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The risk of cognitive decline: Investors' perception and preparation

Vanguard Research

August 2021

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- Cognitive decline is characterized by cognitive impairment with or without dementia. Estimates in the academic literature show that two out of three adults will experience cognitive decline, with about one in three suffering from its severe form, dementia. Our findings show that investors' estimates of their own cognitive decline risk are more in line with the risk for dementia than with the broader risk of cognitive decline.
- In our study, we assessed how investors would manage the possible onset of cognitive decline: who they would choose as agent to act on their behalf, any preparations they had made to mitigate this risk, and how they would handle the eventual transfer of financial control. We found that a family member, especially a child, was the main choice of agent in case of incapacity. In the absence of a child, other family members (such as siblings, nieces, or nephews) were often chosen, as were friends and institutions.
- Investors generally have some plans in place to address cognitive decline, such as having a power of attorney and a living will. But planning for more task-specific duties, such as identifying a person who will check mail or pay bills, prearranging care, and providing guidelines for the transfer of control of finances, is less common.
- In the event of cognitive decline, timing the transfer of control of finances correctly is key and can have significant implications for investor well-being. Our study measured the welfare cost of a mistimed transfer, which captures the value of being able to control when to hand over finances to an agent in case of cognitive decline. On average, we estimate that this cost is equivalent to 14% of net worth.

Acknowledgments: Thank you to Annette Bonner, Sophia Bunyaraksh, and Fu Tan for their support of the survey; to Kevin Wick, Andrew Yorgey, and Jacklin Youssef for planning consultation; and to the Vanguard Research Initiative (VRI) team of John Ameriks, Andrew Caplin, Minjoon Lee, Matthew Shapiro, and Christopher Tonetti for the joint academic research this paper is based on.

Introduction

The increasing proportion of older people in the global population[1] highlights the need for everyone to prepare for old age. While investors may already be doing this to some extent, they need to pay more attention to the risk of cognitive decline. Heterogeneity in late-in-life cognitive ability is well-documented. Some individuals experience a gradual deterioration due to normal aging, while others may go through mild to severe impairment, including dementia (Plassman et al., 2011, and Langa et al., 2017). The lifetime risk of dementia is about 31% (37% for women, 24% for men); the risk of cognitive impairment (both with and without dementia) is even greater: Two out of three people can expect to experience it in their lifetime (Hale et al., 2020).

Managing finances late in life requires consideration of the risk of cognitive decline. Those with mild decline are usually not aware of their deteriorating financial skills, making them financially vulnerable (Okonkwo et al., 2008). For example, missed bill payments and subprime credit scores may be evident years prior to a dementia diagnosis (Nicholas et al., 2021). Transfer of control to a spouse when a financial decision-maker suffers from cognitive decline usually happens after financial difficulties have already appeared (Hsu and Willis, 2013). Investors will suffer wealth losses, particularly when they are not aware of their own decline; however, the presence of children or family can help mitigate this, which shows the importance of agency (Angrisani and Lee, 2019).

Preemptive planning for cognitive decline is important for several reasons. The amount of wealth at risk could be substantial, since wealth is disproportionately held by older individuals. At the same time, this life stage can be characterized by complex financial decisions (involving, for example, health care, investments, and making retirement income last) and multiple life transitions (such as moving from saving to spending, relocating, or losing a support network) that can be complicated by diminished capacity. Older people are also targets for financial fraud, particularly investors of a certain profile—wealthier, older males, active in the stock market—who may also be less likely to notice their own impairment and make bad financial decisions (Deliema, et al., 2020; Mazzonna and Peracchi, 2020).

Because of these individuals' advanced life stage, their investments have less time to recover from losses due to financial mistakes or fraud.

