Automatic Enrollment and Optimal Defaults in a Second-Best Setting: Evidence from Auto-IRAs

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Abstract

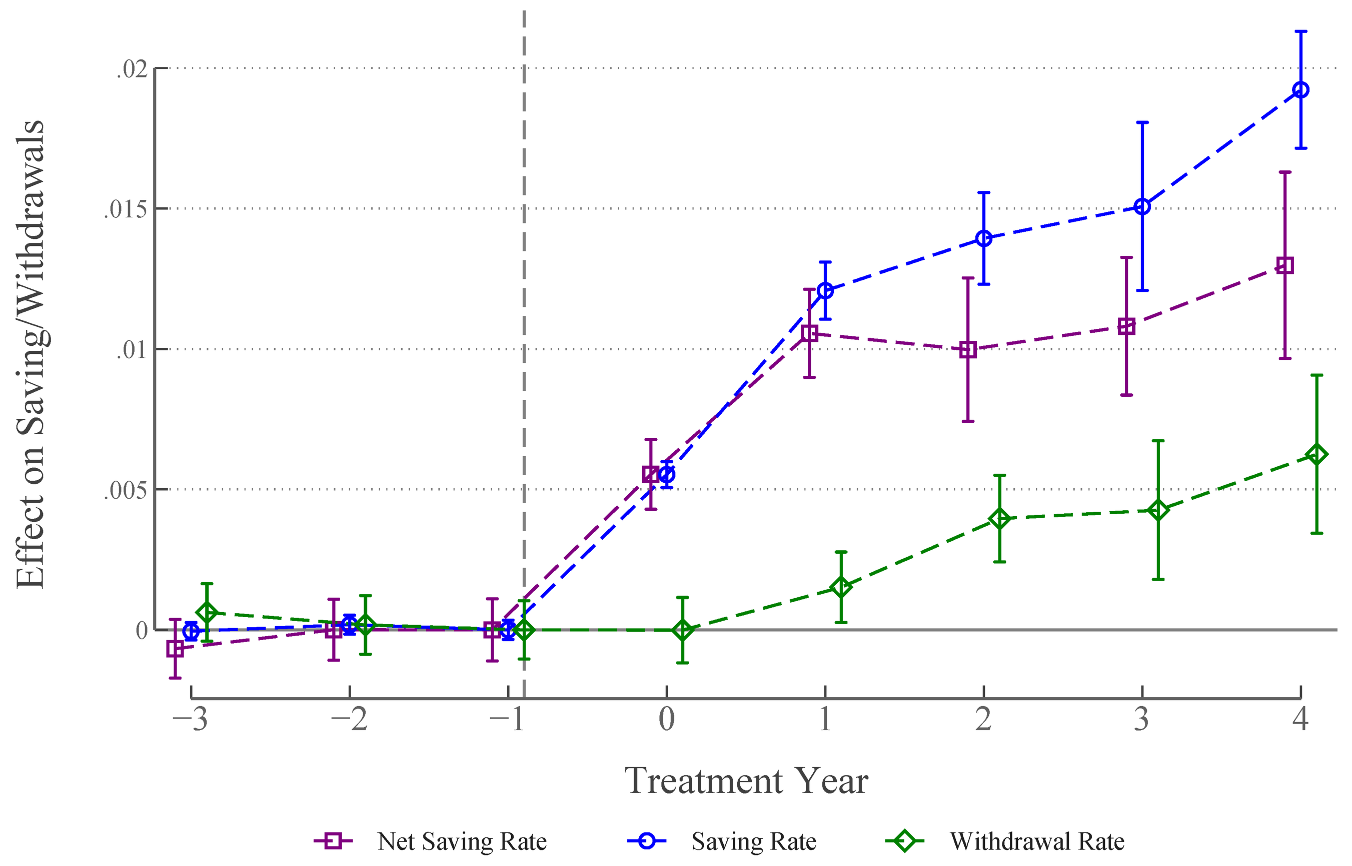
I study the effects and optimal design of automatic enrollment policies in a setting where individuals face outside frictions to when making saving decisions. Using linked employee-employer data from early-adopting states, I examine the effects of automatic enrollment in state auto-IRA programs and find persistent increases in retirement savings accumulation, with participants retaining their savings even after job separation. Leveraging the automatic escalation feature of auto-IRAs, I show that auto-IRA participants facing higher default rates are more likely to exit default rate saving and choose a zero saving rate. To rationalize these patterns, I extend standard models by incorporating two frictions for deviating from both default saving and non-saving. I structurally estimate annual frictions of 0.38% of income for default saving and 0.43% for non-saving. I then calculate the optimal default rate assuming these frictions reflect either real costs or behavioral biases, surprisingly finding this optimal rate to be stable between 2.8% and 3.7%. The results rule out high default rates that promote active choice as optimal. The findings recommend broadly attractive default rates, even if default effects reflect behavioral biases; in this case, the default rate acts as a second-best option that mitigates other distortions to saving behavior.

