

How Past Performance Framing Impacts Investors' Belief Updating

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Why belief updating matters...

- Beliefs: **R**eturn **E**xpectations & **R**isk **P**erceptions
- Drive investment decisions (HPP 2013)

active trading   investment performance 
(Barber & Odean 2000)

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Default presentation formatting

Default option

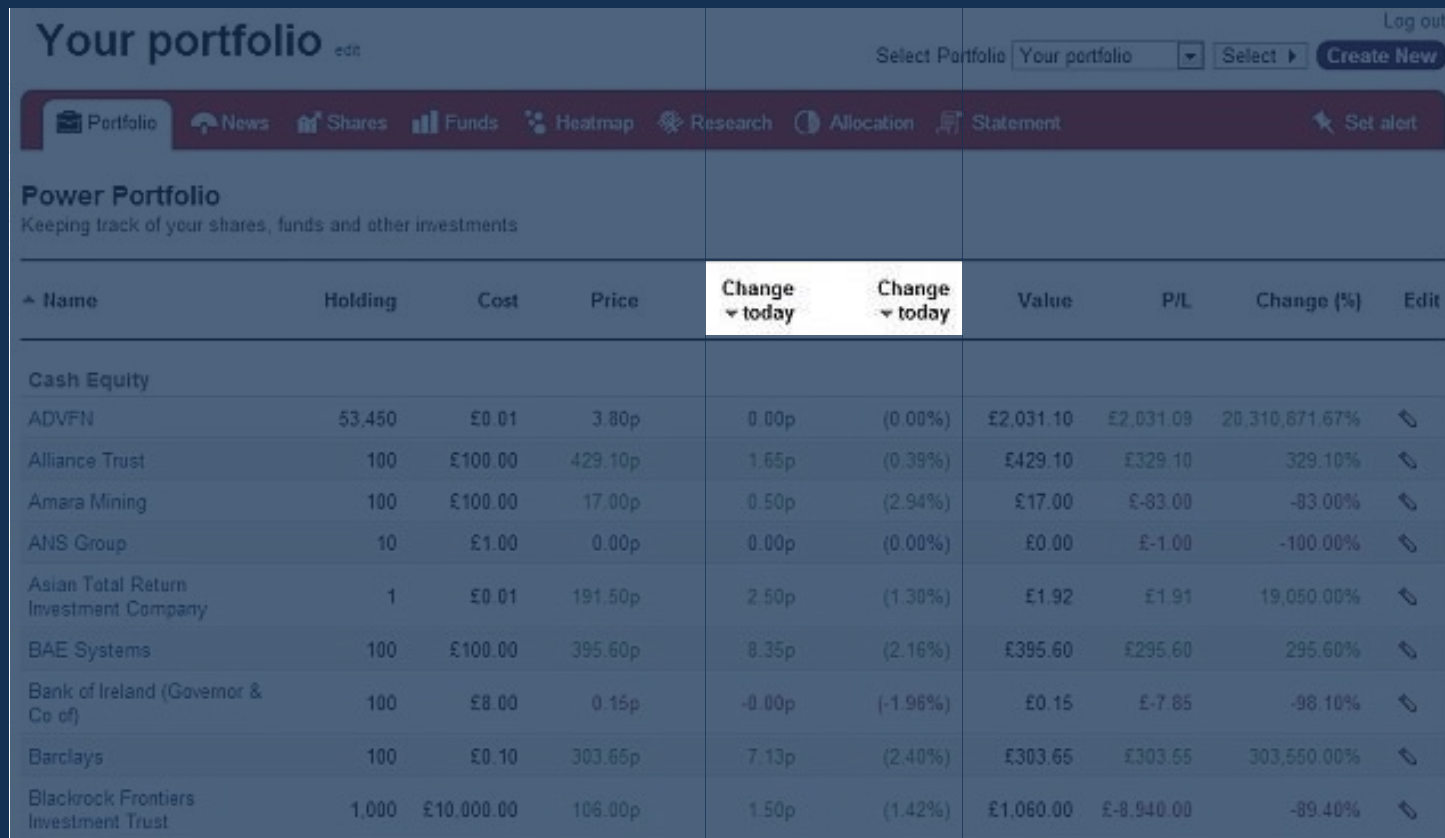
- Easy to implement

The screenshot shows a web interface for a portfolio named 'Power Portfolio'. At the top, there's a navigation bar with icons for Portfolio, News, Shares, Funds, Heatmap, Research, Allocation, and Statement. Below this is a table of holdings. The table has columns for Name, Holding, Cost, Price, Change today, Change % today, Value, P/L, Change (%), and Edit. The holdings listed include ADVFN, Alliance Trust, Amara Mining, ANS Group, Asian Total Return Investment Company, BAE Systems, Bank of Ireland (Governor & Co of), Barclays, and Blackrock Frontiers Investment Trust.

Name	Holding	Cost	Price	Change today	Change % today	Value	P/L	Change (%)	Edit
Cash Equity									
ADVFN	53,450	£0.01	3.80p	0.00p	(0.00%)	£2,031.10	£2,031.09	20,310,671.67%	
Alliance Trust	100	£100.00	429.10p	1.65p	(0.39%)	£429.10	£329.10	329.10%	
Amara Mining	100	£100.00	17.00p	0.50p	(2.94%)	£17.00	£-83.00	-83.00%	
ANS Group	10	£1.00	0.00p	0.00p	(0.00%)	£0.00	£-1.00	-100.00%	