Since financial issues are early signs of cognitive impairment, the concept of "whealthcare" was coined to represent the interplay of health care and wealth and their impact on elder well-being (Karlawish and Blazer, 2015). Addressing cognitive decline requires coordination among various stakeholders (family, caregivers, and medical and financial professionals) to spot it and alert each other; expanding the focus of financial planning to include care issues; and using technology to enhance independent living, mitigate social isolation, and flag suspicious financial transactions and behavior (Lee et al., 2016).

Our study aimed to answer the following questions:

1. How do investors perceive the risk of cognitive decline?
2. Who are they likely to name as agents in the event of cognitive decline, and how do they perceive these agents' quality and availability?
3. How have investors planned to mitigate the possibility of cognitive decline?
4. In the event of cognitive decline, when is the ideal timing for transferring financial control to the agent? What are the consequences of a mistimed transfer of control?

The rest of the paper will describe our research sample and methodology, present the results, and end with a discussion of implications.

Sample and methodology

The data for this research came from a survey of Vanguard investors who were part of the Vanguard Research Initiative (VRI) research panel.[2] Panel members were age 55 or older, had a minimum of $10,000 in institutional or retail assets at Vanguard, and had accessed their Vanguard account online in the past six months. The main purpose of the survey was to understand participants' concerns about potential cognitive decline in late life and what they had done to address those concerns. The survey was conducted in July and August 2020.

1 By 2050, the number of people around the world who are age 65 or older is expected to be more than 1.5 billion, or 16% of the population (United Nations, 2020).

2 The VRI is a collaboration of the University of Michigan, New York University, and Vanguard, dedicated to research that seeks to understand the decision-making and well-being of older Americans. See Ameriks et al. (2014) for a more detailed description of the research panel.

For the purposes of the survey, cognitive decline was defined as having significant difficulties in any of the following: remembering familiar things and recent changes or events, learning new things, following a story in a book or on TV, making decisions on everyday matters, handling money for shopping, handling financial matters, handling other everyday arithmetic problems—for example, knowing how much food to buy or how long has passed between visits from family or friends, or understanding what is going on and reasoning things through. This definition is based on the Health and Retirement Survey (HRS) module on cognitive decline.[3]

A total of 2,489 people responded to the survey, for a response rate of 46%.[4] **Appendix Figure A-1** displays the sample's summary statistics. Respondents had a median age of 74, and two out of three were male. Their median net worth was $1.6 million.[5] The majority were married (or with a partner), had at least one living child, and were retired. They were in good health, with 67% rating their health as either excellent or very good. Six in ten had been exposed to cognitive decline, reporting that someone close to them had suffered from it.

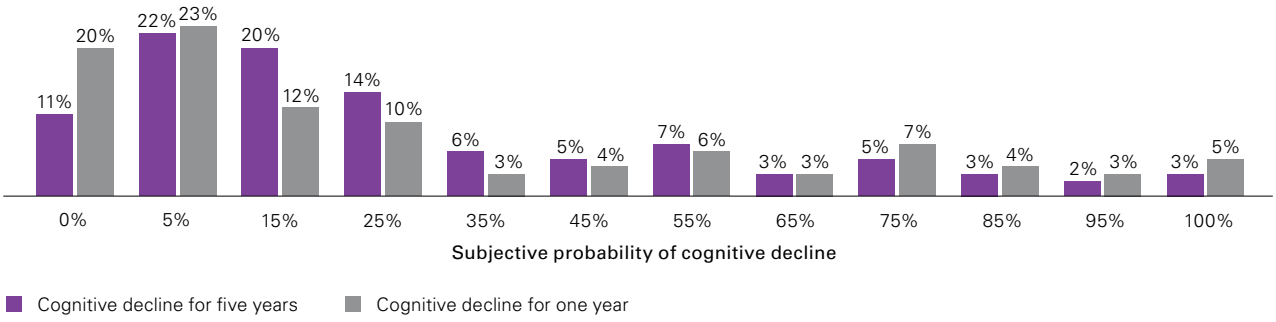
The risk of cognitive decline

"I have no relatives who have had cognitive decline in my immediate family. I don't think it is all that likely that I will."

