



When and How to Delegate? A Life Cycle Analysis of Financial Advice

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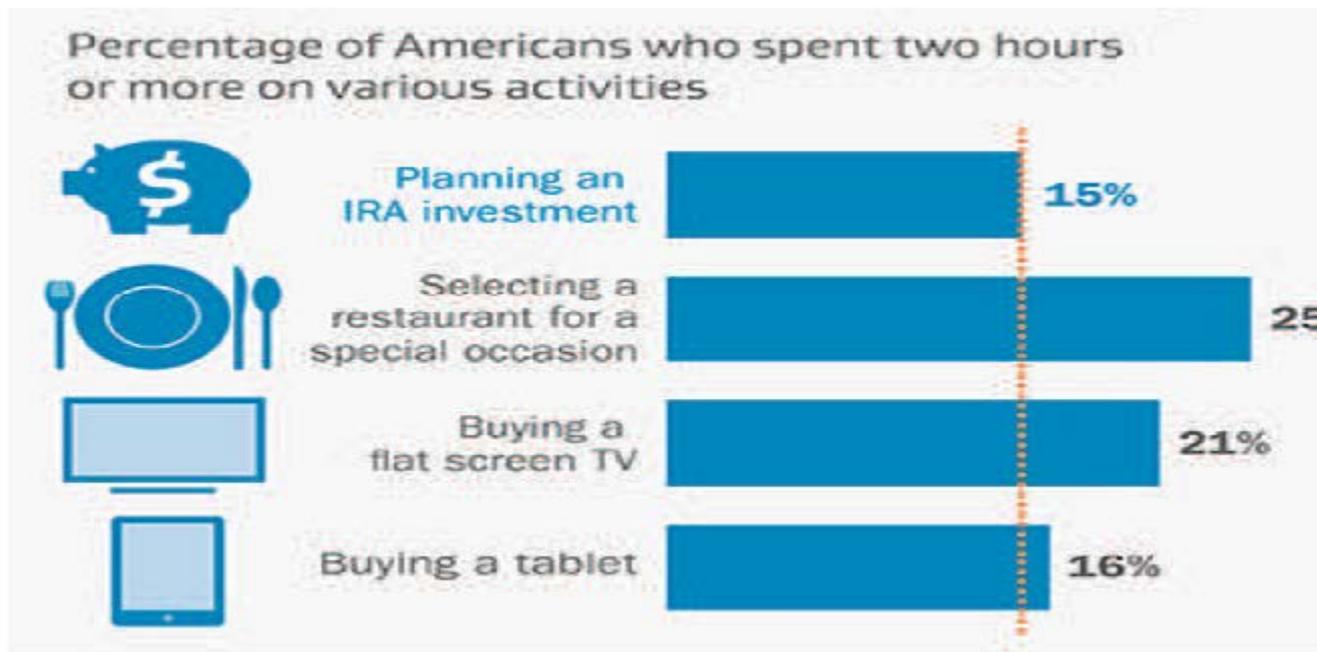




Motivation

- Standard finance theory assumes investors will **change their portfolios** if environment changes.
- But most people devote **sparse attention to their financial portfolios** and do not actively manage their own finances.

Time spent on financial planning



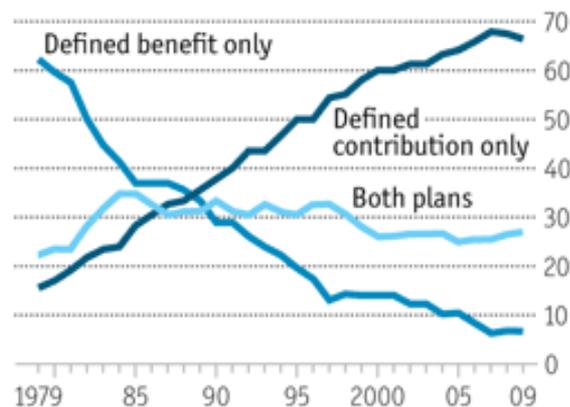
- 60% of Americans admit financial management needs improvement.
 - Most common excuse is not having enough time (24%)
 - Having no interest (21%), finding it confusing (20%)
 - Not knowing where to get help (19%)

Reality of Financial Management

- Agnew/Balduzzi/Sunden (AER 2003): “Most asset allocations are extreme (either 100 percent or zero percent in equities) and **there is inertia in asset allocation.**”
- Brunnermeier/Nagel (AER 2008): “(..) **one of the major driver of household portfolio allocations seems to be inertia**”
- “A very large proportion of the population has no interest, knowledge or time to direct their retirement accounts. They are known as the **unengaged majority**” -- *The Economist* (April 2011)

So long, DB

America's retirement plans by type, % of total
Private sector, active participants



Sources: EBRI; Department of Labour; J.P. Morgan



Questions and Contributions

- What **policy options** can increase investor welfare?
 - How much value can a **financial advisor** deliver to inattentive investors?
 - **When** can it help the most?
 - **What type**: simple rule-based vs. customized advice?
- Why do many investors retain portfolio allocations for a long time (i.e., inertia)?
 - Rational choice (Kim, Maurer and Mitchell, 2016) incorporating **opportunity cost of time for financial decision making**.

