

# The Importance of Default Options for Retirement Saving Outcomes: Evidence from the United States

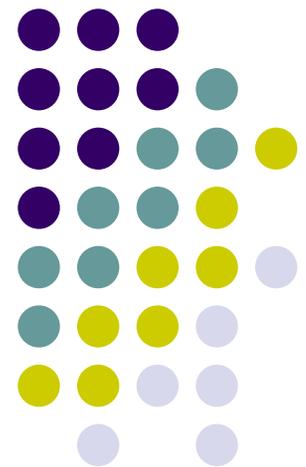
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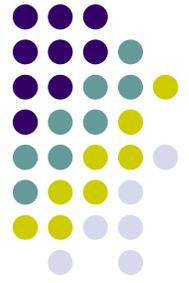
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# Introduction: Should Defaults Impact Economic Outcomes?



- Standard neoclassical theory: If transactions costs are small, defaults should not matter
- In practice, defaults have sizeable effects
  - Organ donation
  - Car insurance
  - Car purchase options
  - Consent to receive e-mail marketing
  - Savings outcomes



# Outline

- Empirical evidence on saving and defaults
  - Savings plan participation
  - Contributions
  - Asset allocation
  - Pre-retirement cash distributions / leakage
  - Decumulation/annuitization
- Explaining the impact of defaults on saving
- The role of public policy when defaults matter

# Defaults and Savings Outcomes



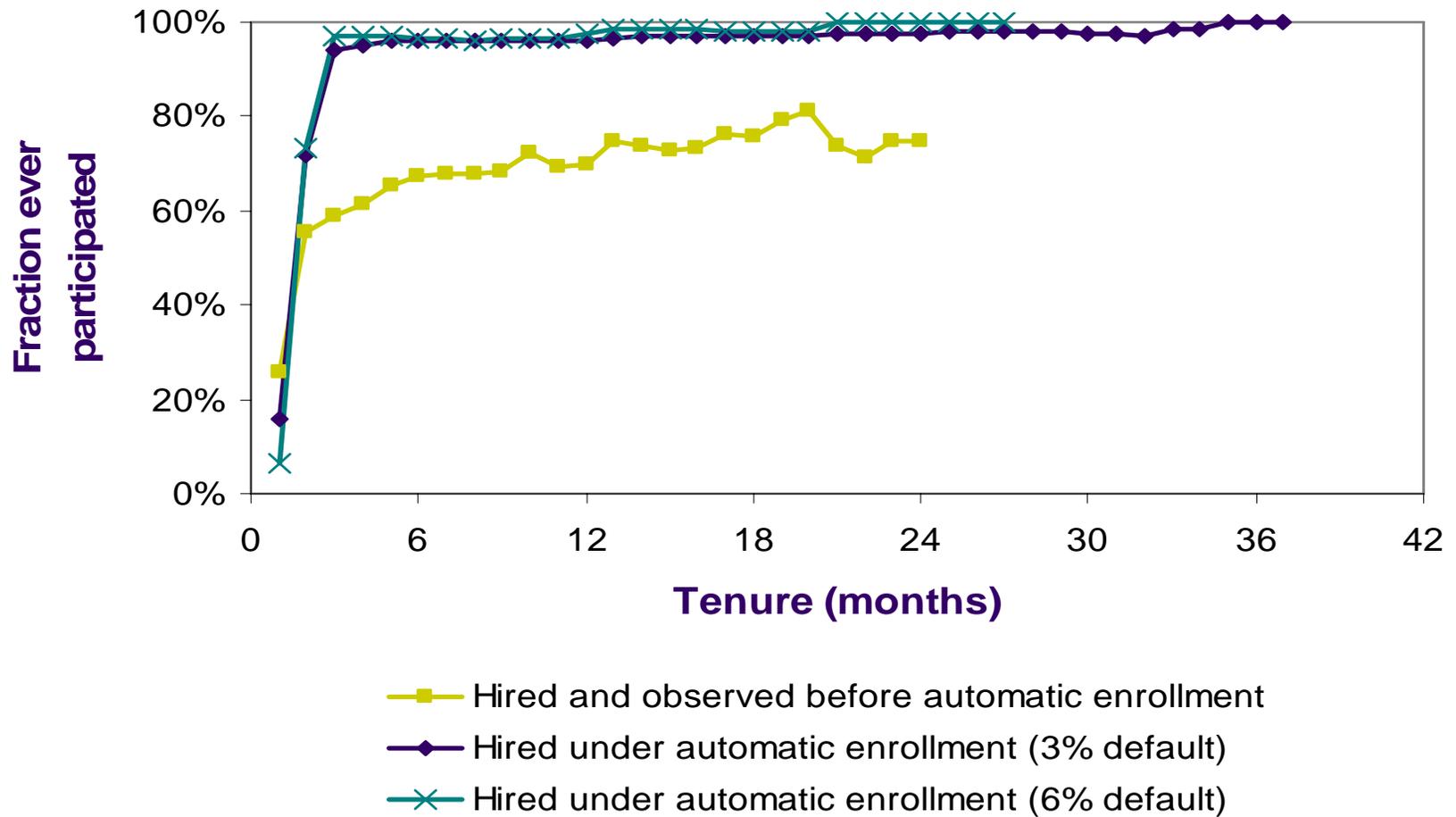
- Institutionally specified defaults
  - Savings plan participation
  - Contributions
  - Asset allocation
  - Pre-retirement cash distributions / leakage
  - Decumulation / annuitization
- “Elective” defaults