How do Auto-IRAs Affect Savings?

Data: administrative tax data covering all workers in early-adopting states.
Method: event study:

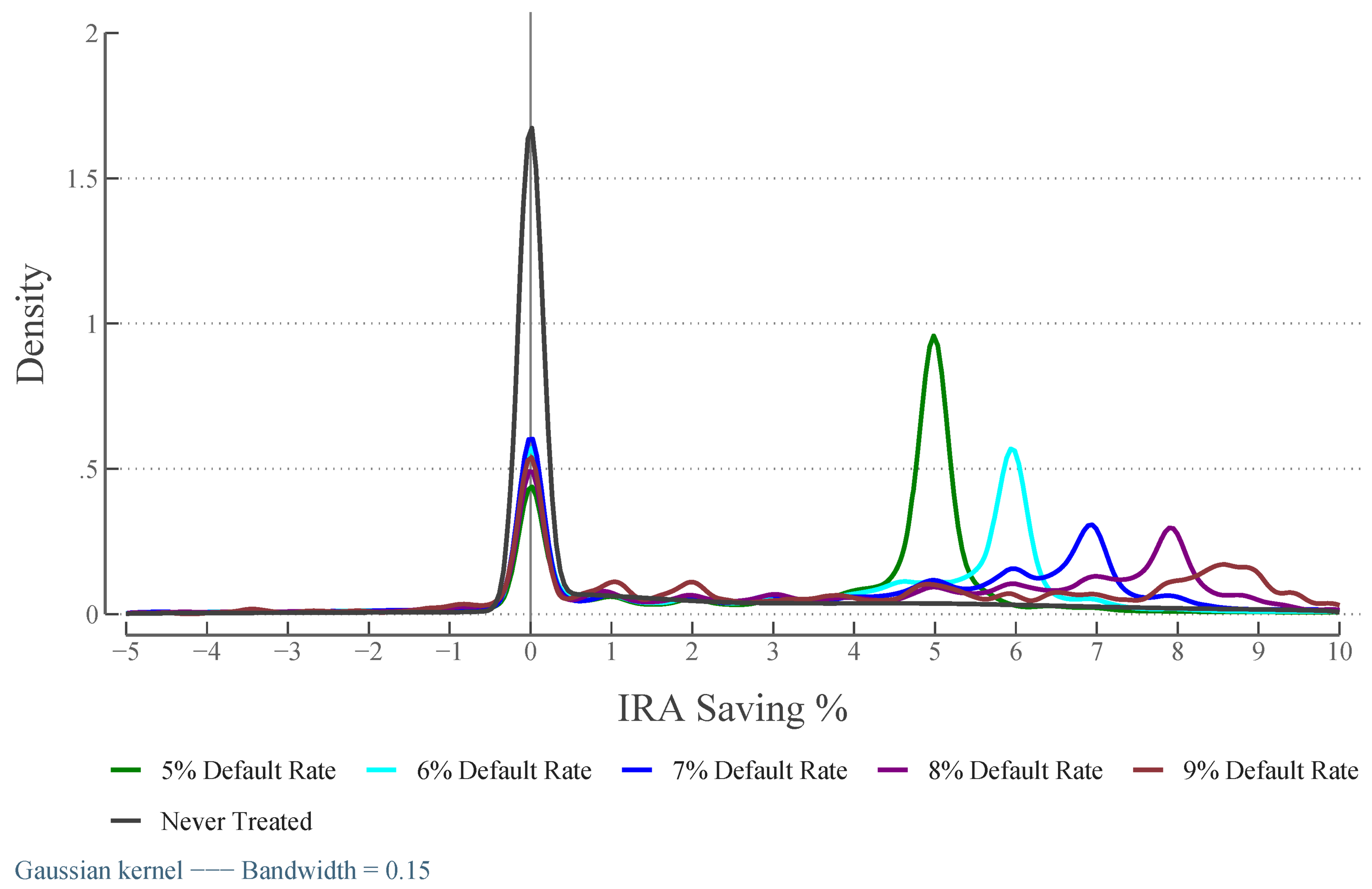
$$y_{i,t} = \sum_{k=-3}^{4} \lambda_k T_{J(i,t),t,k} + \theta_i + \psi_{J(i,t)} + \delta_t + A_{i,t}\pi + w_{i,t}\beta + \varepsilon_{i,t}$$

