
3	NVIDIA	██████████████████ 2.82%
4	Amazon	██████████████ 1.98%
5	Meta	██████████ 1.53%
6	Alphabet A	██████ 1.30%
7	Alphabet C	██████ 1.15%
8	Broadcom	██████ 1.05%
9	Tesla	██████ 0.96%
10	Berkshire B	███ 0.56%

Holdings are approximate mid-2025 published data. Shaded rows = top 5. Bond and money-market funds excluded. Verify live holdings at [ETF.com](https://www.ETF.com).

Performance

5-Year Performance Review (vs SPY benchmark)

CAGR = compound annual growth rate over the last 5 years, calculated from actual price history fetched from Yahoo Finance. Equity ETFs are compared to SPY (S&P; 500) as the benchmark. Bond ETFs are compared to a 2.5% long-run investment-grade average since SPY is not a relevant bond benchmark. Outperforming = diff > +2.5 pp | In line = diff within ±1.5 pp | Lagging = diff < -1.5 pp.

Ticker	Asset Class	5Y CAGR	Benchmark	vs Bench	Assessment
VTI	US Equity	12.0%	13.0% (SPY)	-1.0pp	In line
VEA	International Equity	10.5%	13.0% (SPY)	-2.5pp	Lagging
VWO	International Equity	6.9%	13.0% (SPY)	-6.1pp	Lagging
QQQ	US Equity	16.2%	13.0% (SPY)	+3.2pp	Outperforming

AGG	Bonds	-0.1%	2.5% (AGG avg)	-2.6pp	Low (expected post-2022)
SCHR	Bonds	-0.1%	2.5% (AGG avg)	-2.6pp	Low (expected post-2022)

What Happens When Markets Drop? Historical Recovery Context by Asset Class

US Equity: If the market drops sharply, how long might you need to wait before recovering your losses? History shows US stocks have fallen as much as 57% (2008 financial crisis), 49% (dot-com crash 2000), and 34% (COVID 2020). Recovery took about 5 years after 2008, 7 years after 2000, and just 5 months after COVID. Staying invested and not selling during the drop is what lets you recover.

International Equity: International stocks tend to fall roughly as much as US stocks during global crises (50–55%), but they often take longer to recover (typically 4 to 8 years) due to currency swings and slower economic cycles in some regions. Holding these adds diversification but requires patience.

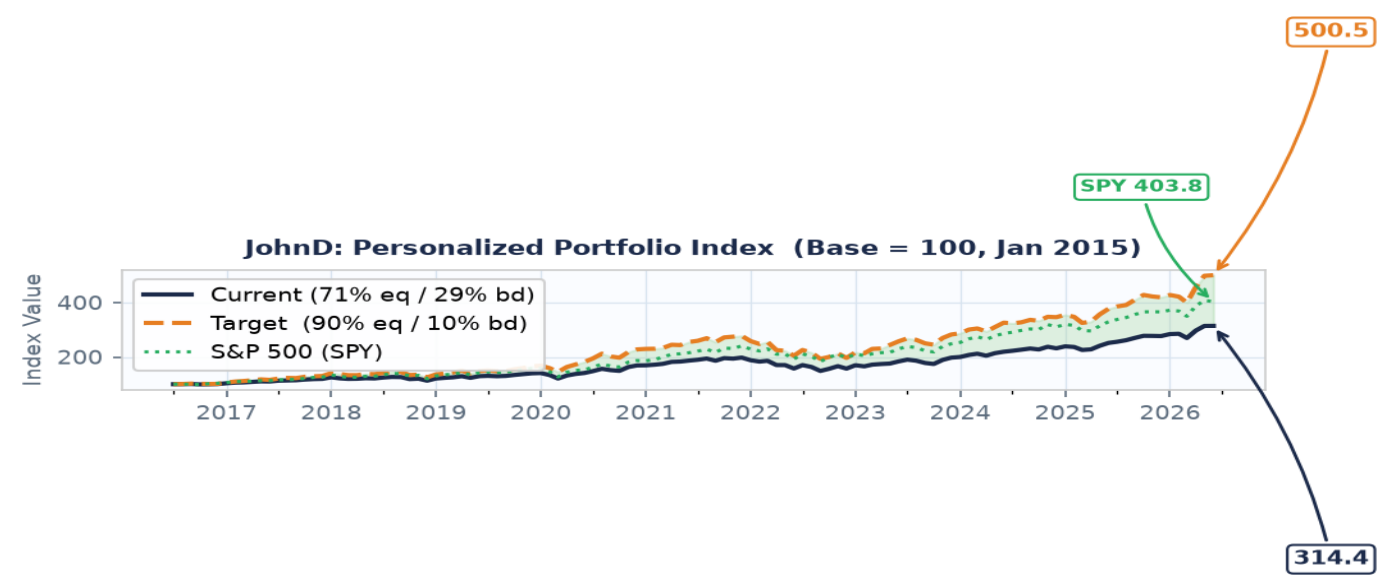
Bonds: Bonds normally act as a cushion, holding value when stocks fall. However, rising interest rates can hurt bonds too. 2022 was the worst year for bonds in 40 years (AGG fell 17%). The good news: bonds tend to recover within 2–4 years as rates stabilise or fall again. Longer-maturity bonds are more sensitive to rate changes than short-term ones.