# Participation Defaults: Automatic Enrollment

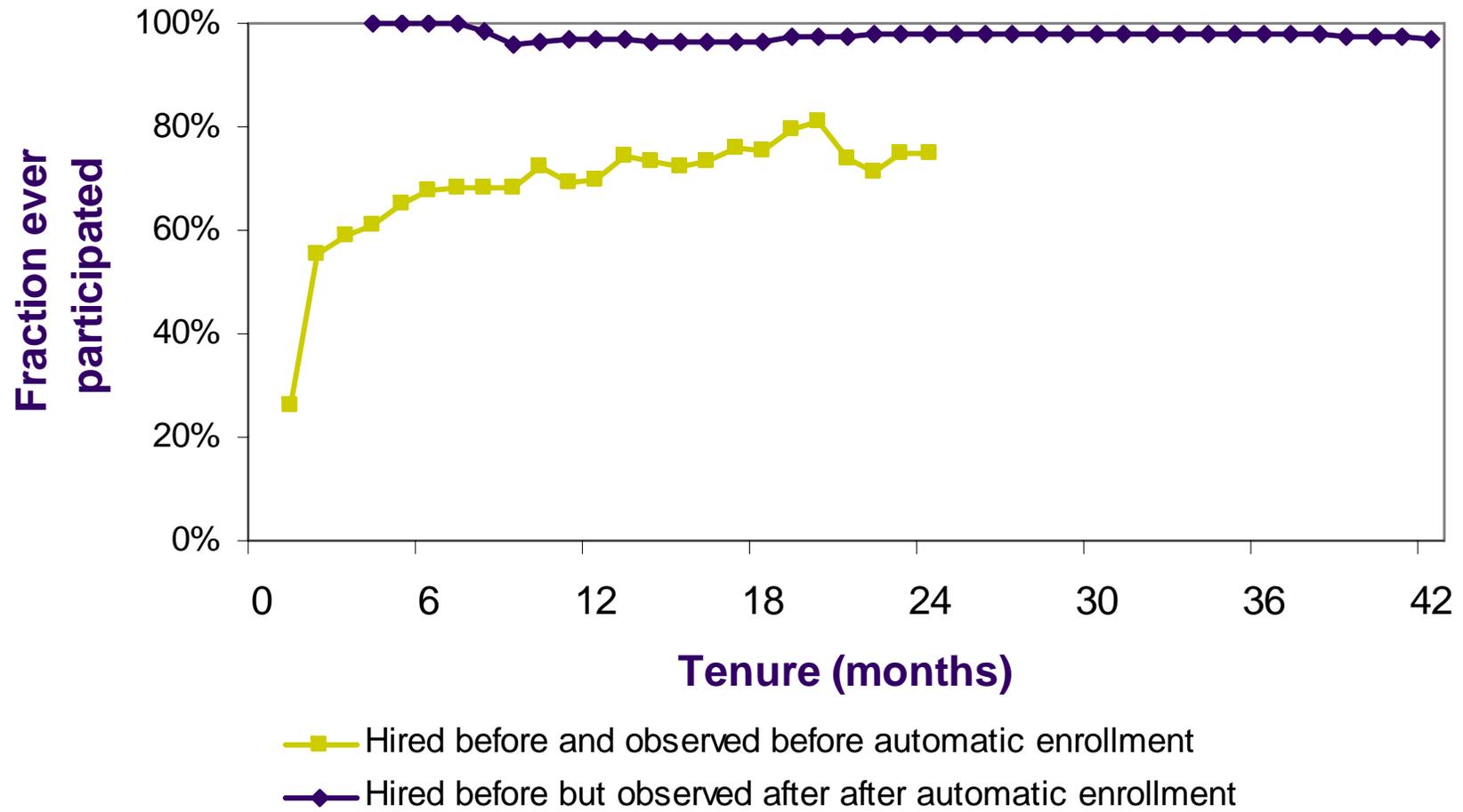


- Standard enrollment: opt-in
- Automatic enrollment: opt-out
  - Employer specifies default contribution rate and asset allocation
  - Employees have pre-specified time period (e.g., 30 days) to opt-out
- Company A
  - December 2000: 3% + money market fund
    - New hires going forward
    - Currently non-participating employees
  - October 2001: 6% + money market fund
    - New hires going forward