Finding: auto-IRAs increase saving with no evidence of attenuation or reversal.



What Model Best Captures Behavior?

Idea: because of liquidity of Roth IRAs, bunching at non-negative saving rates given position balances indicates behavioral frictions.
Finding: bunching at a zero saving and the default rate.



Theory

Environment: agents choose from a menu of options, X, where each agent i selects x_i. Two choices, d and z, are *passive choices*. Policy only affects passive choice d.

$$\textbf{Decisions: } x_i(d,z) = \arg\max_{x \in X}\{u_i(x) - \varphi_i^d 1\{x \neq d\} - \varphi_i^z 1\{x \neq z\}\}$$

$$\textbf{Welfare–relevant utility: } w_i(x,d,z) = u_i(x) - \tau_i^d \varphi_i^d 1\{x \neq d\} - \tau_i^z \varphi_i^z 1\{x \neq z\}$$

$$\textbf{Social welfare: } W(d,z) = \int_i w_i(x_i(d,z),d,z)\,di$$

Key tradeoff: setting the default option d to incentivize active choice leads many to choose passive choice z.

Quantitative Model

Approach: estimate quantitative version of theoretical model via simulated method of moments using auto-IRA data following Bernheim, Fradkin and Popov (2015) and Goldin and Reck (2022).