QQQ: Tech tilt; should outperform broad market
 VEA: Intentional diversifier; lags in US bull markets
 VTI: Should closely track SPY
 VWO: High risk/reward; lags in USD-strong periods
 AGG: Broad bond exposure; expect 2-4% long-run
 SCHR: Capital preservation; crushed in 2022 rate hikes

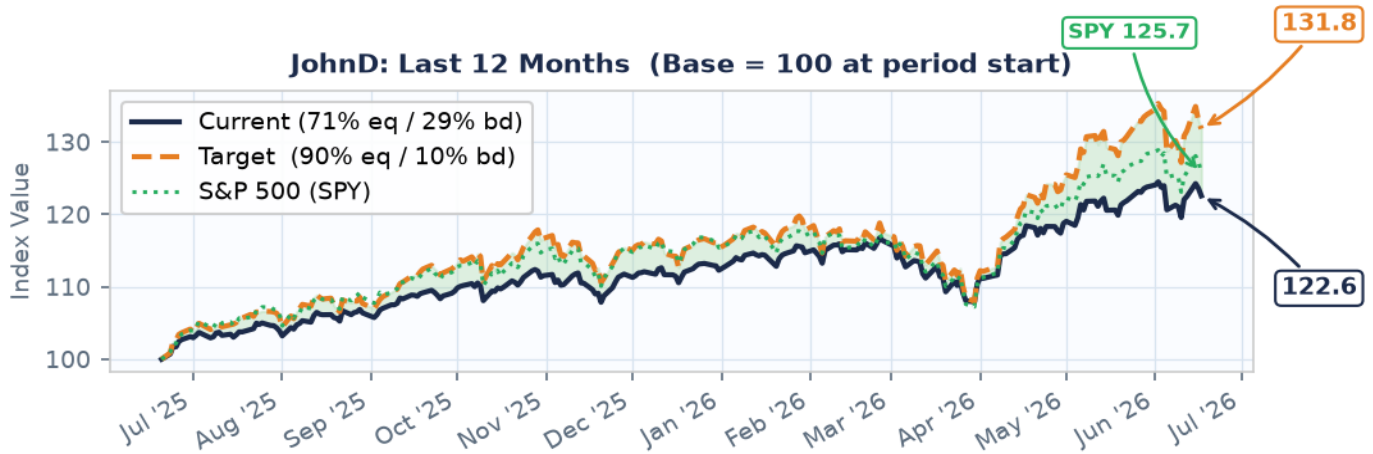
Personalized Portfolio Index: Current vs Target Allocation

Blue solid = current holdings weights. Orange dashed = target allocation weights. Both indexed to 100 at first available date.