Asian Total Return Investment Company	1	£0.01	191.50p	2.50p	(1.30%)	£1.92	£1.91	19,050.00%	
BAE Systems	100	£100.00	395.60p	8.35p	(2.16%)	£395.60	£295.60	295.60%	
Bank of Ireland (Governor & Co of)	100	£8.00	0.15p	-0.00p	(-1.96%)	£0.15	£-7.85	-98.10%	
Barclays	100	£0.10	303.65p	7.13p	(2.40%)	£303.65	£303.65	303,550.00%	
Blackrock Frontiers Investment Trust	1,000	£10,000.00	106.00p	1.50p	(1.42%)	£1,060.00	£-8,940.00	-89.40%	

Default option

- Easy to implement



The screenshot displays a web interface for managing a portfolio. At the top, it says "Your portfolio" with an "edit" link. To the right, there's a "Select Portfolio" dropdown menu currently set to "Your portfolio", a "Select" button, and a "Create New" button. Below this is a navigation bar with icons for Portfolio, News, Shares, Funds, Heatmap, Research, Allocation, and Statement, along with a "Set alert" button. The main content area is titled "Power Portfolio" with the subtitle "Keeping track of your shares, funds and other investments". Below this is a table with the following columns: Name, Holding, Cost, Price, Change today, Change today, Value, P/L, Change (%), and Edit. The table lists several investments, including Cash Equity, ADVFN, Alliance Trust, Amara Mining, ANS Group, Asian Total Return Investment Company, BAE Systems, Bank of Ireland (Governor & Co of), Barclays, and Blackrock Frontiers Investment Trust.

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Prior work...