$$\textbf{Utility: } \omega_i \ln(x+\alpha) + \ln(1-y)$$

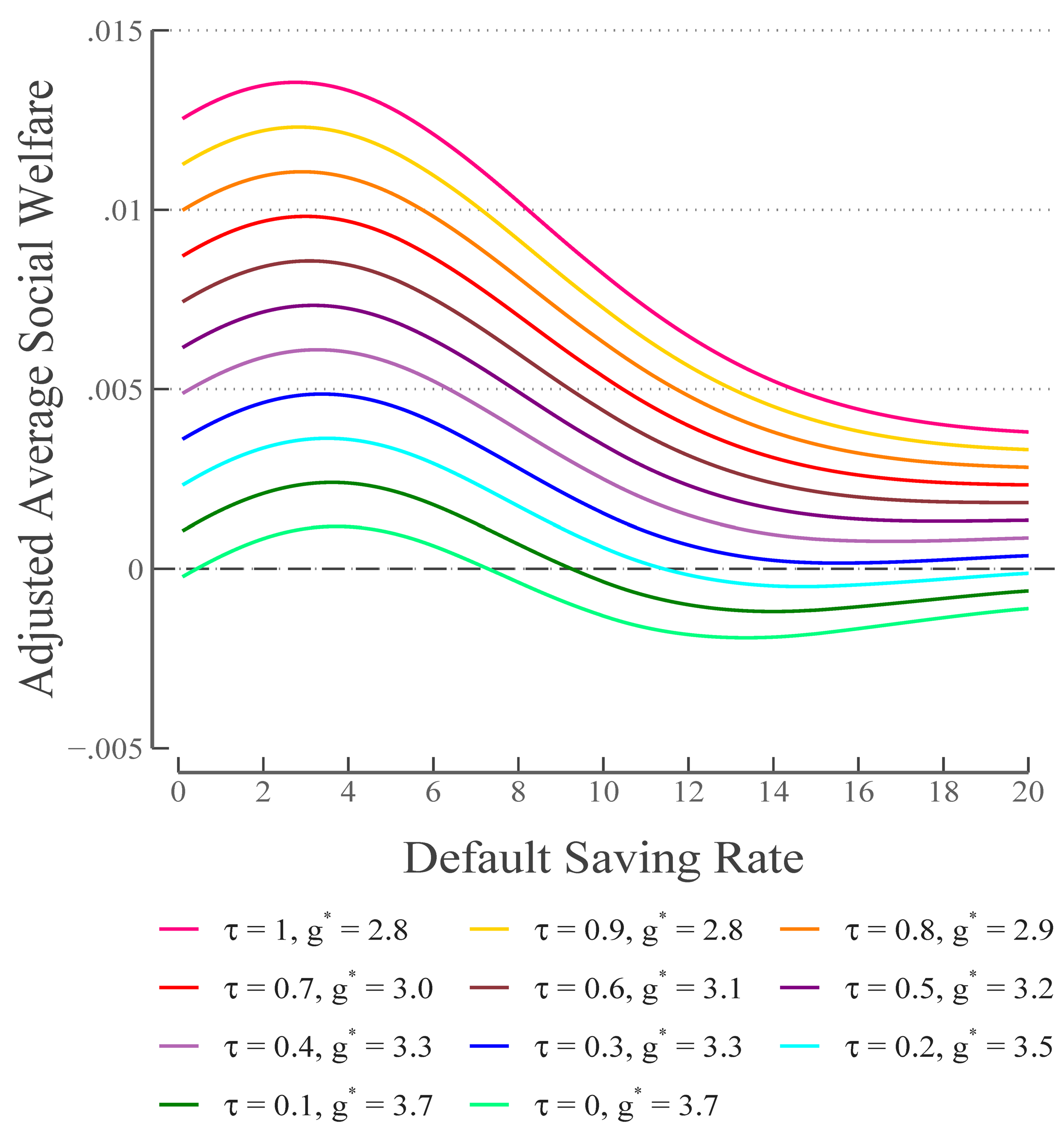
$$\textbf{Constraints: } y_i = 1 - x_i, \qquad \underline{x_i} \le x_i \le \overline{x_i}$$

$$\textbf{Frictions: } F(\varphi_i^j, j \in \{d,z\}) = \begin{cases} 0, & \varphi_i^j < 0 \\ \xi + [(1-\xi)(1-\exp(-\varphi_i^j/\rho_j), & \varphi_i^j \ge 0 \end{cases}$$

Results: annual frictions of $149.1 for default saving and $166.9 for non-saving.

Optimal Defaults

Goal: (1) simulate model for many different default rates, (2) calculate average social welfare across these simulations, and (3) assess optimal default rate under different assumptions of the normativity of frictions.
Finding: surprisingly, the optimum is relatively *invariant* to the normativity of frictions in a multi-friction model. Optimal rate between 2.8% and 3.7%**.**



Conclusion

In a **multi-friction** context, adopting a definitive position on the **behavioral mechanisms** driving default effects may not be necessary for policy design. When default effects arise from **real utility costs**, it is optimal to set a broadly attractive default rate to **incentivize passivity**. When default effects arise from **behavior biases**, it is optimal to set a broadly attractive default rate to **displace non-saving**. In this case, the default option functions as a second-best policy instrument.

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