Historical Chart (Since Jan 2015)



Last 12 Months (daily, base = 100 at period start)



How these indices are calculated:

- Both lines start at 100 on the first day of each chart's period. A value of 115 means the portfolio gained 15% since that starting point.
- Long-term chart base: first trading day of January 2015. Short-term chart base: approximately one year ago.
- Target line weights: VTI x 5% + VEA x 5% + VWO x 20% + QQQ x 60% + AGG x 5% + SCHR x 5%
- Current line weights: VTI x 35% + VEA x 18% + VWO x 5% + QQQ x 12% + AGG x 7% + SCHR x 22%
- Prices sourced from Yahoo Finance (adjusted closing prices, auto-corrected for splits and dividends).

How Your Allocation Performed vs Your Target

Compares the return your current holdings actually delivered against what a perfectly rebalanced portfolio held at your target weights would have returned over the same period. A negative gap means your actual mix returned less than the target allocation would have.

Period	Current Portfolio	Target Portfolio	Current vs Target
Last 1 Year	+24.9%	+32.6%	-7.7pp
Last 5 Years	+68.3% (CAGR +11.0%)	+96.2% (CAGR +14.4%)	-27.8pp
Last 10 Years	+214.4% (CAGR +12.2%)	+400.5% (CAGR +17.6%)	-186.2pp

Total Return = price change over the full period. CAGR = annualised compound growth rate. Current vs Target gap in percentage points (pp).

Monte Carlo Simulation

MONTE CARLO SIMULATION · Starting value \$1,065,213 · $\mu=8.5\%/yr$ · $\sigma\approx 13.7\%/yr$ · 1,000 simulated paths

Horizon	10th %ile (Bear)	25th %ile	50th %ile (Median)	75th %ile	90th %ile (Bull)
5Y	\$1.03M	\$1.23M	\$1.53M	\$1.83M	\$2.24M
	-3%	+16%	+44%	+72%	+110%
10Y	\$1.20M	\$1.60M	\$2.15M	\$2.84M	\$3.67M
	+12%	+50%	+102%	+167%	+245%

15Y (Retire)	\$1.61M +51%	\$2.21M +108%	\$3.20M +200%	\$4.60M +332%	\$6.31M +493%
---------------------	-------------------------------	--------------------------------	--------------------------------	--------------------------------	--------------------------------

Log-normal GBM · 1,000 simulated paths · μ (**mu**) = 8.5%/yr: weighted average annual return; each holding's live CAGR is used when available; otherwise a long-run asset-class estimate is substituted (US Equity 10%, Intl 8%, EM 9%, Bonds 4%, Cash 4.5%). σ (**sigma**) = 13.7%/yr: weighted average annual volatility (standard deviation of returns) using long-run historical norms by asset class (US Equity 16%, Intl 17%, EM 19%, Bonds 7%, Cash -0.5%); assumes zero correlation between asset classes, which slightly overstates true portfolio volatility. Past performance is not a guarantee of future results.

At 50, you have **15 years** of runway — the median path projects **\$3.20M** by retirement. Bear-market drawdowns are temporary; compounding is permanent. Read more: [Investopedia — Monte Carlo simulation explained](#)

i

Educational estimates, not forecasts.

These projections are based on historical return assumptions and simplified log-normal simulations. They do not account for future taxes, fees, contribution changes, or sequence-of-returns risk. Use as a planning range only; always consult a qualified financial advisor before making investment decisions.

