

28th Colloquium of Pensions and Retirement Research  
7 December 2020

# **Portfolio choice for retirement savings: The impact of market volatility during the COVID-19 pandemic**

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# Introduction



- **Individuals face increasing burden of making investment decisions for their retirement savings**
  - The shift from defined benefit (DB) schemes to defined contribution schemes (DC)
  - Low level of financial literacy in the general population (Lusardi and Mitchell, 2014)
- **Default investment strategies are effective in addressing this issue (Dobrescu et al., 2018)**
- **Members can still opt out of the default, and are more likely to when the market is volatile**
  - Often results in a less diversified portfolio and on average underperform default strategies (See, for example, Choi et al., 2011 in the U.S. and Vanguard, 2019 in Australia)
- **This paper studies how DC plan members respond to market volatility by making active investment decisions during the COVID-19 pandemic period**
  - Provides **new empirical evidence** on the decision making of individual investors
  - Sheds light on the **key drivers** of the decision made by members during periods of market stress
  - Calls out the **need to help members** stay the course and provide insights on how
- **Aware Super welcomes collaboration opportunities on this project to produce an academic paper**

1. Introduction
2. The switching sample: Data, method and patterns of the switching behaviour
3. The matched survey sample: Growth asset exposure, risk attitude and switching behaviour
4. Concluding remarks

## **The switching sample: Data, method and patterns of the switching behaviour**

# The switching sample

- **Aware Super (formerly First State Super)**

- The second largest superannuation fund (DC plan provider) in Australia by assets under management, managing over A\$130 billion
- Over 1 million members with most members are carers, protectors, educators and helpers in the community (e.g., teachers, nurses, police and emergency service workers, government and community workers)

- **The switching sample**

- All members who changed their investments during the period from 3 February 2020 to 6 April 2020
- Members coming from **two** separate funds
  - 20,348 invest with a fund whose members are **largely self-directed** (have received no or only limited financial advice)<sup>1</sup>
  - The remaining 1,162 invest with a fund whose members are **typically advised** by a financial planner<sup>2</sup>
- Descriptive statistics on patterns of the switching behavior

## Summary Statistics

Sampling period	3 Feb 2020 to 6 April 2020
# of members switched	21,510
% membership	2.7%
Total # switches	27,283
# defensive switches	21,490 (79%)
# into Cash	12,598 (46%)
# growth switches	4,908 (18%)

1. This is the First State Super fund.  
2. This is the StatePlus fund where members typically invest through financial planning practice

# Switching activities ramped up in response to equity market falls

- Among those who switched, the proportion of defensive switches increased from ~40% to ~80%
  - This persisted through the period of volatility
- Recent admin data suggest that
  - The volume of switching activities & proportion of defensive switch has fallen back to pre-COVID level
  - To mid-August, two thirds of members who switched to cash remain invested in cash



Note: The analysis in this slide is for the largely self-directed fund (First State Super). Results for the advised fund (StatePlus) are broadly similar and are not shown here.

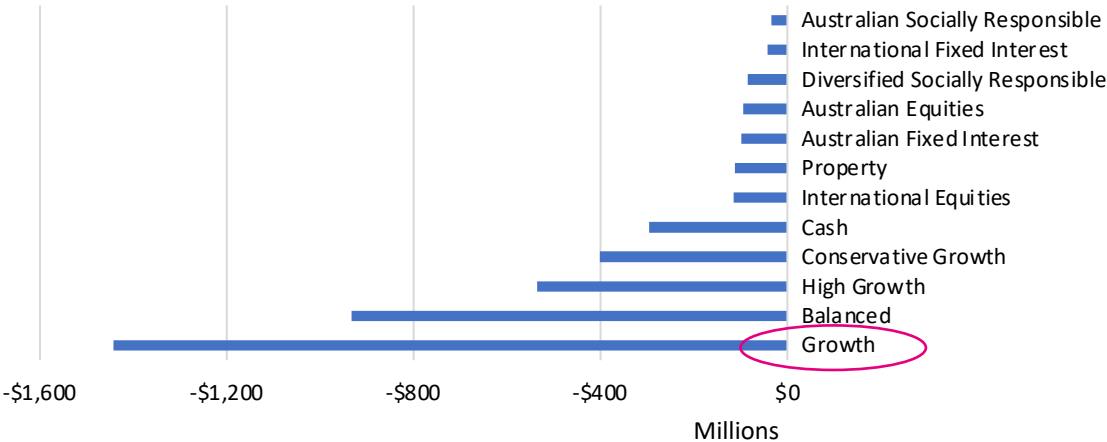
# The most common switch was from default to cash

