Impacts of COVID-19 on retirement security:
- Millions of unemployed workers have lost access to employment-based retirement plans
- A third of U.S. population have used money from a savings/retirement account to pay bills (Aug survey by Pew)

State-level policy responses before COVID-19:
- Seven states are launching/have launched state-sponsored retirement plans for private sector workers (OR, CA, IL, MD, CT, NJ, CO)

OregonSaves (2017):
- First state-sponsored auto-enrollment plan in U.S.
- Employers must provide an employer-sponsored plan or access to OregonSaves
- Employees can opt out of the default/program
  - 5% default savings rate; 1% auto-escalation/year to 10%

Research Question:
- What is the optimal default savings rate in auto-enrollment plan?

Model for Optimal Default Savings Rate

Step 1: Individuals decide between default savings rate $r$ and preferred rate $s$.

Group P: passively stay at both defaults;
Group L: passive savers at $r$ but opt out of $r'$ because $r'$ deviates from their preferred rate between $s_L$ and $s_L'$;
Group H: opt out of $r$ but passive savers at $r'$ because $r'$ is close to their preferred rate between $s_H$ and $s_H'$.

Step 2: Policymaker’s objectives
- Given individual choices, compare all possible defaults and find the optimal default rate $r^*$ to maximize the sum of lifetime utility for Groups P, L, and H.
- Derive a formula for $r^*$ depending on statistics that can be empirically estimated.

Step 3: Formula for optimal default $r^*$

$r^*$ is determined by:
- $P$: welfare effect of saving at the default;
- $L$: welfare effect of saving at the preferred rate;
- $K$: welfare benefit of making an active choice for Group L;
- $H$: welfare effect of saving at the default.

Empirical Estimation of Key Statistics in the Optimal Default Formula

Statistic 1: Fraction of passive savers becoming active savers as the default rate changes
- Data: individual-level administrative data from OregonSaves
- Policy variation: exogenous increase in the default rate from 5% to 6% (2019) and from 6% to 7% (2020)
- Results: About half of passive savers stop saving at the default when it rises 1 percentage point.

Statistic 2: Degree of undersaving if opting out of the default
- Method: Time preferences collected from survey for OregonSaves-eligible workers in 2019
- Results: Present bias parameter = 0.995; Annual discount factor = 0.987

Calibration

- If individuals are very responsive to the default (elasticity $\rightarrow -1$, meaning that all individuals opt out of the default as it increases), the optimal default $r^*$ should be set around 6%.
- If individuals are highly present-biased (present bias parameter $\rightarrow 0$, meaning that individuals are very likely to undersave if they opt out of the default), $r^*$ should be set around 5%.

Conclusions
- Baseline optimal default rate in OregonSaves: 7%
- Optimal default in other auto-enrollment plans: between 5% and 10% under reasonable assumptions
- Determinants of the optimal default rate:
  - Individual responsiveness to the default rate: Half of passive savers stop saving at default when it rises 1 percentage point
  - Degree of undersaving if opting out of the default: Present bias parameter = 0.995