"Yes, I lived through my parent's cognitive decline. Of course, it influenced my opinions."

Planning for cognitive decline requires both awareness and acknowledgment of the risk it poses for investors' well-being. As mentioned earlier, academic estimates of this risk are substantial. We asked investors what they thought was their chance of ever experiencing cognitive decline. **Figure 1** shows the results: They perceived a modest risk, with an average chance of 30% and 29% over one and five years, respectively. The median for both years was 15%. However, there was great heterogeneity in the responses, with estimates covering the full range of 0% to 100%. The similarity in the average estimates for a one-year and five-year decline may suggest that investors think of cognitive impairment as a longer-term condition once they suffer from it.[6]

Figure 1. The perception of personal cognitive decline risk is muted



Subjective probability of experiencing cognitive decline in the future	Mean	Median
One year	30%	15%
Five years	29%	15%

Q68 (Q69): Overall, what is the percent chance that you will ever experience cognitive decline that accompanies at least one of the issues described [see definition above] for at least one (five) years?

Source: Vanguard, 2021.

3 The HRS module asked about current symptoms, while the VRI survey asked about expectations of having these symptoms.

4 A small pilot survey (of 279 people) was conducted in December 2019 and January 2020. For some respondents, this was followed by interviews to gather feedback. The survey fielded in the summer of 2020 benefited tremendously from what we learned from the pilot.

5 Net worth included self-reported financial assets, the net value of the primary residence, and the net value of other real estate.

6 Given the similarity in the subjective estimates, we will focus on the five-year probability results in the rest of the paper.

The subjective risk of cognitive decline varied by investors' demographic characteristics, as shown in Figure 2. Those who were less healthy or who knew someone with cognitive decline assigned a higher chance of experiencing it themselves. We observed an increase of 10 percentage points in the mean and median perceived risk as respondents moved from excellent (or very good) health to fair (or poor) health. Similar results were observed when comparing investors who did not know anyone with cognitive decline with those exposed to someone who suffered from it.

Earlier, we described a continuum of cognitive decline, from mild impairment on one end to a diagnosis of dementia at the other. The average perceived risk of decline shown in the survey is roughly in line with its extreme form—the lifetime risk of dementia (estimated in Hale et al., 2020, at about 31%)—but misses the larger fraction of those at risk for milder forms. In other words, investors in our survey, particularly women, underestimated the risk of cognitive decline.[7] This is significant because financial repercussions can hit before symptoms become evident.

The agent

"I trust my son to be a good executor and I am not too worried if bad things come my way."

"I have no children, nieces, or nephews. I have no young friends. I do not know how to find a person who will do right by me when I need this kind of help. What stranger would care enough about my needs to give the personal attention to them that I would want?"

An important consideration for investors when planning for cognitive decline is identifying who will take care of their affairs and act on their behalf in the event of incapacity. Although the perceived risk of decline was modest among investors in our survey, we asked who

Figure 2. The perceived risk of cognitive decline varies most by health status and knowing someone who suffers from it

Subjective probability of cognitive decline for five years (percentage)

		Mean	Median
Total		**29**	**15**
Age	55–64	29	15
	65–74	29	15
	75–84	28	15
	85+	32	15
Gender	Male	29	15
	Female	27	15
Marital status	Single, never married	30	15
	Married, with partner	27	15
	Widowed/divorced/ separated	29	15
Health status	Excellent/very good	27	15
	Good	30	25
	Fair/poor	37	25
Exposure to cognitive decline	Know someone with CD	33	25
	Do not know someone with CD	22	15
Total net worth	Quartile 1	27	15
	Quartile 2	29	15
	Quartile 3	29	15
	Quartile 4	29	25

Source: Vanguard, 2021.