Compound Growth Projections

COMPOUND GROWTH PROJECTIONS · Starting value \$1,065,213 · No inflation adjustment

Annual Return	5-Year Value / Gain	10-Year Value / Gain	15-Year Value / Gain
4% / yr	\$1.30M +\$231K	\$1.58M +\$512K	\$1.92M +\$853K
5% / yr	\$1.36M +\$294K	\$1.74M +\$670K	\$2.21M +\$1.15M
6% / yr	\$1.43M +\$360K	\$1.91M +\$842K	\$2.55M +\$1.49M
7% / yr	\$1.49M +\$429K	\$2.10M +\$1.03M	\$2.94M +\$1.87M
8% / yr	\$1.57M +\$500K	\$2.30M +\$1.23M	\$3.38M +\$2.31M
★ 8.5% / yr	\$1.60M +\$537K	\$2.41M +\$1.34M	\$3.62M +\$2.56M
9% / yr	\$1.64M +\$574K	\$2.52M +\$1.46M	\$3.88M +\$2.81M
10% / yr	\$1.72M +\$650K	\$2.76M +\$1.70M	\$4.45M +\$3.38M

12% / yr

\$1.88M
+\$812K\$3.31M
+\$2.24M\$5.83M
+\$4.77M

Simple compound growth (no inflation adjustment, fees, or volatility). ★ row = current portfolio CAGR (8.5%). See Monte Carlo above for probability-weighted projections.

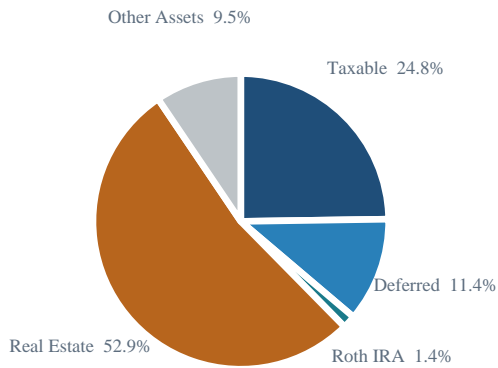


At 50, a **2% difference in annual return** compounds to roughly **\$941K** extra over 15 years on your current balance, before fees or taxes. Keeping costs low is the most reliable lever you control. Read more: [Investopedia — Compound Interest](#) · [SEC Investor.gov — Compounding calculator](#)

Net Worth

Includes all accounts and real estate equity (including assets not actively considered for rebalancing).

Account / Asset	Type	Description	Value
Individual	Taxable	Fidelity	\$700,907.48
Roth IRA	Roth IRA	Fidelity	\$28,891.12
IRA Tech A	Deferred	Fidelity	\$60,323.37
Rollover Corp A	Deferred	Fidelity	\$160,370.06
Roth Corp A	Roth IRA	Fidelity	\$11,712.00
IRA All	Deferred	Fidelity	\$103,008.91
Education Fund	Other	529 college savings plan (Fidelity)	\$241,375.00
CD	Other	Certificate of Deposit (Fidelity)	\$26,250.00
Real Estate (equity)	—	All properties combined	\$1,497,900.00
Estimated Net Worth			\$2,830,737.94



Category	Value	Share
Taxable / Brokerage	\$700,907	24.8%
Deferred (IRA / Other)	\$323,702	11.4%
Roth IRA	\$40,603	1.4%
Real Estate (Equity)	\$1,497,900	52.9%
Other Assets	\$267,625	9.5%
Estimated Net Worth	\$2,830,738	100%

Risk Deep Dive

Risk Capacity: Financial Picture & Portfolio Buffer

Category	Value
ETF/fund holdings (non-cash total)	\$771,387
Cash / MM Fund	\$293,825
Education Fund — 529 college savings plan (Fidelity)	\$241,375
CD — Certificate of Deposit (Fidelity)	\$26,250
Financial portfolio total	\$1,332,838
Real estate equity (all properties)	\$1,497,900
Total estimated net worth	\$2,830,738
Rental net cash flow (monthly)	\$1,987 / mo (net gain)

Real Estate Properties

Property	Type	Value	Equity	Loan	APR	Rent	Expenses
North Home	Primary	\$506,000	\$242,700	\$263,300	2.9%	—	—

South Home	Rental	\$1,183,000	\$818,000	\$365,000	3.5%	\$4,296/mo	\$420/mo
East Home	Rental	\$718,000	\$437,200	\$280,800	3.5%	\$3,654/mo	\$420/mo