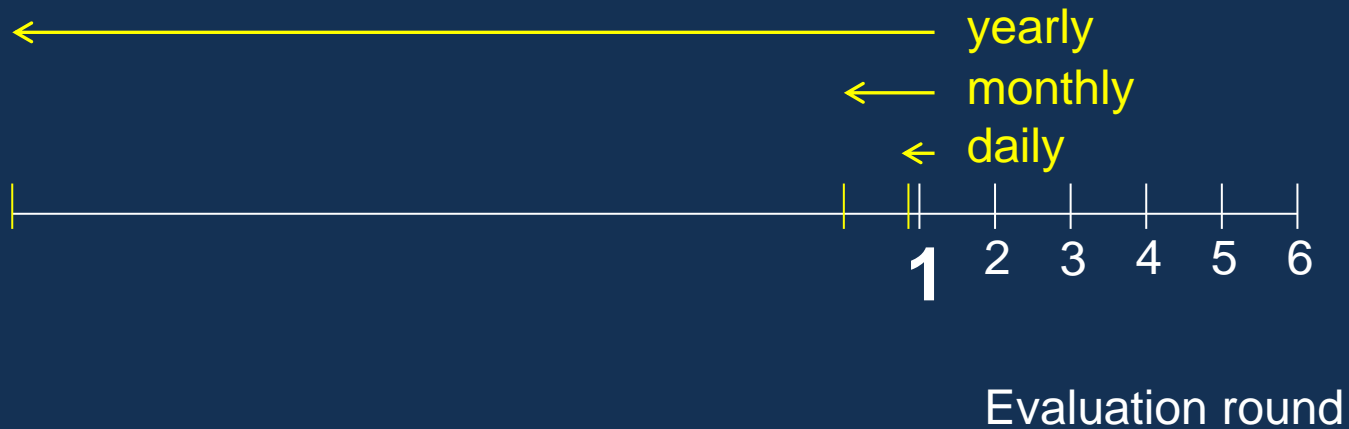
- Longer evaluation horizon beneficial for investors:
 - Beshears et al. 2014
 - Looney & Hardin 2009
 - Gneezy & Potters 1997
 - Benartzi & Thaler 1995
- **But:**
 - Impose restrictions
 - Vary available information
 - Limit decision-making freedom

...and our setup

- Realistic
- Easy to implement
- No restriction in information provision
- Only default changes
- Nudge

