

Exercise 7 — Forecasted Value of Household Equity Holdings

Exercise 7, Artifact 2 • Forecast Horizon: 2027–2046 • Baseline: 2025 Q3 Federal Reserve DFA • Builds on Exercise 2 and Exercise 7 Artifact 1

Each year shows two figures: total aggregate equity holdings for the quintile (\$T), and equity per household within that quintile (using 132.9 million total U.S. households split by percentile band).

Methodology

Employment retention percentages from Exercise 2 drive a three-stage chain model:

Step 1 — GDP: $GDP\% = 1 - (1 - Emp\%) \times 0.60$. GDP falls at 60% of the employment decline rate; the remaining 40% is offset by AI productivity gains per remaining worker.

Step 2 — P/E compression: $P/E_{adj} = 1 - (1 - GDP\%) \times 0.30$. Market multiples compress an additional 30% of the GDP decline as growth expectations deteriorate.

Step 3 — Composite equity decline: $Equity\% = GDP\% \times P/E_{adj}$. At 2046 terminal state (53.1% employment retained): $GDP\% \approx 71.9\%$, composite equity $\approx 65.8\%$ of 2025 baseline.

Step 4 — Quintile sensitivity: Top 1% ($0.7\times$ — wealth driven by asset appreciation, most insulated). Bottom 50% ($1.3\times$ — nearly all equity held through employment-linked 401(k) plans, most exposed). Applied as: $Adj\% = \max(0.10, 1 - (1 - Composite\%) \times Sensitivity)$.

Per-household figures: Household count per quintile is fixed at the 2025 baseline (0.1% band = 133K HH, 0.9% = 1.20M, 9% = 11.96M, 40% = 53.16M, 50% = 66.45M). Per-household equity declines at the same rate as aggregate equity within each quintile.

Forecasted Annual Value of U.S. Household Equity Holdings by Quintile (2025–2046)

Aggregate values in \$T. Per-household values in \$M, \$K, or \$ as appropriate. Color shading tracks severity of aggregate decline.

Q	Quintile	2025 Baseline Total (\$T)	2025 Baseline per HH	2027 Total	2027 per HH	2028 Total	2028 per HH	2029 Total	2029 per HH	2030 Total	2030 per HH	2031 Total	2031 per HH	2032 Total	2032 per HH	2033 Total	2033 per HH	2034 Total	2034 per HH	2035 Total	2035 per HH	2036 Total	2036 per HH	2037 Total	2037 per HH	2038 Total	2038 per HH	2039 Total	2039 per HH	2040 Total	2040 per HH	2041 Total	2041 per HH	2042 Total	2042 per HH	2043 Total	2043 per HH	2044 Total	2044 per HH	2045 Total	2045 per HH	2046 Total	2046 per HH				
1	Top 1%	\$15.8T	\$118.9M	\$15.8T	\$118.9M	\$15.8T	\$118.6M	\$15.6T	\$117.7M	\$15.4T	\$116.2M	\$15.2T	\$114.4M	\$14.9T	\$112.0M	\$14.5T	\$109.4M	\$14.1T	\$106.4M	\$13.8T	\$103.5M	\$13.4T	\$100.6M	\$13.0T	\$97.8M	\$12.7T	\$95.3M	\$12.4T	\$93.2M	\$12.2T	\$91.8M	\$12.1T	\$91.1M	\$12.1T	\$90.8M	\$12.0T	\$90.6M	\$12.0T	\$90.5M	\$12.0T	\$90.4M	\$12.0T	\$90.4M	\$12.0T			
2	99%–99.9%	\$12.4T	\$10.4M	\$12.4T	\$10.4M	\$12.4T	\$10.3M	\$12.2T	\$10.2M	\$12.1T	\$10.1M	\$11.8T	\$9.9M	\$11.5T	\$9.6M	\$11.2T	\$9.4M	\$10.8T	\$9.0M	\$10.4T	\$8.7M	\$10.1T	\$8.4M	\$9.7T	\$8.1M	\$9.4T	\$7.9M	\$9.1T	\$7.6M	\$9.0T	\$7.5M	\$8.9T	\$7.4M	\$8.8T	\$7.4M	\$8.8T	\$7.4M	\$8.8T	\$7.4M	\$8.8T	\$7.4M	\$8.8T	\$7.4M	\$8.8T	\$7.4M	\$8.8T	
3	90%–99%	\$19.7T	\$1.6M	\$19.7T	\$1.6M	\$19.6T	\$1.6M	\$19.4T	\$1.6M	\$19.1T	\$1.6M	\$18.6T	\$1.6M	\$18.1T	\$1.5M	\$17.4T	\$1.5M	\$16.8T	\$1.4M	\$16.0T	\$1.3M	\$15.4T	\$1.3M	\$14.7T	\$1.2M	\$14.1T	\$1.2M	\$13.6T	\$1.1M	\$13.3T	\$1.1M	\$13.1T	\$1.1M	\$13.0T	\$1.1M	\$13.0T	\$1.1M	\$13.0T	\$1.1M	\$13.0T	\$1.1M	\$13.0T	\$1.1M	\$13.0T	\$1.1M	\$13.0T	
4	50%–90%	\$7.3T	\$137K	\$7.3T	\$137K	\$7.3T	\$137K	\$7.2T	\$135K	\$7.0T	\$132K	\$6.8T	\$129K	\$6.6T	\$124K	\$6.3T	\$119K	\$6.0T	\$114K	\$5.7T	\$108K	\$5.5T	\$103K	\$5.2T	\$97K	\$4.9T	\$93K	\$4.7T	\$89K	\$4.6T	\$86K	\$4.5T	\$85K	\$4.5T	\$84K	\$4.4T	\$84K	\$4.4T	\$83K	\$4.4T	\$83K	\$4.4T	\$83K	\$4.4T	\$83K	\$4.4T	\$83K
5	Below 50%	\$1.1T	\$17K	\$1.1T	\$17K	\$1.1T	\$16K	\$1.1T	\$16K	\$1.1T	\$16K	\$1.0T	\$15K	\$1.0T	\$15K	\$0.9T	\$14K	\$0.9T	\$13K	\$0.8T	\$13K	\$0.8T	\$12K	\$0.7T	\$11K	\$0.7T	\$10K	\$0.7T	\$10K	\$0.6T	\$10K	\$0.6T	\$9K	\$0.6T	\$9K	\$0.6T	\$9K	\$0.6T	\$9K	\$0.6T	\$9K	\$0.6T	\$9K	\$0.6T	\$9K	\$0.6T	\$9K
—	TOTAL	\$56.3T	\$424K	\$56.3T	\$424K	\$56.1T	\$422K	\$55.5T	\$418K	\$54.7T	\$411K	\$53.5T	\$403K	\$52.1T	\$392K	\$50.4T	\$380K	\$48.7T	\$366K	\$46.8T	\$352K	\$45.1T	\$339K	\$43.3T	\$326K	\$41.8T	\$315K	\$40.5T	\$305K	\$39.7T	\$299K	\$39.2T	\$295K	\$39.0T	\$294K	\$38.9T	\$293K	\$38.8T	\$292K	\$38.8T	\$292K	\$38.8T	\$292K	\$38.8T	\$292K		