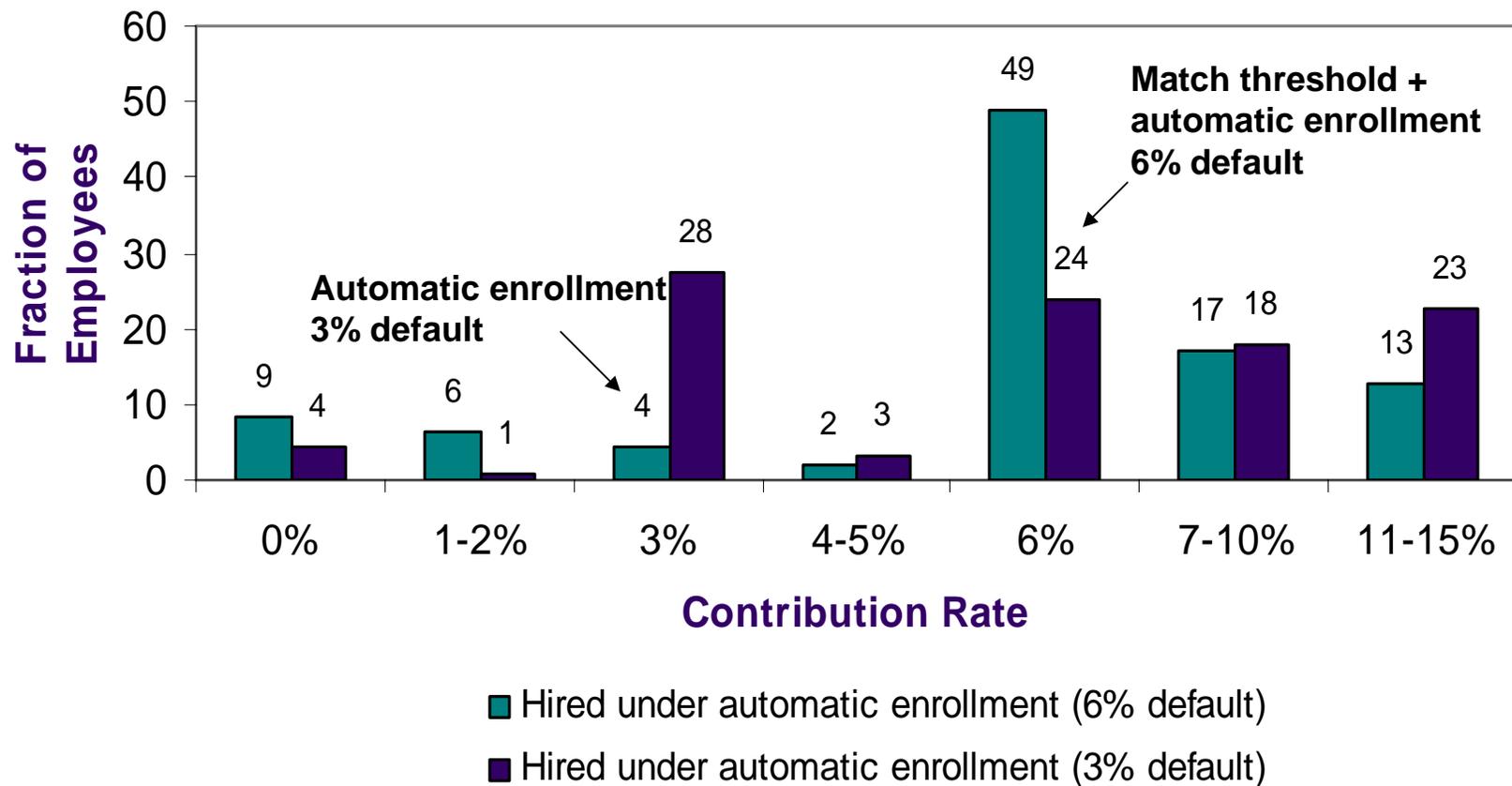
**FIGURE 1. Automatic Enrollment for New Hires and Savings Plan Participation: Company A**