7 Hale et al. (2020), using panel data from the Health and Retirement Survey, estimated the lifetime risk of cognitive impairment (dementia) at 71% (37%) for females and 61% (24%) for males. In comparison, the VRI survey results showed the average perceived risk of cognitive decline to be 27% for females and 29% for males. Sample selection may explain some of the discrepancy, as we were less likely to reach those already experiencing severe cognitive decline.

would act as their agent if they did become cognitively impaired.[8] **Figure 3**, Panel A, shows the relationship of the agent to the investor. Seven in ten would name their child or child-in-law as their likely agent. Other family members, such as a sibling, were also chosen. Investors without (living) children were more likely to rely on a sibling. A significant group would also rely on others (friends and other family members such as nephews, nieces, and in-laws), as well as trustees and institutions. Of particular concern is the small percentage of investors who were at a loss about whom to name.

Figure 3, Panel B, summarizes investors' assessment of the quality of their chosen agent. At least eight in ten rated their agent as excellent or very good at understanding their needs, financial situation, and financial matters in general. Respondents were also confident that their agent would pursue their interests as the agent's own. Figure 3, Panel C, shows the expectation of agent availability. Investors in the survey were convinced that their agent would be free when needed to step in. On average, investors assigned a 76% chance that the agent would be available to make financial decisions on their behalf if they were unable to do so.

Except for a small minority, most could preemptively identify who they would tap to act as their agent and were confident that their likely agent would be willing and capable to perform that role. It is important for ongoing planning to constantly communicate any changes in investor preferences regarding both the agent and the execution of their affairs, as well as to confirm the continued availability of the agent.

Figure 3. Family members are likely to be named as agent in case of cognitive decline and are viewed favorably

Panel A. Relationship of agent

	Total	No living children
Child or child-in-law	70%	0%
Grandchild	1%	1%
Sibling	10%	38%
Trustee or institution	9%	23%
Other	9%	34%
None	2%	5%

Panel B. Quality of agent
(Percentage excellent or very good)

	Total
Understanding your needs and desires when you have cognitive decline	83%
Understanding your financial situation	82%
Understanding financial matters in general	81%
Pursuing your interests as their own	87%

Panel C. Agent availability
(Subjective probability)

	Mean	Median
Likely agent will make financial decisions on your behalf when you cannot	76%	85%
Likely agent will not be available to take over control at the ideal timing	23%	15%

Source: Vanguard, 2021.

8 Spouses or partners were excluded as possible agents. This was a simplifying assumption for later in the survey, because transferring control of finances to a spouse requires different considerations.

Planning for cognitive decline

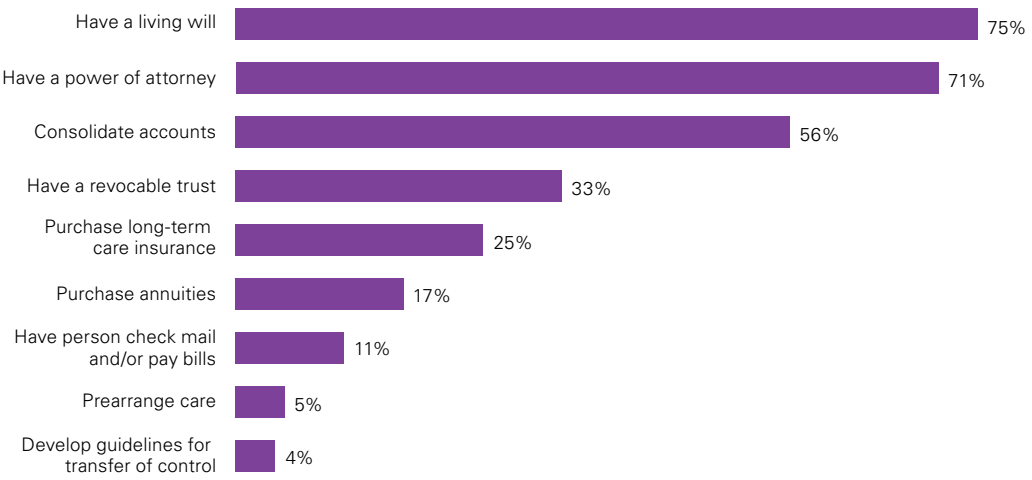
"I'm currently handling finances for three 90-year-old memory-care relatives. There is little help for folks like this, especially where there was no plan. I hope my wife and I can put a plan together so that my children won't have to go through what I have gone through in the last three years."