It is important to look beyond the net switching figures



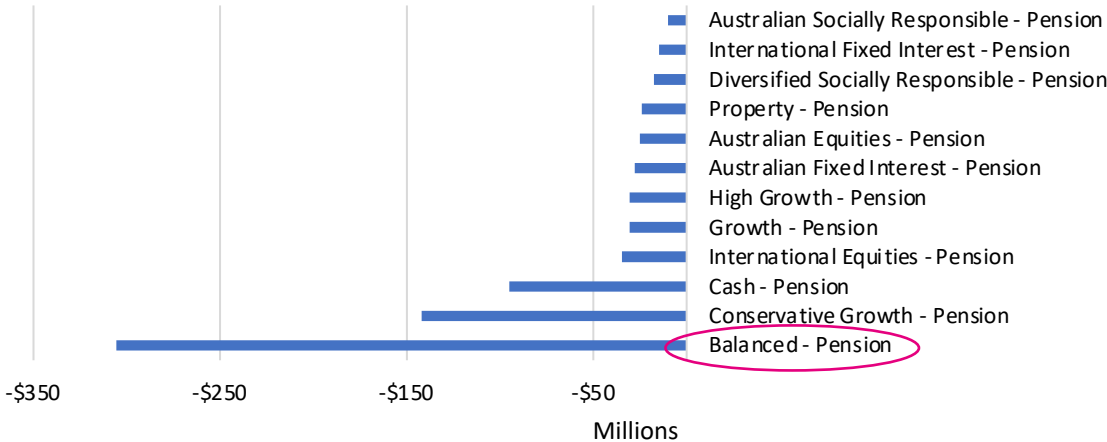
## Accumulation members

FUM switched out of each accumulation option

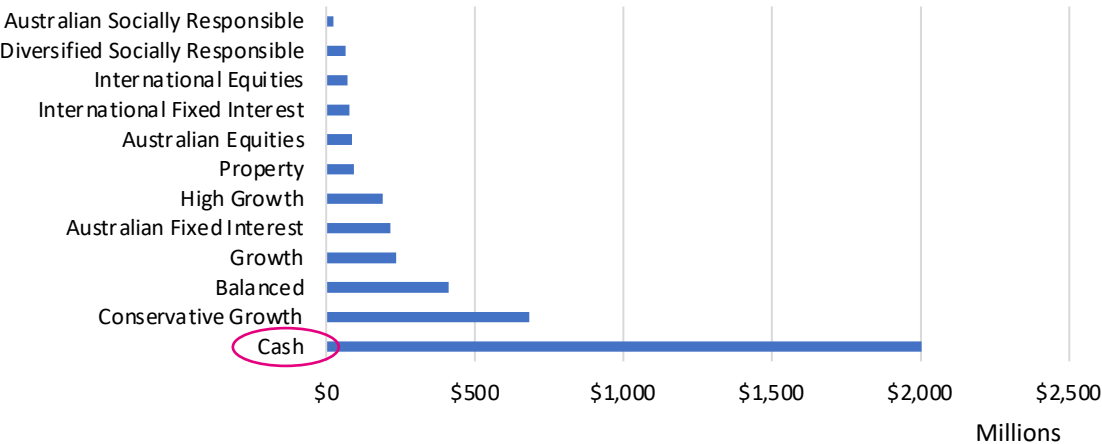


## Pension members

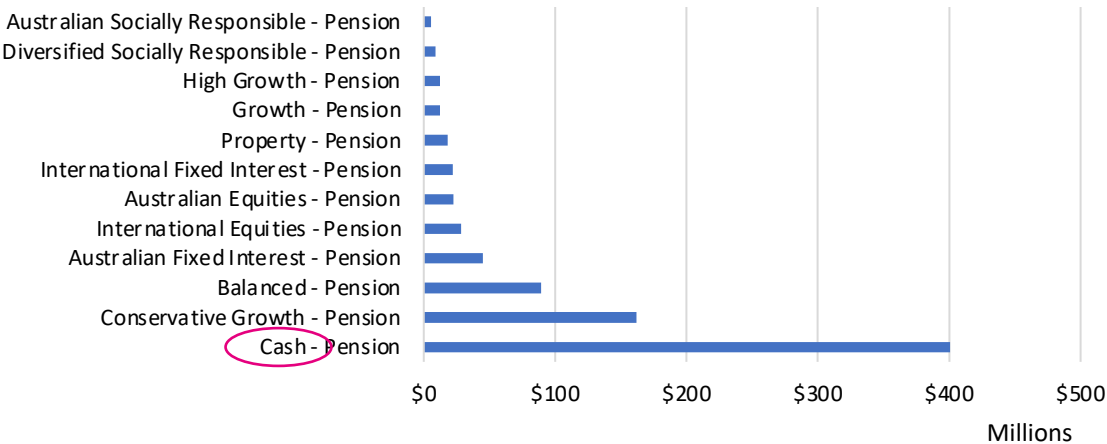
FUM switched out of each pension option



FUM switched into each accumulation option