Experiment

- How it works



Experiment

- How it works

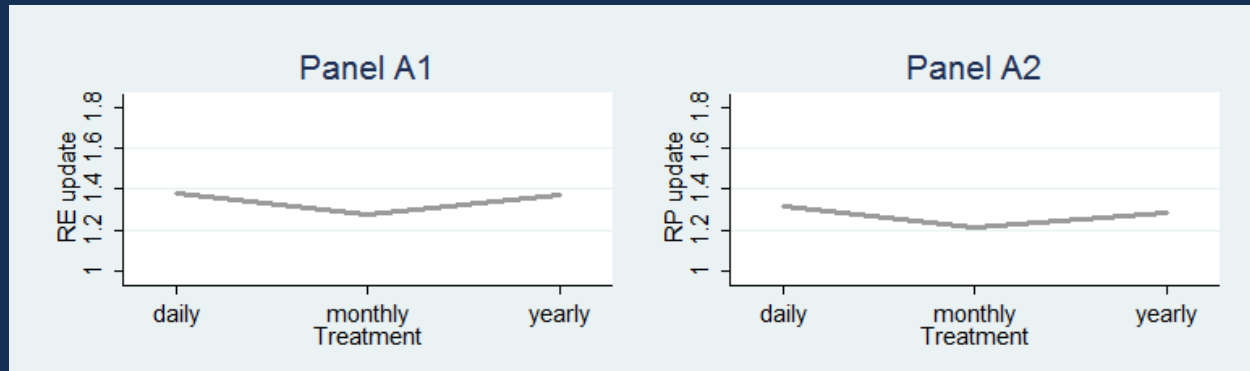


Experiment

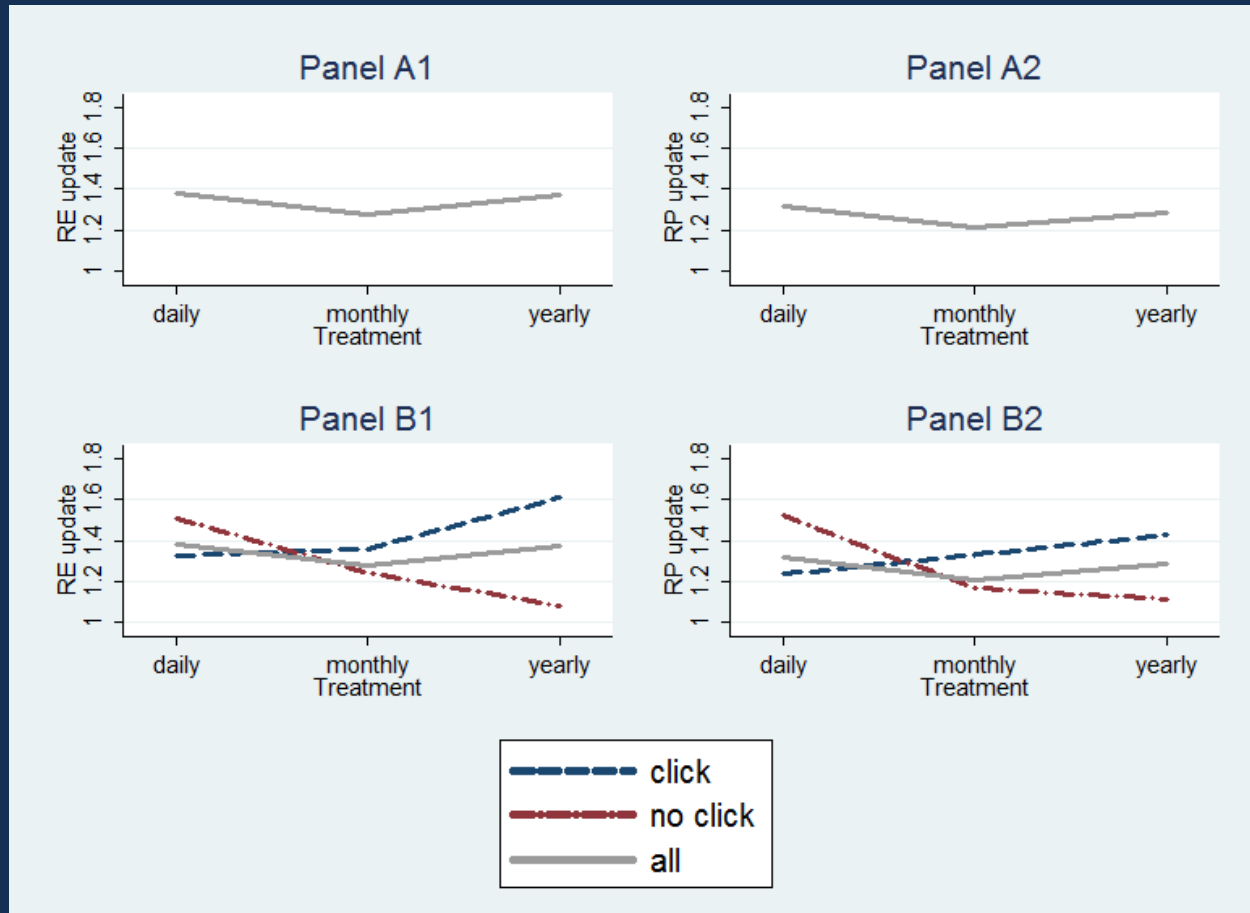
- How it works



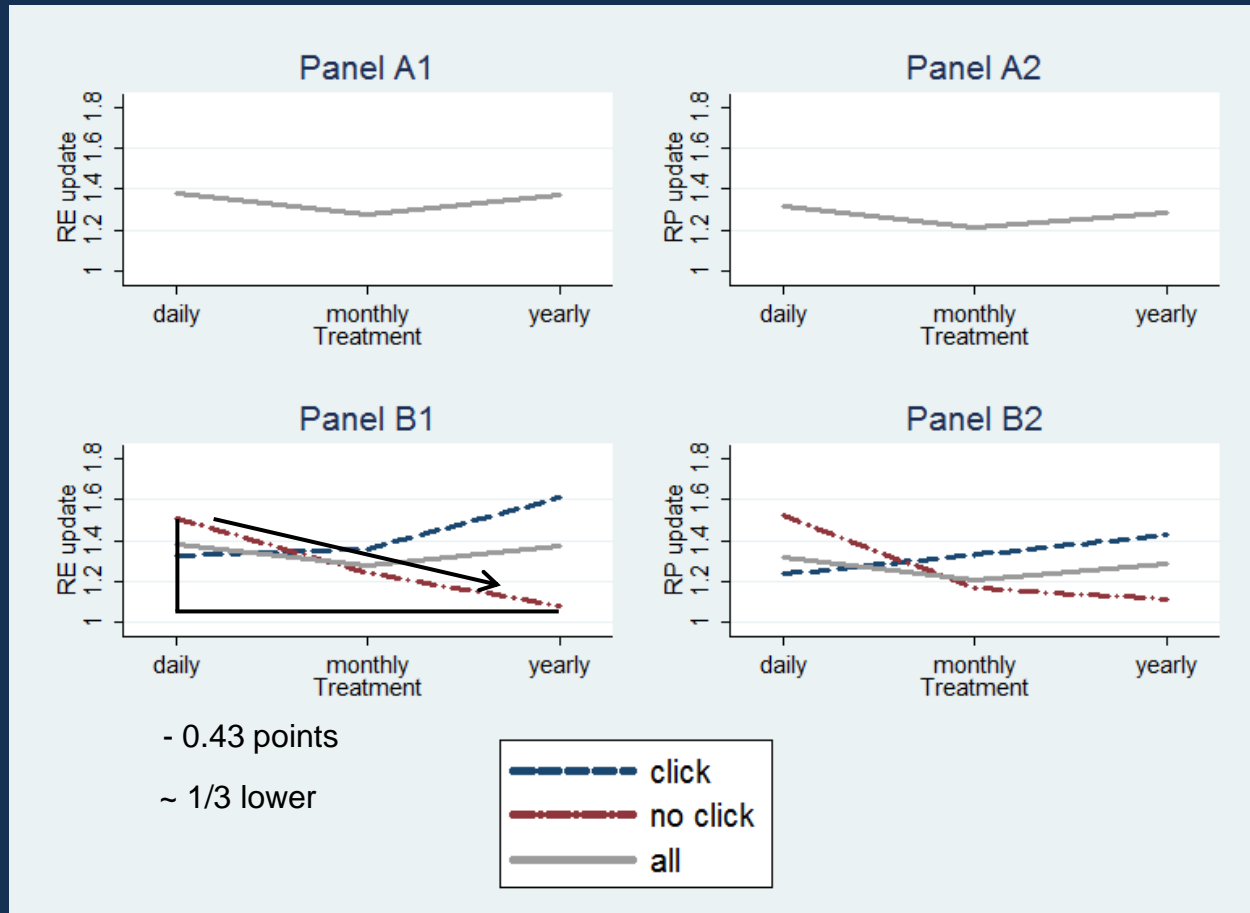
Belief updating across treatments



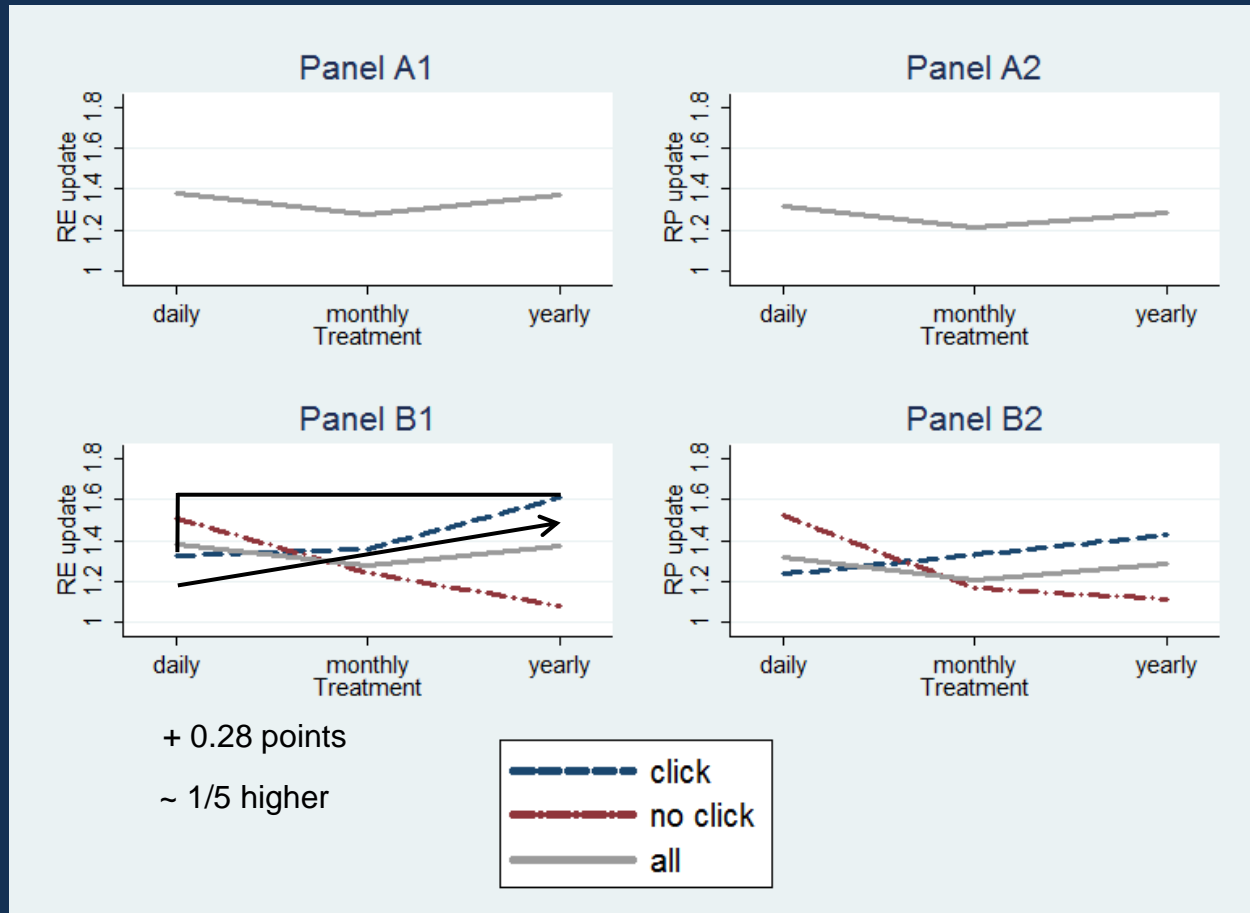
Belief updating and opting out



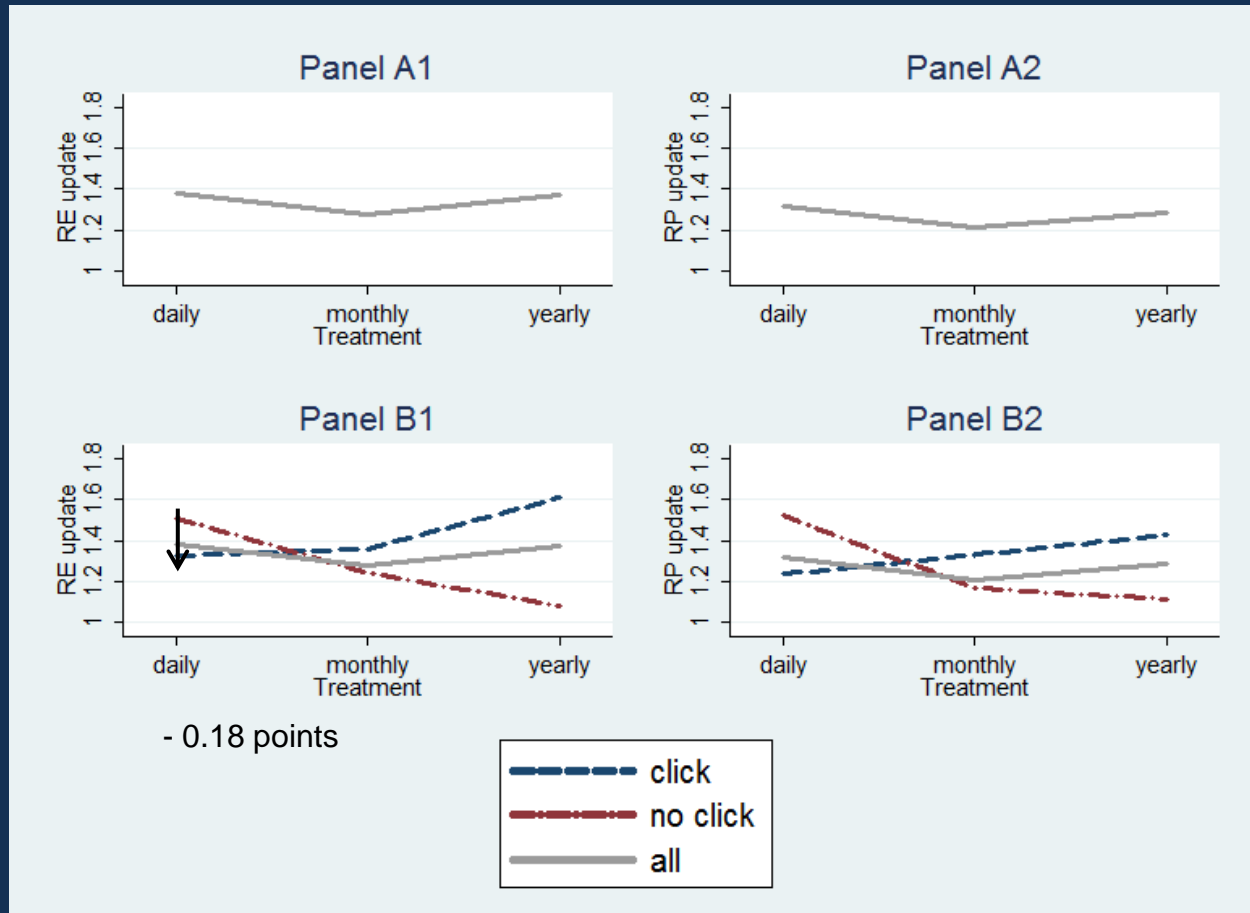
Belief updating and opting out