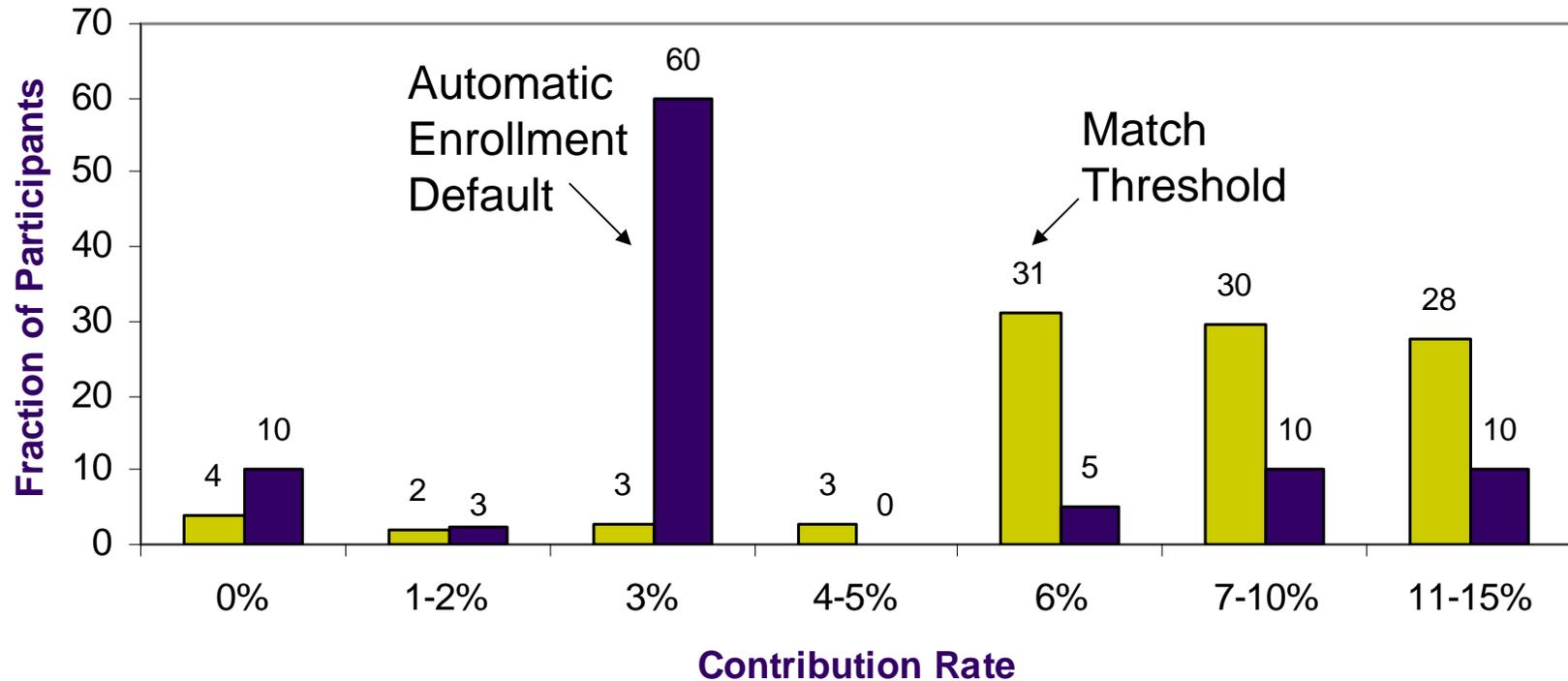
**FIGURE 2. Automatic Enrollment for Existing Non-Participants and Savings Plan Participation: Company A**



**FIGURE 3. Automatic Enrollment for New Hires and the Distribution of 401(k) Contribution Rates: Company A (15-24 months tenure)**



**FIGURE 4. Automatic Enrollment for Existing Hires and the Distribution of 401(k) Contribution Rates: Company A (25-48 months tenure)**



■ Initial participation before automatic enrollment

■ Initial participation after automatic enrollment or never participated

TABLE 1

Automatic Enrollment and Asset Allocation Outcomes

	Hired after automatic enrollment (15-24 months tenure)		Hired before automatic enrollment (25-48 months tenure)	
	3% default	6% default	No default	3% default
Any balances in default fund			10%	
All balances in default fund			1%	
100% default fund + default contribution rate			0%	

TABLE 1  
Automatic Enrollment and Asset Allocation Outcomes

	Hired after automatic enrollment (15-24 months tenure)		Hired before automatic enrollment (25-48 months tenure)	
	3% default	6% default	No default	3% default
Any balances in default fund			10%	86%
All balances in default fund			1%	61%
100% default fund + default contribution rate			0%	63%

TABLE 1  
Automatic Enrollment and Asset Allocation Outcomes

	Hired after automatic enrollment (15-24 months tenure)		Hired before automatic enrollment (25-48 months tenure)	
	3% default	6% default	No default	3% default
Any balances in default fund	34%		10%	86%
All balances in default fund	26%		1%	61%
100% default fund + default contribution rate	18%		0%	63%