"While I think our planning is well in hand, the survey has brought up issues I may need to address."

The best way to mitigate risk is to prepare for it. Using a list adapted from Rappaport (2018), investors were asked how much they had planned for cognitive decline. Figure 4 shows the list of planning activities and the proportion of investors who had done each activity as of the time of the survey. Having a living will or power of attorney were the most commonly accomplished tasks, completed by at least seven in ten investors. However, only a minority had planned more specifically by, for example, naming a person to check mail or pay bills, prearranging care (anticipating the next steps in living arrangements or caregiving), or preparing guidelines for the transfer of financial control.

Figure 5 shows the incidence of planning by age. For most of the tasks, planning increases progressively with age. However, account consolidation increases but then plateaus at ages 65 to 74, and the purchase of annuities stays somewhat stable. Although they do not exceed 20%, the incidences of naming a person to check mail and pay bills, prearranging care, and developing guidelines for transfer of control tend to spike at age 85 or older, suggesting that planning for these care-related activities may be more reactionary than proactive.

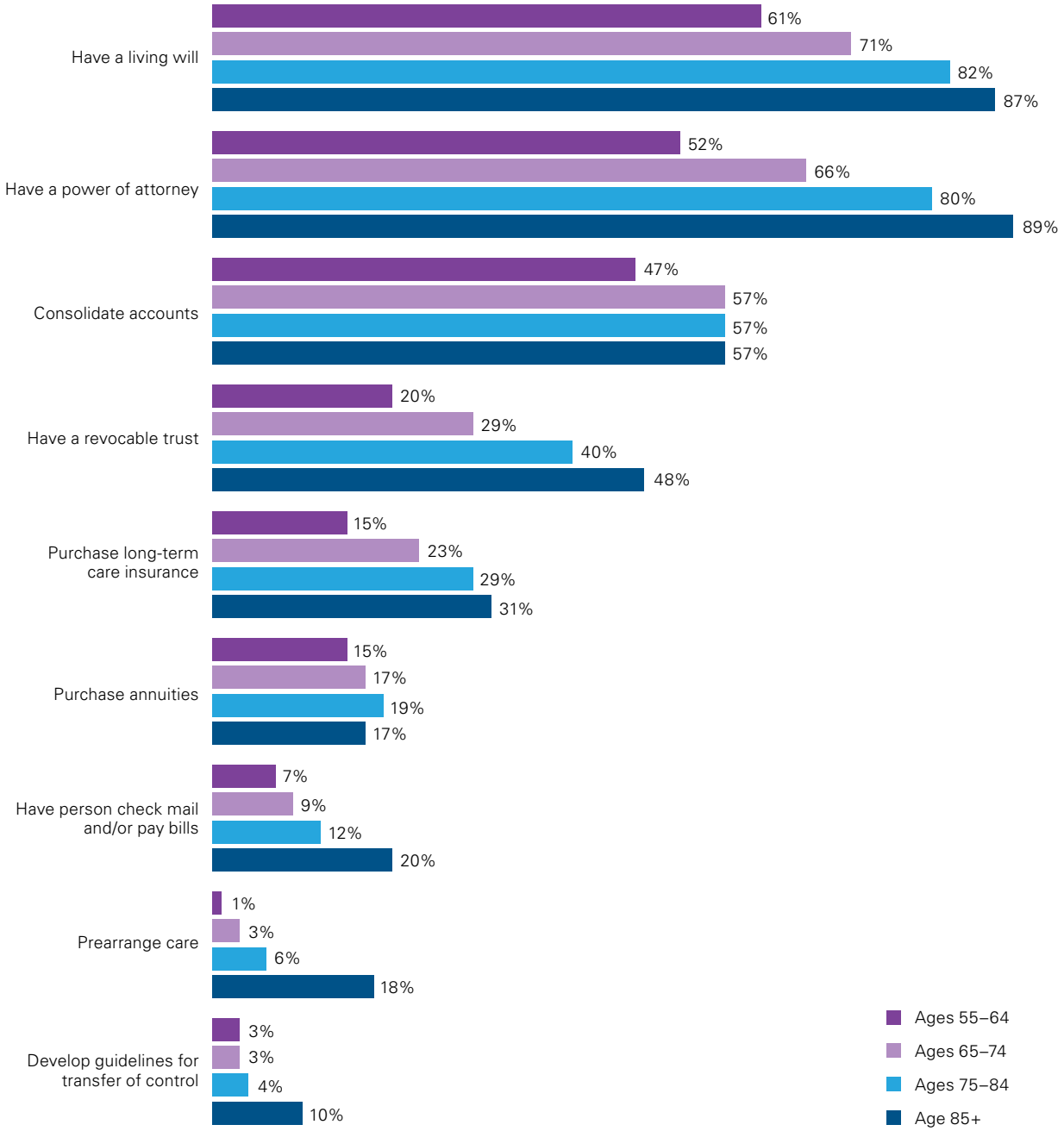
Figure 4. Planning incidence varies widely by activity