FUM switched into each pension option



Note: The analysis in this slide is for the largely self-directed fund (First State Super). Results for the advised fund (StatePlus) are broadly similar and are not shown here.

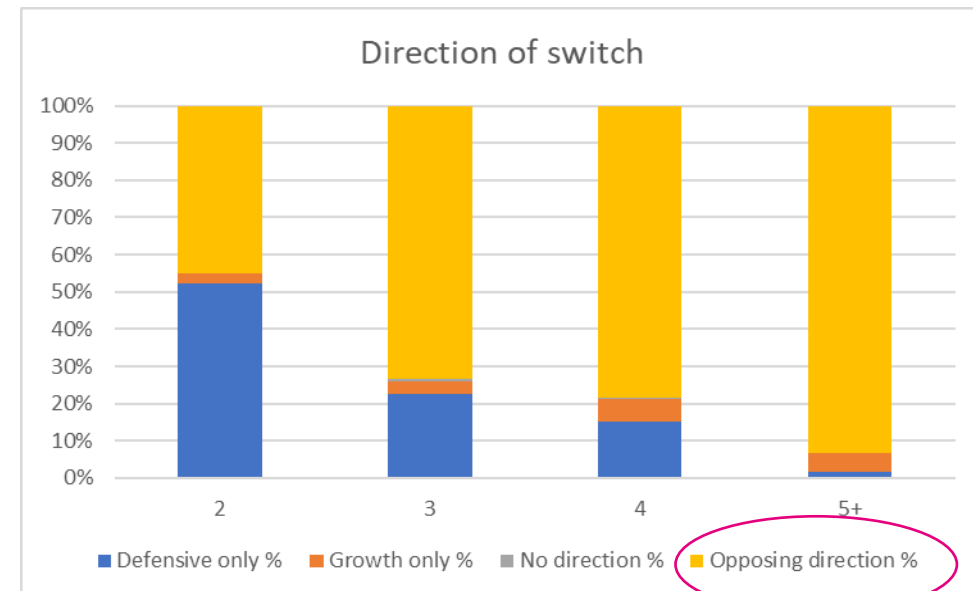
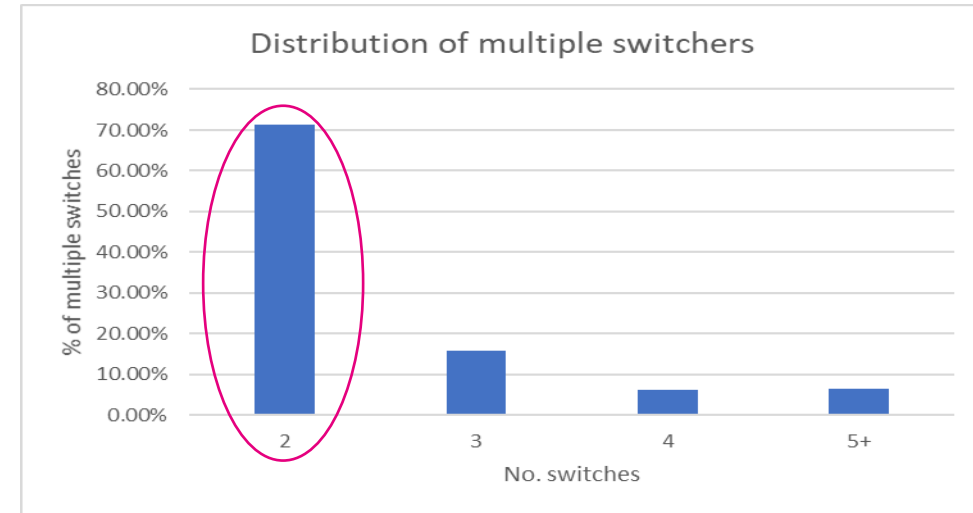
# 17% of switchers made more than one switch