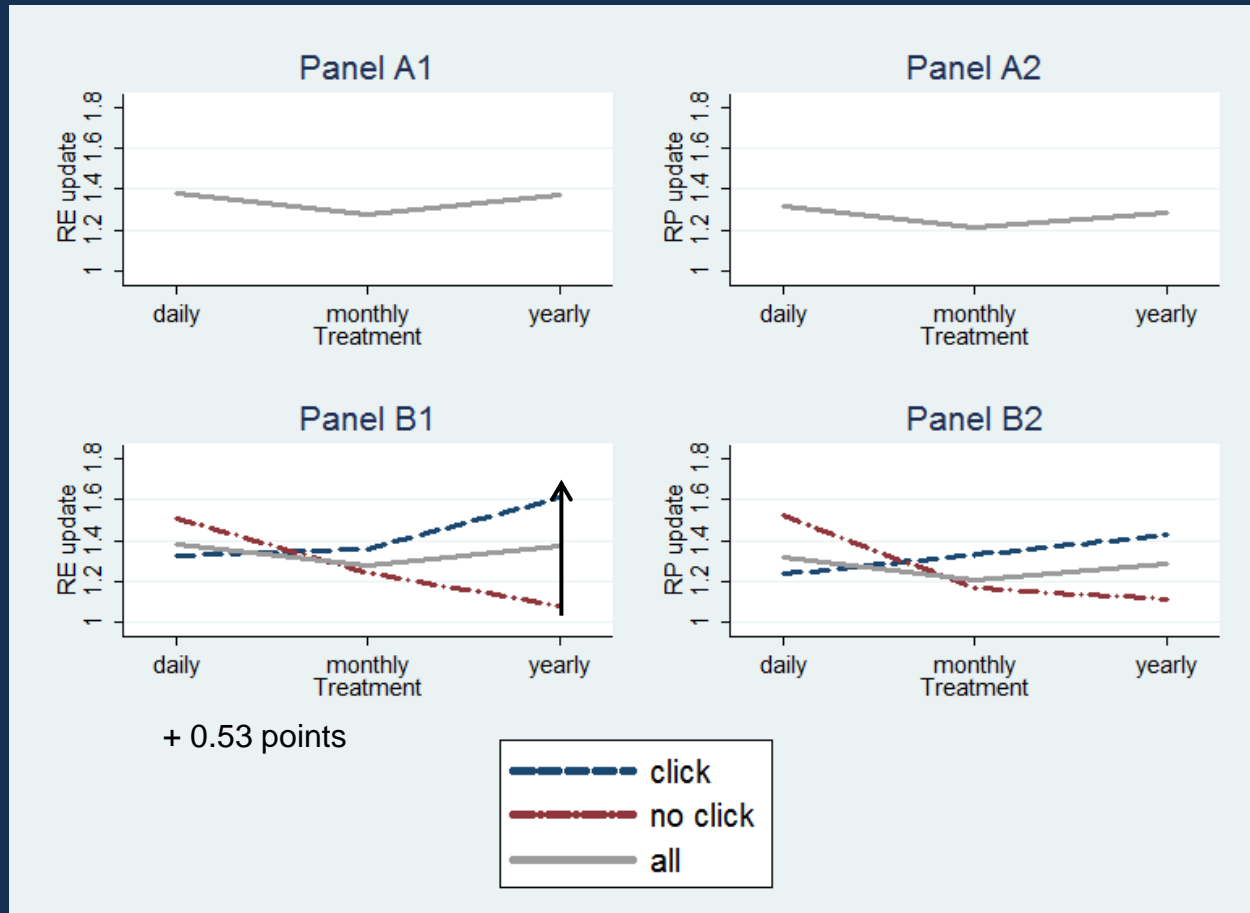
Belief updating and opting out



Belief updating and opting out



Belief updating and opting out



Who opts out?

	average click
Age	-0.01 (0.01)
Gender	-0.05 (0.04)
Risk aversion	-0.02* (0.01)
Financial literacy	0.03** (0.01)
Treatment: daily	0.44*** (0.04)
Treatment: yearly	0.28*** (0.04)
Constant	0.49*** (0.16)
Observations	339
adjusted R ²	0.24

Summary