Q90: "Which of the following measures have you already undertaken? Select all that apply."

Source: Vanguard, 2021.

Figure 5. The incidence of most planning activities increases with age



Source: Vanguard, 2021.

Finally, we placed investors into groups based on the combination of planning activities they had completed. Figure 6 displays the seven groups we identified through cluster analysis, with the incidence of each planning activity noted in the corresponding cells.

In all groups but Consolidators (Group 3) and Weak Planners (Group 5), having a power of attorney and living will were practically universal. The third task was usually named by 100% of each group. For example, for the Care Planners (Group 1) that third activity was purchasing long-term care insurance; for the Trust Planners (Group 2), it was a revocable trust. The largest group, at 25% of the investors, was the Basic Planners (Group 7), who had a power of attorney, a living will, and some account consolidation. Planning was less evident among Consolidators, who, as their name implies, had only consolidated their accounts, and Weak Planners, who had done minimal amounts of planning. These results show that while more planning activities—particularly care-related ones—could be done overall, certain groups lack even the most basic preparation for cognitive decline.

Figure 6. Investors can be classified into seven types of planners

Table legend:

Higher Significantly *higher* than total Lower Significantly *lower* than total

	Care planners	Trust planners	Consolidators	Trusting consolidators	Weak planners	Active (annuity) planners	Basic planners	Total
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	
Proportion of sample	**13%**	**10%**	**11%**	**13%**	**17%**	**10%**	**25%**	**100%**
Have a living will	Higher 91%	Higher 95%	Lower 31%	Higher 96%	Lower 24%	Higher 93%	Higher 93%	**75%**
Have a power of attorney	Higher 96%	Higher 92%	Lower 1%	Higher 95%	Lower 9%	Higher 92%	Higher 100%	**71%**
Consolidate accounts	Higher 74%	Lower 0%	Higher 100%	Higher 100%	Lower 0%	Lower 39%	Higher 69%	**56%**
Have a revocable trust	34%	Higher 100%	Lower 2%	Higher 100%	Lower 2%	Higher 46%	Lower 0%	**33%**
Purchase long-term care insurance	Higher 100%	28%	Lower 10%	Lower 0%	Lower 10%	Higher 62%	Lower 0%	**25%**
Purchase annuities	Lower 0%	Lower 0%	16%	18%	Lower 9%	Higher 100%	Lower 9%	**17%**
Have a person check mail and/or pay bills	14%	10%	Lower 7%	14%	Lower 5%	11%	13%	**11%**
Prearrange care	Higher 10%	4%	Lower 1%	6%	Lower 0%	Higher 12%	Lower 3%	**5%**
Develop guidelines for transfer of control	4%	4%	Lower 1%	6%	Lower 1%	6%	5%	**4%**

Note: Each cell in the table represents the percentage of investors in the group who completed the planning activity. Statistical significance testing is relative to total incidence at the 5% level.