Most of these members switched in the opposite direction and realised a loss

- Multi-switchers were members who made more than one switch in the sample period, accounting for 24.2% of FUM switched
- They have higher average balance than the single switcher and are more likely to be choice members
- 71% of multi-switchers switched twice
- The majority of multi-switchers switched in the opposite direction
- 62% of opposite direction switches realised a loss

	No. of switches	FUM	No. of members
Total switch	25,932	\$4.9b	20,348
Multiple switch	9,002	~\$950m	3,418
Percent	35%	24.2%	16.8%

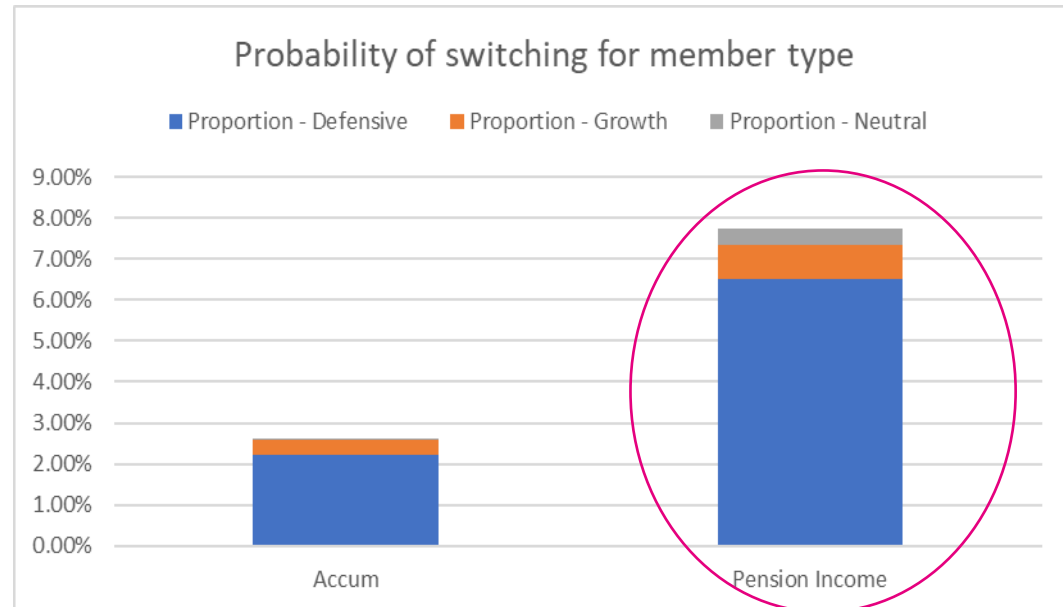
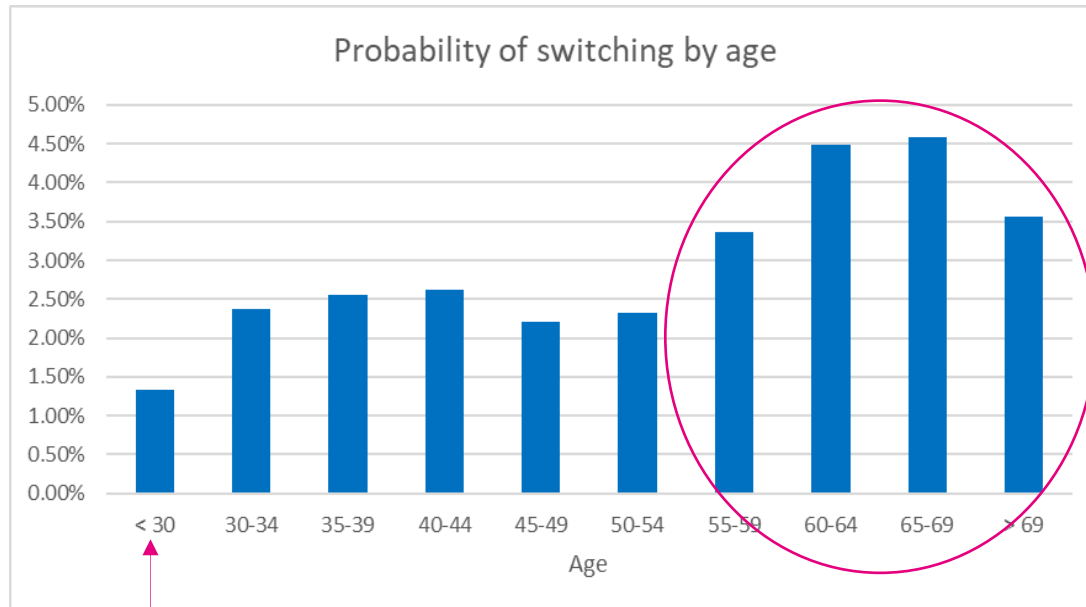
Member balances (FSS Accum & Pension)	Average balance at Jan 2020
Single switchers	\$208.1k
Multi-switchers	\$288.0k





# Older and pension members are more likely to switch

- Older members were ~2x more likely to switch, and switch more defensively
- Pension members were ~3.1x more likely to switch than accumulation members