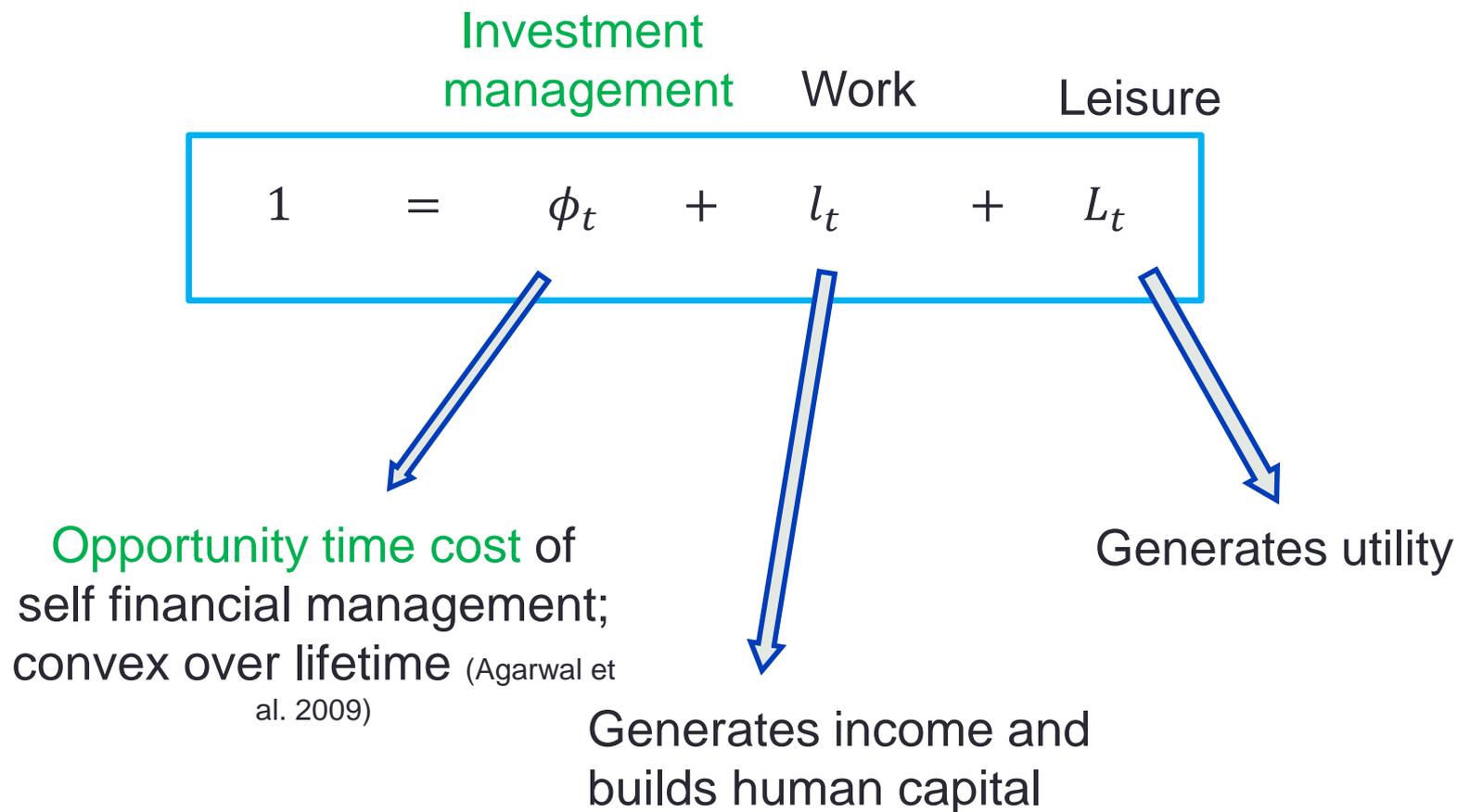


Our Main Results

- **Early access** to a delegation option is beneficial.
 - A delegation option provided 10 years later decreases welfare 50%.
- Simple target date funds **(TDF) do not beat** customized financial advice in terms of welfare benefit.
 - **Simpler portfolio products would need to be provided at zero cost**, in order to benefit consumers as much as a customized service.