Risk Capacity (heuristic estimate): MEDIUM (6/10)

- **Real Estate Equity Buffer** [+1 of 1 pt]: Real estate equity is 112% of the financial portfolio ($\geq 5\%$ threshold). Equity outside liquid markets provides a volatility buffer.
- **Rental Net Cash Flow** [+1 of 1 pt]: Positive rental net cash flow (\$1,987/mo) acts as a bond-like income stream, reducing dependence on portfolio withdrawals.
- **Time Horizon to Retirement** [+1 of 2 pts]: 15 years to retirement (10-19 yrs). Moderate recovery window. Fidelity defaults to Aggressive Growth for 13+ year horizons; partial capacity awarded.
- **Financial Portfolio Size** [+3 of 3 pts]: Financial portfolio \$1,332,838 ($\geq \$1M$). A \$1M+ portfolio can absorb volatility without behavioural change and sustain a higher equity allocation. (Vanguard Advisor's Alpha, 2022)

How the Risk Capacity Score Is Calculated

The score is a composite of four objective factors (max 7 pts, capped at 10) drawn from Vanguard, Fidelity, T. Rowe Price, and CFA Institute frameworks. 0–3 = LOW; 4–6 = MEDIUM; 7–10 = HIGH.

Factor 1: Real Estate Equity Buffer (0–1 pt) If real estate equity $\geq 5\%$ of the financial portfolio, +1 is awarded. Real estate equity outside liquid markets provides a volatility buffer.

Factor 2: Rental Net Cash Flow (0–1 pt) If net monthly rental cash flow > 0 , +1 is awarded. Positive rental income acts as a bond-like stream reducing portfolio dependency.

Factor 3: Time Horizon to Retirement (0–2 pts) ≥ 20 years \rightarrow +2 pts (Vanguard/T. Rowe maintain $\geq 85\%$ equity at this horizon); 10–19 years \rightarrow +1 pt (Fidelity defaults to Aggressive Growth at 13+ years); < 10 years \rightarrow +0 pts. Defaults to age 67 when `retirement_age` is not set. Add `retirement_age: NN` to your portfolio file to use your actual planned age.

Factor 4: Financial Portfolio Size (0–3 pts) $\geq \$1M \rightarrow$ +3 pts; $\geq \$500k \rightarrow$ +2 pts; $< \$500k \rightarrow$ 0 pts. Larger portfolios absorb volatility without behavioural change.

[1] [Vanguard Target-Date Fund Glide Path](#) — $\geq 85\%$ equity at 20+ years; confirms 20-yr horizon as full-capacity boundary.

[2] [Fidelity Portfolio Review Methodology](#) — Defaults to Aggressive Growth for investors 13+ years from retirement.

[3] [T. Rowe Price Target Date Glide Path Research](#) — 98% equity at 30+ yrs; meaningful de-risk begins around 20 years.

[4] [CFA Institute — Investment Risk Profiling Guide](#) — Risk capacity defined as objective/financial; ≤ 5 yrs = low-capacity zone.

[5] [Fidelity — Risk Tolerance and Time Horizon](#) — 20-year worst-case for aggressive \approx conservative; empirical recovery threshold.

[6] [Vanguard — Advisor's Alpha \(2022\)](#) — Larger portfolios absorb volatility without behavioural change.

[7] [Ibbotson & Siegel \(2011\) — Real Estate Returns](#), [CFA Institute](#) — RE equity $\geq 5\%$ of liquid assets provides a measurable volatility buffer.