TABLE 1  
Automatic Enrollment and Asset Allocation Outcomes

	Hired after automatic enrollment (15-24 months tenure)		Hired before automatic enrollment (25-48 months tenure)	
	3% default	6% default	No default	3% default
Any balances in default fund	34%	47%	10%	86%
All balances in default fund	26%	40%	1%	61%
100% default fund + default contribution rate	18%	33%	0%	63%



# Asset Allocation Defaults

- Automatic Enrollment
- Company match in employer stock (Choi, Laibson and Madrian, 2005b)
- Private account component of Swedish Social Security system (Cronqvist and Thaler, 2004)
  - Enrolled at the transition: one-third of assets in default fund
  - Subsequent enrollees: 90% of assets in default fund

# Pre-Retirement Cash Distributions



- What happens to savings plan balances when employees leave their jobs?
  - Employees can request a cash distribution or roll balances over into another account
    - Balances  $> \$5000$ : default is stay with former employer
    - Balances  $< \$5000$ : default is cash distribution
  - For employees with balances  $< \$5000$ , 70% receive a cash distribution (Choi et al. 2002, 2004a and 2004b)
  - When employees receive small cash distributions, balances typically consumed (Poterba, Venti and Wise 1998)



# Post-Retirement Distributions

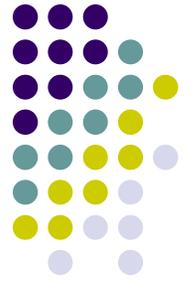
- Social Security
  - Joint and survivor annuity (reduced benefits)
- Defined benefit pension
  - Annuity
  - Lump sum payout if offered
- Defined contribution savings plan
  - Lump sum payout
  - Annuity if offered

# Defined Benefit Pension Annuitization



- Annuity income and economic welfare of the elderly
  - Social Security replacement rate relatively low on average
  - 17% of women fall into poverty after the death of their spouse (Holden and Zick 2000)
- For married individuals, three distinct annuitization regimes
  - Pre-1974: no regulation
  - ERISA I (1974): default joint-and-survivor annuity with option to opt-out
  - ERISA II (1984 amendment): default joint-and-survivor annuity, opting out required notarized permission of spouse

# Defined Benefit Pension Annuitization



- Effect of joint-and-survivor default on annuitization
  - Pre-1974: Less than half of married men have joint-and-survivor annuity
  - Post-ERISA (I + II): joint-and-survivor annuitization increases 25 percentage points (Holden and Nicholson 1998)
  - Post-1984 amendments: joint-and-survivor annuitization increases 5 to 10 percentage points (Saku 2001)

# Elective Defaults: Save More Tomorrow



- Conceptual Idea
  - Get employees to commit today to automatic contribution rate increases in the future
- Implementation in one company:
  - Employees met individually with a financial planner, who in most cases recommended an increase in the 401(k) contribution rate
  - Some employees were willing to raise their contribution rates at that time (**Group A**)
  - Most employees were not willing to raise their contribution rates at that time (**Group B**)
  - These latter individuals were given the option to sign-up for automatic 3% 401(k) contribution rate increases to coincide with future annual pay raises

# The Effect of SMT<sup>®</sup> on 401(k) Savings

	401(k) Contribution Rate		
	Before meeting with planner	After 4 raises	Increase
<b>GROUP A</b>			
▪Willing to save more now		4.4%	
▪Not offered SMarT			
<b>GROUP B</b>			
▪Unwilling to save more now		3.5%	
▪Offered SMarT			

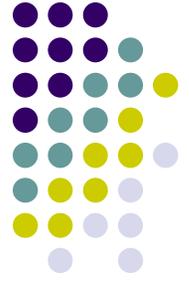
Source: Benartzi and Thaler (2004); Utkus and Young (2004)

# The Effect of SMT<sup>®</sup> on 401(k) Savings

	401(k) Contribution Rate		
	Before meeting with planner	After 4 raises	Increase
<b>GROUP A</b>			
▪Willing to save more now	4.4%	8.6%	<b>+4.4%</b>
▪Not offered SMarT			
<b>GROUP B</b>			
▪Unwilling to save more now	3.5%	13.6%	<b>+10.1%</b>
▪Offered SMarT			