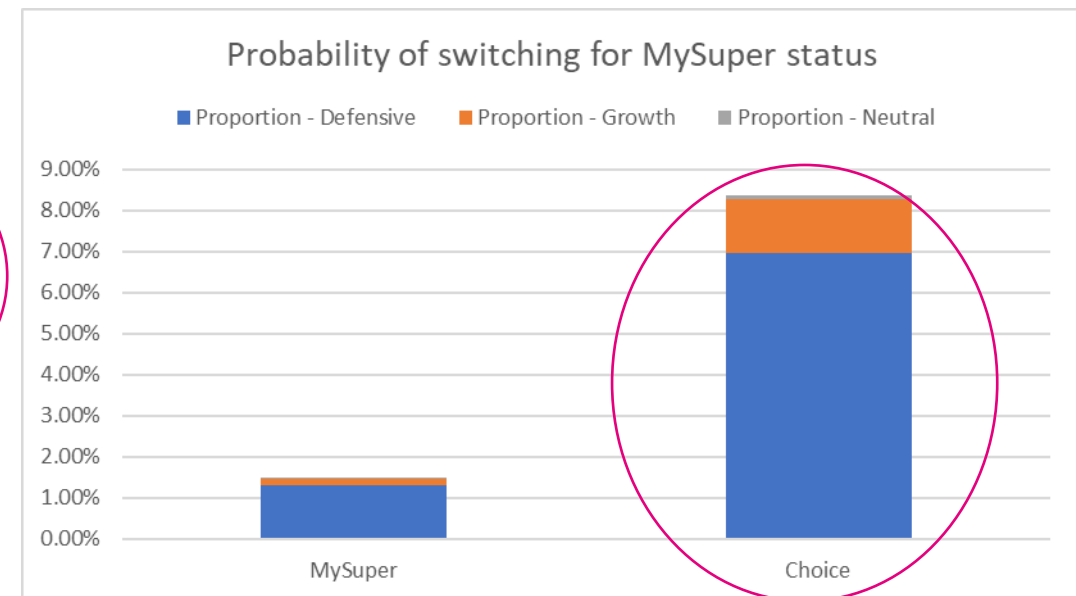
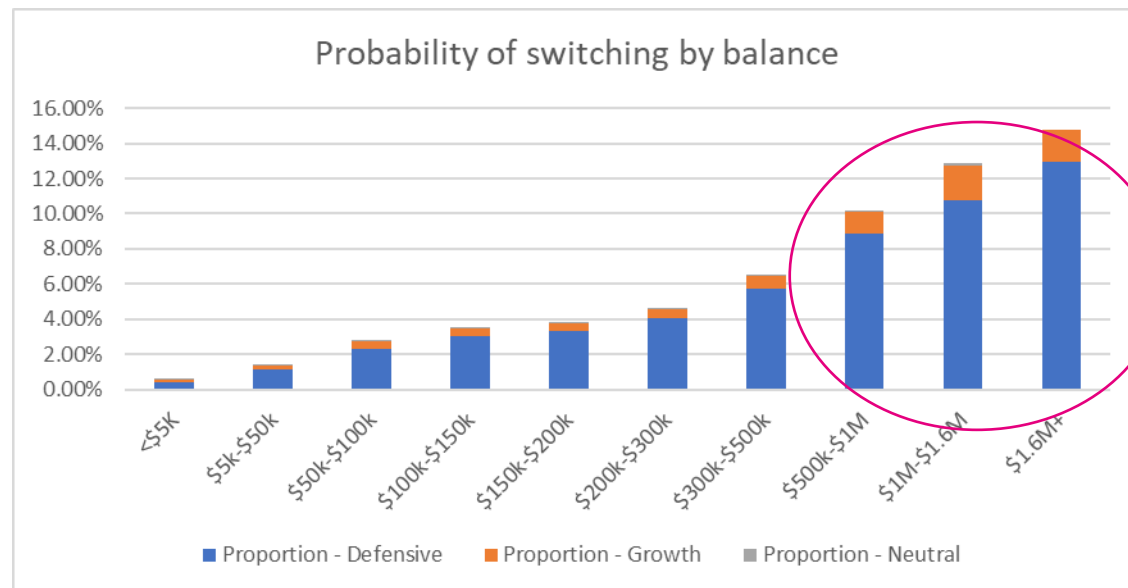


Under 30's had the highest likelihood of switching to growth, though still low in aggregate at 30%

# High balance and choice members are more likely to switch

While the headline number suggests that this is a minor issue, it is a big issue for the cohorts at most risk

- Interaction: 13% of those who are not MySuper accumulation member and with balance > \$500K switched
- Likely to be **a growing issue** as the system continues to mature. We expect the average member balance will increase over time and members become more engaged



# Guidance and advice can play a crucial role in reassuring members



- Comparison of the two funds for members age 55 and over
- Among the largely **unadvised** retirees
  - **7.7%** switched investment options
  - moving **84%** of account balance on average
  - Lead to **11.2%** of FUM switched
- Among the largely **advised** retirees
  - **1.8%** switched investment options
  - moving **33%** of account balance on average
  - Lead to **0.9%** of FUM switched

Summary Statistics	Self-directed fund age 55 and over (First State Super)	Advised fund age 55 and over (StatePlus)
# of members switched	2,190	1,140
% membership	7.7%	1.8%
Total # switches	3,095	1,321
# defensive switches	2,308	1,071
# into cash	1,326	707
# growth switches	560	126
Average % of balance switched	84%	33%
% of FUM switched	11.2%	0.9%