Equity % Benchmarks vs Your Current (Age 50)

Profile	Equity % Range	Est. Max Drawdown	Context
Conservative	< 50%	--27%	< 5 years to retirement or very low risk capacity
Moderate	50–70%	--41%	Balanced investor, 5–15 yr horizon
Growth	70–85%	--48%	Growth focus, 15+ yr horizon or real estate buffer
★ Aggressive	85–95%	--53%	Long runway, strong income, or exceptional financial buffer
Very Aggressive	> 95%	--56%	20+ yr horizon; treats short-term drops as noise
Your current	90%	--53%	Your stated target equity/debt ratio

Est. Max Drawdown = worst-case blend of 2008–09 equity crash (–57% SPY) and 2022 bond rout (–17% AGG). These two events occurred in different cycles; actual drawdown in any single event would typically be less severe. ★ = your current profile.

Risk / Return Profile: Current vs Target (5 / 10 / 15-Year)

These numbers are calculated from the actual price history of YOUR specific ETFs (e.g. VTI, VEA, AGG), weighted at your current and target allocations. Monthly adjusted closing prices are pulled from Yahoo Finance (since Jan 2015). Because this uses your exact mix, the results are specific to your portfolio and are not a generic lookup from the internet.

Risk-free rate uses period-average historical NIRX (13-week T-bill) for each window. Compare the 5Y, 10Y, and 15Y columns to see whether recent returns are driven by a specific market regime.

Metric	Curr 5Y	Curr 10Y	Curr 15Y	Tgt 5Y	Tgt 10Y	Tgt 15Y
	Current (52% eq / 21% bd)			Target (90% eq / 10% bd)		
CAGR	8.9%	12.1%	11.8%	12.5%	17.5%	16.4%
Volatility (Ann.)	12.6%	11.6%	11.0%	16.5%	15.2%	14.6%
Sharpe Ratio	0.47	0.89	0.94	0.57	1.02	1.01
Beta vs SPY	0.75	0.71	0.72	0.96	0.91	0.94
Max Drawdown	-22.5%	-22.5%	-22.5%	-28.2%	-28.2%	-28.2%
Risk-Free Rate	3.0%	1.8%	1.6%	3.0%	1.8%	1.6%

How to read these numbers:

- **CAGR**: annualised compound return; higher is better.
- **Volatility**: annualised standard deviation of monthly returns; lower = smoother ride.
- **Sharpe**: (CAGR minus risk-free rate) / volatility. A Sharpe below 1.0 does not mean your allocation is wrong. For a diversified portfolio (stocks + bonds), 0.5–0.8 is realistic over most periods. The 5Y window includes 2022, the worst year for both stocks and bonds simultaneously in 40 years, which depresses Sharpe for nearly every balanced portfolio. A low Sharpe often means the period was rough for markets, not that you picked the wrong assets.
- **Beta**: sensitivity to SPY moves; 1.0 = moves with the market; < 1 = more defensive.
- **Max Drawdown**: worst peak-to-trough drop over the window; smaller magnitude is better.

Risk Contribution by Ticker: Who Is Driving Your Volatility?



- Think of your portfolio like a team. Each fund has a **weight** (how much money it holds) and a **risk contribution** (how much of the portfolio's total swings it is responsible for). A fund punching above its weight — say it holds 10% of your money but drives 18% of the volatility — is a **risk amplifier** (Risk/Weight ratio > 1.0). That is not necessarily bad: growth funds like QQQ are expected to carry more risk per dollar. But if a fund you thought was defensive is amplifying risk, that is worth knowing.
- The **Risk/Weight ratio** is the quick signal: 1.0 = pulling its exact weight; > 1.0 = outsized volatility contributor; < 1.0 = a dampener (bonds and diversified funds usually fall here). Use this table to spot which holdings to watch if you want a smoother ride.

Risk/Weight ratio > 1.0x = risk amplifier (contributes more volatility than its portfolio weight).