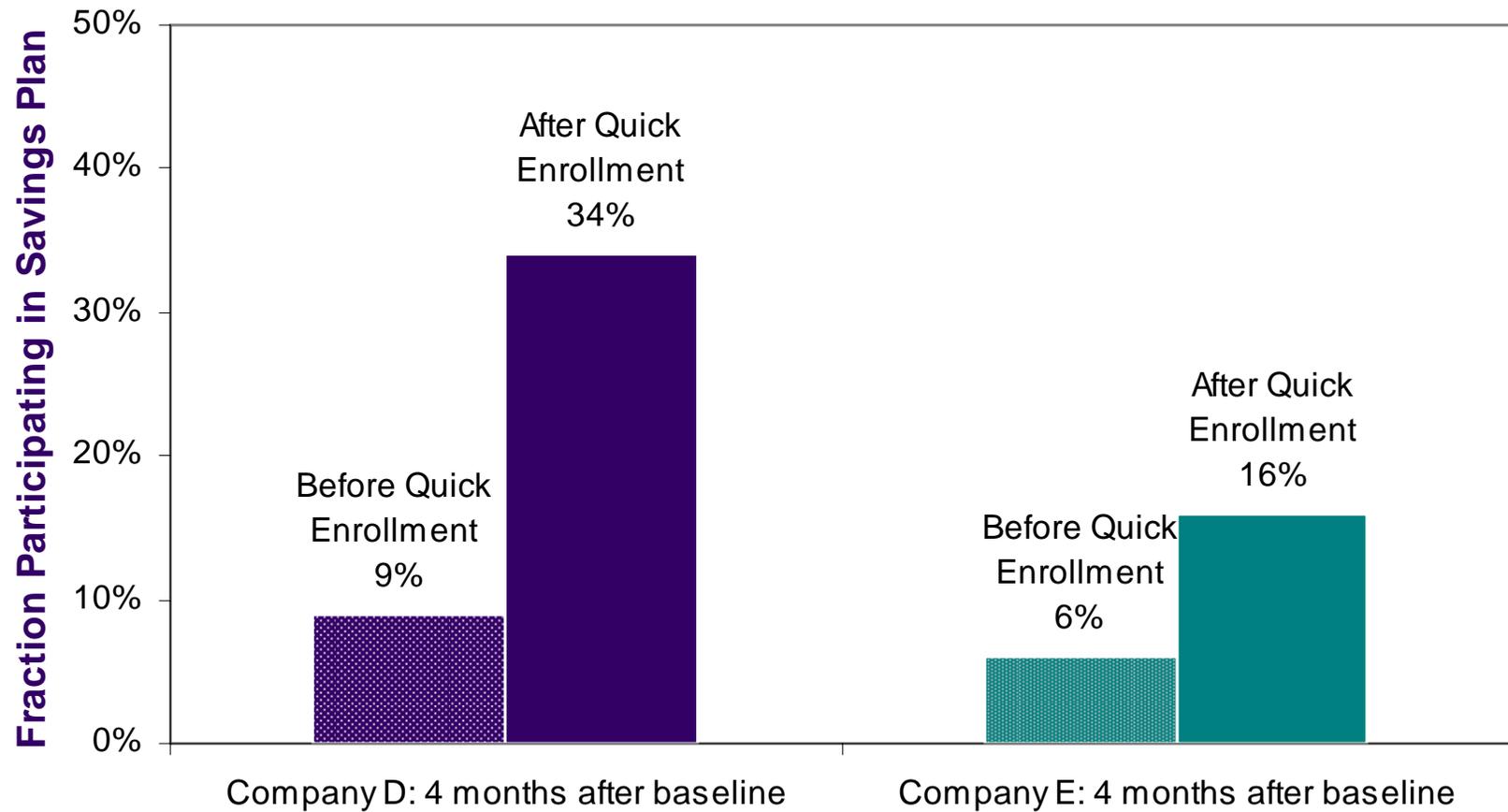
Source: Benartzi and Thaler (2004); Utkus and Young (2004)

# Elective Defaults: Quick Enrollment



- Conceptual Idea
  - Simplify the savings plan enrollment decision by giving employees an easy way to elect a pre-selected contribution rate and asset allocation bundle
- Implementation at Company B
  - New hires at employee orientation: 2% contribution rate invested 50% money market / 50% stable value
  - Existing non-participants: employee selects contribution rate invested 50% money market / 50% stable value
- Implementation at Company C
  - Existing non-participants: 3% contribution rate invested 100% in money market fund

**FIGURE 5. Quick Enrollment and Savings Plan Participation: Companies B and C**



# Explaining the Impact of Defaults: Complexity



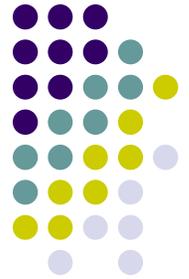
- John Hancock Financial Services Defined Contribution Plan Survey (2002)
  - 38% of respondents report that they have little or no financial knowledge
  - 40% of respondents believe that a money market fund contains stocks
  - Two-thirds of respondents don't know that it is possible to lose money in government bonds
  - Respondents on average believe that employer stock is less risky than a stock mutual fund
  - Two-thirds report that they would be better off working with an investment advisor than managing investments solo

