Adams Institute

Operation Abigail
A Median-Indexed Feedback Model

1. Agent Objective

$$\max_{a_{i,t}} W_{i,t}$$

Agents choose strategies $a_{i,t}$to maximize attainable household wealth $W_{i,t}$, subject to the constraint and system dynamics below. The constraint defines the feasible set.

2. Core Constraint

$$W_{i,t} \leq k \cdot W_{\text{median},t}$$

- $W_{i,t}$: household net worth at time *t*
- $W_{\text{median},t}$: national median household net worth
- k: proportional scaling parameter

3. Enforcement: Recapture Function

$$T_{i,t} = \max\left(0,\, W_{i,t} - \max\left(kW_{\text{median},t}, G_i\right)\right)$$

- $T_{i,t}$: excess accumulation above the boundary
- G_i: conditionally protected nominal, non-increasing baseline for legacy accumulation

Enforces the constraint at terminal wealth; not flow-based or revenue-maximizing. Applied at the household level independent of asset composition.

4. Aggregate Recapture and Allocation

$$R_t = \sum_i T_{i,t}\ (1/3)R_t \rightarrow \text{sovereign wealth fund},\ (2/3)R_t \rightarrow \text{states}$$

5. Sovereign Wealth Fund Dynamics

$$F_T = \sum_{t=1}^{T} R_{swf,t}\,(1+r)^{T-t}$$

$$V_t = \frac{\omega F_t}{N_{\text{adult},t}}$$

- F_T: fund value
- r: real rate of return
- V_t: per-capita distribution (ω: yield; $N_{\text{adult},t}$: population)

6. Median as Endogenous State Variable

$$\widetilde{W}_{\text{median},t+1} = g(a_{1,t}, \ldots, a_{N,t}, X_t)$$

$$W_{\text{median},t+1} = \widetilde{W}_{\text{median},t+1} + V_t$$

- $\widetilde{W}_{\text{median},t+1}$: median from market outcomes
- X_t: exogenous macroeconomic conditions

7. Temporal Smoothing

$$W_{\text{median},t} = \frac{1}{5} \sum_{s=t-4}^{t} W^{\text{obs}}_{\text{median},s}$$

8. Parameter Constraints

- $k \in [1{,}000,\ 10{,}000]$
- Downward adjustment $\leq 20\%$ in the first 20 years after implementation

9. Jurisdictional Constraint

For households satisfying:

$$W_{i,t} \geq 0.8 \cdot k \cdot W_{\text{median},t}$$

- Foreign-held assets $\leq 20\%$ of total net worth in the boundary zone

10. Notes

- Sector-invariant, household-level mechanism operating on terminal balance sheets; no activity classification or sectoral measurement required.
- No estimation of counterfactual income, productivity, or returns required.
- Alters the feasible set without imposing behavioral mandates.
- Dual equilibrium internalization pathways: Cooperative – agents raise $g(a)$ to expand the boundary; Mechanical – excess accumulation triggers $T_{i,t}$, funding V_t.
- In-kind settlement preserves market neutrality, avoids forced liquidation, and utilizes existing custody structures (e.g., state endowments).
- 5-year smoothing mitigates short-term volatility.
- If $g(a) \to 0$, V_t provides a positive contribution to the median, maintaining a well-defined non-zero state variable; the boundary constraint alters incentives in such states.
- Initially, binding incidence is limited to $\leq 10^3$ apex households; all households below the boundary – including all centimillionaires – are exempt from federal wealth taxation.
- Implementation requires definitions for aggregation, valuation, audit, and settlement.
- Dormancy condition: $S_t \in \{0,1\}$, with $T_{i,t} = S_t \cdot (\cdot)$, and $S_t = 0$ when middle three quintiles ≥50% of wealth, while fund distributions continue.
- Ratification feasibility: $\sum_{s=1}^{50} V_s \geq 38$, leveraging concentrated geographic incidence (e.g., ≈60% of billionaire households in four states) against broadly distributed fiscal benefits.
- Forward-looking constraint on expansion, not retrospective adjustment; grandfathering conditioned on repatriation, reporting, and compliance.