Current Allocation				Target Allocation			
Ticker	Weight	Risk %	Ratio	Ticker	Weight	Risk %	Ratio
VTI	35.2%	44.6%	1.27x (!)	VTI	5.0%	4.7%	0.94x
VEA	18.3%	22.4%	1.22x (!)	VEA	5.0%	4.1%	0.82x
VWO	5.4%	5.2%	0.96x	VWO	20.0%	14.0%	0.70x
QQQ	12.3%	18.7%	1.52x (!)	QQQ	60.0%	74.9%	1.25x (!)
AGG	6.7%	2.7%	0.40x	AGG	5.0%	1.3%	0.27x
SCHR	22.0%	6.4%	0.29x	SCHR	5.0%	0.9%	0.19x

Risk contribution = $w_i \times (\text{Cov} \times w_i) / \text{portfolio_vol}$. Tickers marked (!) contribute > 1.2x their weight in volatility.

How This Engine Thinks

Every recommendation in this report follows the same seven-step priority order. Understanding this hierarchy explains why the engine suggests a particular trade and whether an edge case warrants overriding it.

1

Maintain target allocation

The target ratio you set (e.g. 70% equity / 30% bonds) is the engine's primary objective. Every trade serves this goal first.

2

Use available cash before selling

New cash is deployed to underweight positions before the engine considers selling any existing holdings. Selling triggers taxes; deploying cash does not.

3

Minimize taxes; improve location only on free moves

When a sale is unavoidable, tax-advantaged accounts (Roth, Traditional IRA) are sold first. Taxable sales are only proposed when you explicitly allow them (`taxable_sales_allowed: true`). Asset location improves the same way: the engine routes cash to better-fit accounts and makes tax-free exchanges inside an IRA whenever possible, but allocation targets are never compromised for placement gains.

4

Improve asset location when possible

After allocation is corrected, the engine looks for placement-neutral swaps: moving bonds from a Roth to a Traditional IRA while moving equities the other direction. Better tax efficiency, zero change to overall allocation.

5

Minimize number of trades

Recommendations are consolidated wherever possible. Fewer trades means fewer settlement delays, fewer errors, and lower costs if your broker charges commissions.

6

Avoid unnecessary taxable gains

When two trade paths are otherwise equal, the engine prefers the one with the smaller short-term capital-gains exposure in your taxable account.

Asset Location Guidelines

Asset location assigns each fund to the account type where it is taxed most favourably. The engine uses these hard-coded rules; no per-ticker configuration is needed.

When new cash is deployed, the engine picks the most underweight ticker first, then routes the purchase to the account type in this priority order:

Asset Group	1st Choice	2nd Choice	3rd Choice	Reason	IRS Basis
Growth ETFs (QQQ, VGT...)	Roth IRA	Taxable	Traditional	Gains grow tax-free forever in Roth. Taxable is acceptable (LTCG rates). Traditional is worst: all withdrawals taxed as ordinary income.	IRC §408A — Roth distributions tax-free after age 59½. IRC §72(t) — no early-withdrawal penalty on conversions after 5 yrs.
Bonds (AGG, SCHR...)	Traditiona l	Taxable	Roth IRA	Bond interest deferred inside Traditional IRA avoids annual ordinary-income tax. Roth is last; it wastes tax-free space on low-growth assets.	IRC §61 — interest is ordinary income. IRC §219 — IRA contributions deductible; distributions taxed on withdrawal.
Broad Equity (VTI, VEA, VWO...)	Taxable	Roth IRA	Traditional	Low turnover and qualified dividends make broad index funds tax-efficient in taxable. Step-up in basis at death eliminates embedded gains for heirs.	IRS Pub. 550 — Investment Income & Expenses. IRC §1014 — Step-up in basis at death. IRC §1(h) — 0/15/20% LTCG rates. Form 1116 — Foreign Tax Credit (VEA/VWO).

Disclaimer



Rebalanclly is not a registered investment advisor (RIA) and does not act as a fiduciary. This report is generated mechanically from the data you provide. It does not account for your complete financial picture, tax situation, estate planning needs, or behavioral risk tolerance, and does not constitute a recommendation to buy, sell, or hold any security. Tax estimates use federal brackets only; always verify cost basis with your brokerage before trading. Consult a qualified financial advisor, CPA, or attorney before making any investment decision.

Generated by Rebalanclly Engine v1.0.0 | <https://z2a.info/pb/>