- Default on average does not impact magnitude of belief updating
 - Split based on opting out:
 - Longer horizon reduces belief updating if staying in default
 - Shorter horizon reduces belief updating when opting out
 - Longer information horizon not beneficial if:
 - immediate access to alternative information horizons
 - Opting out is easy
- ➔ Default horizon to be tailored to investors

Table 3: Belief updating across treatments

	all	click	no click	difference	t-stat	p-value
Panel A1: mean absolute changes in return expectations						
daily	1.38	1.33	1.51	-0.18	-2.63	0.01***
monthly	1.27	1.36	1.24	0.12	1.88	0.06*
yearly	1.38	1.61	1.08	0.53	9.22	0.00***
Panel A2: average within subject standard deviation of return expectations						
daily	1.21	1.16	1.32	-0.16	-3.07	0.00***
monthly	1.18	1.26	1.15	0.11	2.22	0.03**
yearly	1.24	1.40	1.05	0.35	7.42	0.00***
Panel B1: mean absolute changes in risk perceptions						
daily	1.32	1.24	1.52	-0.29	-4.14	0.00***
monthly	1.21	1.33	1.17	0.16	2.60	0.01***
yearly	1.29	1.43	1.11	0.31	5.20	0.00***
Panel B2: average within subject standard deviation of risk perceptions						
daily	1.21	1.16	1.31	-0.15	-2.68	0.01***
monthly	1.12	1.23	1.08	0.14	2.86	0.00***
yearly	1.25	1.36	1.10	0.26	5.18	0.00***