# Explaining the Impact of Defaults: Complexity



- Typical defined contribution savings plan task:
  - Pick contribution rate: options 1% to 15%
  - Pick asset allocation: 10-15 funds
  - → Myriad of total options
- Complexity → delay
  - Psychology literature (Tversky and Shafir 1992, Shafir, Simonson and Tversky 1993, Dhar and Knowlis 1999, Iyengar and Lepper 2000 )
  - Savings literature: each additional 10 funds → 1.5 to 2.0 percentage point decline in participation (Iyengar, Huberman and Jiang 2004)

# Explaining the Impact of Defaults: Complexity



- Automatic enrollment and Quick Enrollment both decrease dimensionality of the decision-making task → participation increases
- Participation increases larger under automatic enrollment than with Quick Enrollment → the effect of automatic enrollment due to more than just reduced complexity

# Explaining the Impact of Defaults: Present-Biased Preferences



- Self control and savings outcomes: why do today what you can put off until tomorrow? (Laibson, Repetto and Tobacman 1998; O'Donoghue and Rabin 1999; Diamond and Koszegi 2003)
- Evidence
  - Participation rates under standard enrollment never exceed those under automatic enrollment
  - Employees forego employer match (Choi, Laibson, Madrian 2005a)

# Explaining the Impact of Defaults: Endorsement



- The default as advice
- Evidence
  - Automatic enrollment and asset allocation of employees hired before automatic enrollment
  - Automatic enrollment and asset allocation of employees hired after automatic enrollment who move away from the default
  - Elective employer stock allocation in firms that do and do not match in employer stock

## Asset Allocation Outcomes of Employees not Subject to Automatic Enrollment

	Any balances in default fund	All balances in default fund
Company D		
Hired before, participated before AE	13%	2%

## Asset Allocation Outcomes of Employees not Subject to Automatic Enrollment

	Any balances in default fund	All balances in default fund
Company D		
Hired before, participated before AE	13%	2%
Hired before, participated after AE	29%	16%

## Automatic Enrollment and Asset Allocation Outcomes

	Any balances in default fund	All balances in default fund
<b>Company A</b>		
Hired before AE	9.8%	1.4%
Hired after AE: non-default		
<b>Company D</b>		
Hired before AE	18.2%	5.2%
Hired after AE: non-default		

## Automatic Enrollment and Asset Allocation Outcomes

	Any balances in default fund	All balances in default fund
<b>Company A</b>		
Hired before AE	9.8%	1.4%
Hired after AE: non-default	86.1%	61.1%
<b>Company D</b>		
Hired before AE	18.2%	5.2%
Hired after AE: non-default	71.3%	30.8%



# ‘Optimal Defaults’

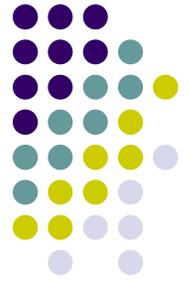
- Model of optimal savings plan enrollment/contribution rate default (Choi et al. 2005)
- Defaults matter for three reasons
  - Cost of opting-out of the default
  - Cost varies over time → option value of waiting
  - Present-biased preferences → delay
- Optimal default depends on two key parameters
  - The degree of heterogeneity in savings preferences
  - How large the tendency to procrastinate is