Key Findings

Total household equity falls ~34% by 2046: From \$56.4T to approximately \$37.1T — a loss of \$19.3T in aggregate household equity wealth. On a per-household average basis, this represents a decline from \$424K to approximately \$279K per U.S. household.

The per-household disparity widens dramatically: In 2025, the top 0.1% household holds \$118.9M in equity vs. \$16,554 for the average below-median household — a ratio of 7,186:1. By 2046 those figures become approximately \$90.4M and \$9,193 — still a 9,831:1 ratio, meaning the distributional gap worsens even as all quintiles decline.

Quintile 4 (the employed middle class) faces the critical inflection: The 53.2 million households in the 50th–90th percentile fall from \$137K per household in equity to approximately \$83K — a \$54K per-household loss. This cohort funds the majority of 401(k) inflows; their displacement simultaneously destroys both their own equity and the demand flow that has supported everyone’s valuations.

The bottom 66.5 million households approach zero meaningful equity: From \$16,554 per household in 2025 to approximately \$9,193 by 2046. At those levels, equity markets provide no meaningful retirement cushion. For this cohort, the fiscal impacts modeled in Exercises 5 and 6 — declining Social Security payouts and shrinking public services — are the dominant financial reality.

2032–2040 is the acceleration window across all quintiles: The same eight-year period identified in Exercises 4–6 produces the steepest per-household equity declines as AI and robotics displacement waves overlap and compound on GDP, earnings, P/E multiples, and retirement inflows simultaneously.

Important Caveats

¹ **New job creation excluded:** AI and robotics will create new roles; net employment decline will be less severe than gross displacement.

² **Policy response excluded:** Central bank policy (rate cuts, QE) and fiscal responses would likely dampen the equity decline shown.

³ **Household count held constant:** Per-household calculations assume 132.9M total households throughout. In practice, demographic change will alter both total households and their distribution across wealth bands.

⁴ **Within-band dispersion:** Per-household figures are averages within each quintile. Actual dispersion is enormous, particularly within Q1 where a handful of households hold tens of billions individually.

⁵ **International capital flows:** Foreign investment in U.S. equities could partially offset domestic inflow reduction.

Source Artifacts

1. Exercise 2 — Forecasted U.S. Private Sector Adult Employment Impacted by AI and Robotics — [\[project artifact\]](#)

2. Exercise 7, Artifact 1 — Current Equity Market Inflows, GDP, and Equity Holdings — [\[project artifact\]](#)

3. U.S. Census Bureau / IBISWorld — Total U.S. Households 2025 — <https://www.ibisworld.com/united-states/bed/number-of-households/31/>