Financial Decision Making Does Not Come Free: Time Budget Constraint with Investment Management





Labor Income and Human Capital Accumulation

- **Job-specific skill (human capital)** accumulated in a learning-by-doing fashion (Arrow 1962 / Becker 1964):
 - Prior to retirement, **labor income** affected by work hours, human capital, and exogenous shocks
- **Active management** incurs time cost.
 - Forgone opportunity to accumulate more human capital
- **Portfolio inertia:** retain previous period's stock balance into the next period, incurring no time cost.

Our Baseline Lifecycle Setting

Utility of consumption & leisure

$$V_t = \frac{(C_t L_t^\alpha)^{1-\gamma}}{1-\gamma} + \beta E_t(p_t^s V_{t+1})$$

Household: US female; middle income; $\gamma=3$; $\alpha=1.3$, $\beta=0.98$

Labor market: Stochastic wage rate, endogenous human capital

Capital market: Risk-free bond 2%, risky stock iid $N(6\%, 20.5\%)$

Financial advisors: delegation fee 1.3% of AuM

Retirement (age 65): full leisure, pension benefits, shocks

Numerical dynamic optimization; 10K life cycles simulated

Consumption

Labor supply/
Leisure

Asset allocation

Portfolio Mgt.
Method

Four state variables: wealth, human capital, equity share, wage shock
Solution by numerical integration using MC approach

Portfolio inertia over life cycle

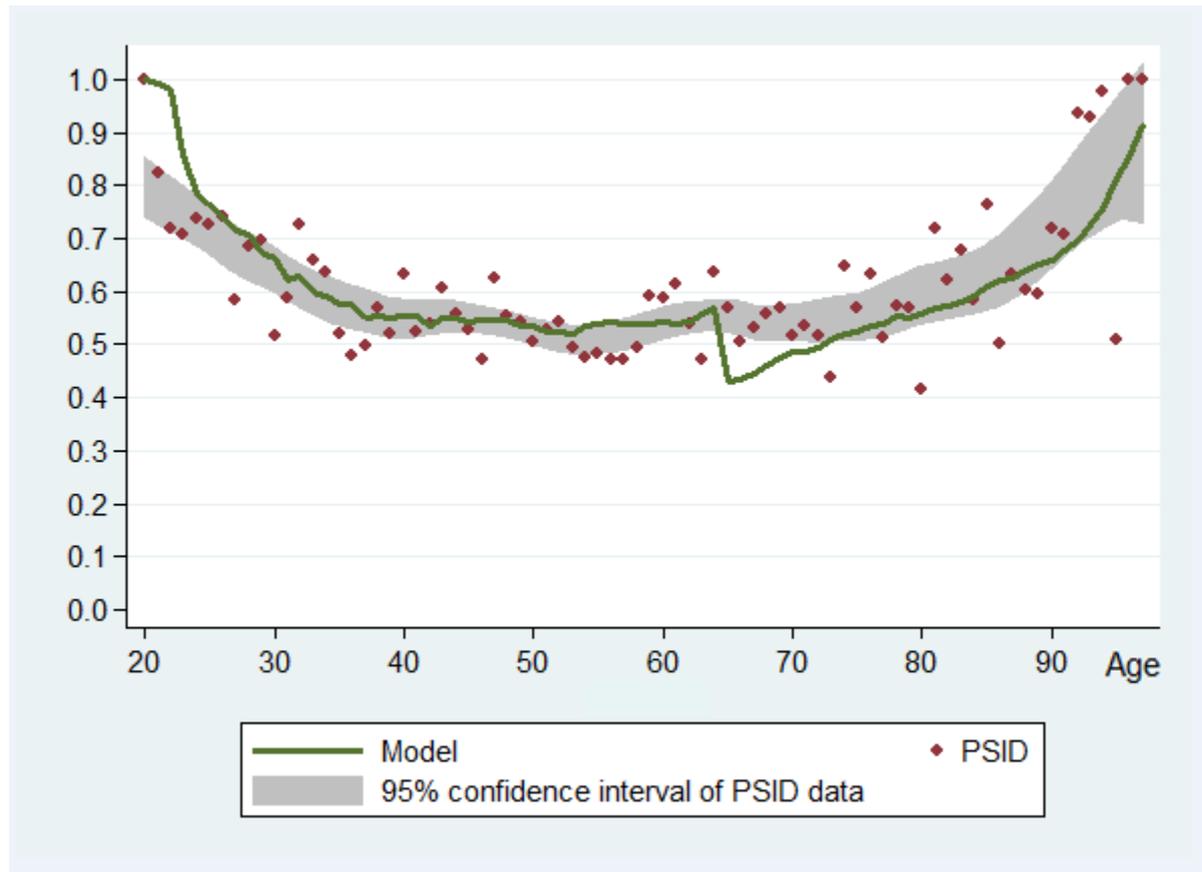


Figure 4 from Kim, Maurer and Mitchell (2016)

- Baseline model **matches closely the empirical pattern** of inertia with 2~4% of time cost for active portfolio management.