## **The matched survey sample: Growth asset exposure, risk attitude and switching behaviour**

# The matched survey sample

## The survey sample

- Surveyed over 1,800 members in February 2020 before the start of the COVID-19 market fall
- Elicited the **risk attitudes** (0 to 10 scale based on Dohmen et al., 2011) in the superannuation investment context
- Collected **a richer set of information** which is not recorded in the administration system, such as homeownership

## Matched this survey sample to the investment option switching sample

- Estimate linear probability models to explore drivers of investment decisions made by members during the market fall

Summary Statistics	Number of members
Sample size	1,868
# of members switched	140
Defensive switch	112
Growth switch	24
Neutral switch	4
Non-switcher	1,728

# Conditional on making a switch, members who are more risk averse are more likely to make a defensive switch



<i>Dependent variable = Defensive switch</i>	<i>With risk attitude</i>
Intercept	0.1538 (0.87)
Male	0.0578 (0.75)
Age 55 and over	0.0483 (0.4)
Member type (relative to base = Accumulation Default MySuper)	
<b>Accumulation choice</b>	0.3185** (2.55)
<b>Pension</b>	0.3292** (2.31)
Partnership	0.0621 (0.71)
Home ownership	0.0789 (0.66)
Retire with debt	-0.1045 (-1.11)
Balance (in \$100,000)	0.0113 (1.01)
Growth asset exposure in Jan 2020	
Bottom one third	-0.1698* (-1.65)
Top one third	-0.0107 (-0.12)
<b>Risk attitudes</b>	0.0485** (2.33)

# Growth asset exposure and risk attitudes do not predict the decision to switch during the period

- Isolate the marginal impact of each factor: high balance, non-homeowner, pension members and accumulation members who actively chose their investment options previously are more likely to make a switch

<i>Dependent variable = switched during Feb to April 2020</i>	<i>No risk attitude</i>	<i>With risk attitude</i>
Intercept	0.0045 (0.12)	0.0335 (0.7)
Male	0.0129 (0.94)	0.0099 (0.71)
Age 55 and over	0.0280 (1.41)	0.0260 (1.3)
Member type (relative to base = Accumulation Default MySuper)		
<b>Accumulation choice</b>	0.1121*** (5.8)	0.1064*** (5.38)
<b>Pension</b>	0.0373* (1.87)	0.0368* (1.82)
Partnership	0.0022 (0.12)	0.0115 (0.75)
<b>Home ownership</b>	-0.047** (-2.27)	-0.0485** (-2.32)
Expect to retire with debt	0.0220 (1.19)	0.0247 (1.31)
<b>Balance (per \$100,000)</b>	0.0052** (2.38)	0.0044** (1.99)
<b>Growth asset exposure in Jan 2020</b>	0.0311 (0.77)	0.0159 (0.36)
<b>Risk attitudes</b>		-0.0031 (-0.83)

## Concluding remarks



# Conclusions & implications

## Key findings

1. Switching behaviour ramped up in response to equity market falls: around 77% of these switches were defensive and around half of the switches were to cash
2. Members who are nearing or in retirement, with higher balance and made active investment choice previously are more likely to switch.
3. Members with guidance and financial advice are less likely to switch and they switch less of their balance even if they do
4. Growth asset exposure & risk attitudes do not predict the switching decision itself (the 'myopic loss aversion' by Bernartzi and Thaler, 1999)

## Implications

1. DC plans should be prepared to see this again in future market crisis and take measures to help members stay invested
2. Could be a growing issue as the system continues to mature: the average member is likely to have a higher balance and become more engaged
3. Guidance and advice can play an important role in reassuring members and helping them stay the course when markets fall
4. The decision to switch is likely influenced by market headlines (rather than by the volatility of member's own balance) and possibly impulsive behavioural obstacles such as fear

# References



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