# ‘Optimal Defaults’

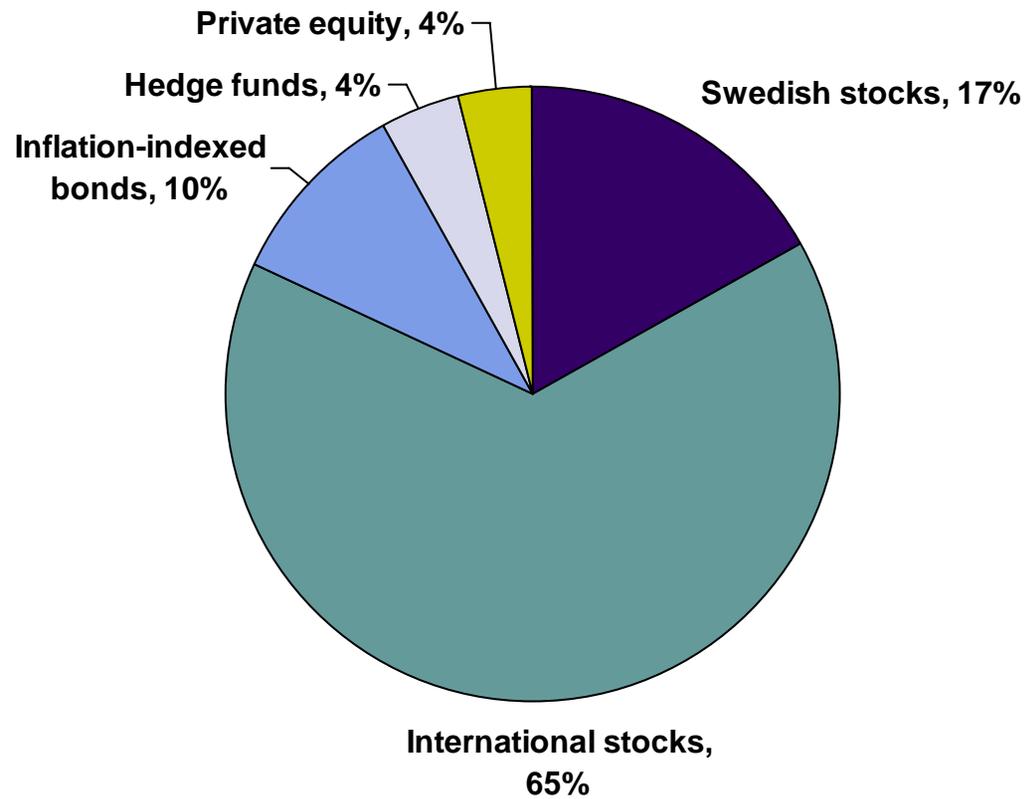
- Three classes of optimal defaults
  - Automatic enrollment
    - Optimal when employees have similar savings preferences (e.g. match threshold)
    - Limited expertise → tendency to procrastinate
  - Standard enrollment
    - Note: special case of automatic enrollment
    - Shared preference not to participate by many (e.g., high SS replacement rate of generous DB pension)
    - Heterogeneous preferences + no tendency to procrastinate
  - “Active Decision”—require individuals to take action
    - Optimal with heterogeneous preferences + tendency to procrastinate
- Key point: no single optimal default

# Public Policy and Defaults: Swedish Social Security Personal Account Asset Allocation

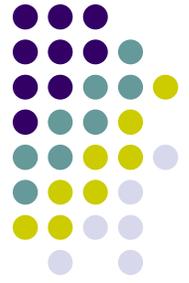


- Swedish default vs. automatic enrollment
  - Many funds vs. only one fund
  - Well diversified across geography, sectors, assets
- Expense ratio
- Actual performance of those in the default fund exceeds that of those who elected their own asset allocation (Cronqvist and Thaler 2004)

## Asset Allocation of the Swedish Social Security Personal Account Default Fund



# Public Policy and Defaults: Annuitization



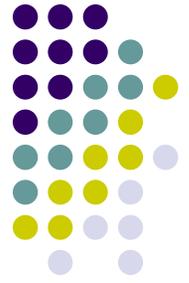
- Interesting aspects of the joint-and-survivor annuity default discussed earlier
  - Differentiated default: singles vs. marrieds
  - Annuity election irrevocable
  - Implicit deadline—must either accept or opt-out of the default before receiving pension payments
- Note
  - Largely homogenous preferences
  - Similarities to active decision approach
  - Reduced scope for procrastination
  - Those who do opt-out of joint-and-survivor annuity appear to have economically sound reasons for doing so (Johnson, Uccello and Goldwyn 2003)

# Public Policy and Defaults: Annuitization



- Thinking more generally about retirement income annuitization and defaults in a defined contribution world
  - Understanding annuitization options is complicated for financial novices → strong endorsement effect likely
  - Taking a lump-sum is the only way to preserve option value
  - BUT, lump-sums → potential self-control problems
- Annuitization and defined contribution savings plans
  - Required annuitization?
  - Default annuitization option?
  - Active decision approach

# Public Policy and Defaults: Pre-Retirement Cash Distributions



- Cash distribution default for balances of <\$5000 → leakage from retirement savings
- Response: balances of \$1000-\$5000
  - Employers can maintain these balances
  - Employers can roll over into an IRA
- Default asset allocation for IRA rollover must preserve principal

# Public Policy and Defaults: Match in Employer Stock



- Employer stock in defined contribution savings plan: little regulation
- Employer stock in defined benefit pension plan: strict 10% limit
- Strong evidence that employees misperceive the risks of employer stock (familiarity bias)
- Policy alternatives
  - Preclude employer stock from savings plans altogether (correlated risks)
  - Preclude employers from defaulting matching contributions into employer stock (e.g., preclude companies from choosing a single life annuity as a default for married individuals)



# Conclusion

- Defaults are not neutral when it comes to savings outcomes
- Implications
  - Employers/institutions can enhance savings outcomes by establishing sensible defaults
  - Governments can regulate employers/institutions so as to encourage defaults that promote better outcomes
- Current public policies include examples of defaults that both help and hinder better savings outcomes