Fee Structure for Financial Advisory Services

Type of advisory fee	# of advisers
A percentage of asset under management (AUM)	10,727 (94.73%)
Fixed fee (other than subscription fee)	4,661 (41.16%)
Performance-based fee	4,354 (38.45%)
Hourly charges	3,174 (28.03%)
Commissions	562 (4.96%)
Subscription fee	128 (1.13%)
Other	1,623 (14.33%)

Source: Authors' tabulation from the SEC Form ADV

Our approach

- variable fee: 1.41% of AUM if delegate
- minimum fixed fee: \$2,100



Policy experiments

- Policy experiment 1:
 - **When** is delegation most helpful?
 - Introduce delegation option at different ages

- Policy experiment 2:
 - **Simple rule vs. customized advice**
 - How much value does customized advice deliver?

Welfare Analysis of Experiments

- Experiment 1: When to have a delegation option?

	(1) Age=20	(2) Age=30	(3) Age=45	(4) Age = 60
(a) Welfare Gain	1.07	0.51	0.19	0.02

- Experiment 2: Welfare benefit of rule-based options

Investment Glide Path	(1) Mgmt fee=0.84%	(2) Mgmt fee=0.5%	(3) Mgmt fee=0.2%	(4) Mgmt fee=0%
(a) 60%	0.52	0.63	0.88	1.10
(b) 60% → 20%	0.49	0.59	0.84	1.06
(c) 100-age	0.38	0.56	0.81	0.94
(d) 80-age	0.56	0.69	0.98	1.20



Conclusions

- **Early access** to a delegation option is beneficial.
 - If introduced 10 years later, welfare lowers by 50%.
- Simpler **target date funds (TDF) do not beat** customized financial advice in terms of welfare benefit.
 - Simpler portfolio products would need to be provided at zero cost, in order to benefit consumers as much as customized financial advice.
- **Generating alpha may not be a necessary reason** to seek financial advice



Additional slides



Related Literature

- Optimal dynamic consumption & portfolio allocation
 - ✓ Cocco/Gomes/Maenhout (2005); Gomes/Michaelidis (2005)
- Portfolio allocation with flexible labor supply
 - ✓ Bodie/Merton/Samuelson (1992); Gomes/Kotlikoff/Viceira (2008); Chai/Horneff/Maurer/Mitchell (2011)
- Impact of Investor inattention on stock prices
 - ✓ Jagannathan/Wang (2007); Dellavigna/Pollet (2008), Abel et al. (2013)



Portfolio Choice and Wealth Dynamics

- At time t , individual selects portion π_{t+1} ($1 - \pi_{t+1}$) of investable wealth allocated to risky equities (risk-free bonds), portfolio generates an uncertain return of:

$$R_{t+1}^p = (1 - \pi_{t+1})\bar{R} + \pi_{t+1}R_{t+1}.$$

- Dynamic budget constraint can be formulated as

$$W_{t+1} = R_{t+1}^p(W_t + E_t - C_t)$$

where C_t is consumption and E_t is labor earnings.

Calibrated Parameters

Parameter	Baseline
Working periods	45
Retirement periods	35
Time discounting β	0.98
Risk aversion γ	3
Leisure preference α	1.3
Experience formulation a	0.2192
Elasticity of H_t accumulation θ	0.2954
Depreciation of Human Capital δ_t	0.07% \times age per annum
Inefficiency of financial decisionmaking ϕ_t	$\frac{0.09-0.03}{30^4} (t - 30)^4 + 0.03$
Wage shock drift η	0
Wage shock auto correlation ρ	0.85

Calibrated Parameters

Parameter	Baseline
Std. of permanent wage shock σ_{wage} (pre-retirement)	0.2917
Std. of permanent earnings shock (post-retirement)	0.28
Replacement rate	20% of maximum earnings at age 65
Risk premium	0.04
Std. of stock return σ_{stock}	0.205
Risk free rate \bar{R}	1.02
Delegation annual fee: variable rate φ_t	1.3% per annum
Delegation annual fee: fixed fee	0
Correlation between wage and stock return $\rho_{\varepsilon, \zeta}$	0.15
Initial wealth for simulation W_0	0
Initial human capital for simulation H_0	10
Initial equity share for simulation	40%
Initial wage shock for simulation y_0	0.1