Source: Vanguard, 2021.

Transfer of control

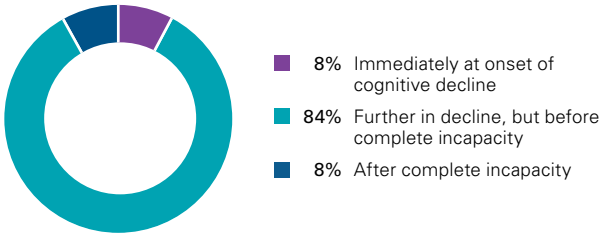
"Depending on the level of cognitive decline that I may experience, will I understand my level of impairment? Will I know if and when it is time to ask for help?"

"This really made me think about how our children will detect that cognitive decline is 'enough' to require them to take over our finances. We have all the documents in place. But little to help them decide when to act."

One of the biggest decisions for investors with cognitive decline is when to transfer control of their finances to an agent. Earlier, we showed that preparing for this transfer had the lowest incidence of planning among investors in the survey. We pursued this topic by asking when they thought was the ideal time to transfer this control. **Figure 7** displays the results. More than eight in ten thought the ideal timing would be after the onset of decline but prior to complete incapacity.

Figure 7. The ideal time to transfer control of finances because of cognitive decline is before complete incapacity

Conditional on having cognitive decline



Source: Vanguard, 2021.

However, transferring control does not always happen at the ideal time. **Figure 8**, Panel A, shows the expected chance of having a mistimed transfer. Investors estimated that, on average, there was a 35% chance that the transfer would happen later than their preferred timing. Their estimate of the chance of an earlier transfer was lower. Figure 8, Panel B, identifies possible reasons for a mistimed transfer. Investors saw themselves as likely more responsible for the mistimed transfer than their agents. On average, they assigned more than a 40% chance that they would not recognize their own decline or would refuse to give up control despite awareness.

Figure 8. Investors expect some risk of a mistimed transfer of control, which they attribute to their own decisions

Panel A. Expectation of mistimed transfer of control
(Subjective probability, conditional on cognitive decline)

	Mean	Median
Probability of delayed transfer	35%	25%
Probability of early transfer	24%	25%

Panel B. Possible reasons for mistimed transfer of control
(Subjective probability, conditional on cognitive decline)

	Mean	Median
Not recognizing your own cognitive decline	42%	45%
Not wanting to give up control in spite of decline	44%	45%
Agent will not notice your cognitive decline	33%	25%
Agent will preempt transfer of control	26%	25%

Source: Vanguard, 2021.

Investors are more concerned about a delayed transfer than an earlier one. To quantify this concern, we determined the welfare cost of a mistimed transfer—a measure of investor well-being that quantifies the value of being able to control when to hand over the management of finances to the agent. Note that this does not represent actual financial loss.

To measure the welfare cost, we presented the investors with a hypothetical late-in-life scenario in which they had cognitive decline.[9] Financial decisions such as routine spending, investing, and gifts or bequests would need to be made by either the investor or the agent, if financial control was transferred.

We asked them to choose between a scenario in which the transfer of control happened at their ideal time against a second scenario in which the transfer occurred later.[10] Appendix Figure A-2 shows how this was implemented. We measured the welfare cost of a delayed transfer by asking how much they would need to be compensated to make up for the delay. (A similar exercise was done for an earlier-than-ideal transfer.)[11]

Figure 9 shows the consequence of a mistimed transfer of financial control, revealing that the welfare cost can be sizable. On average, it can equal 14% of net worth (Panel A), or more than $300,000 (Panel B). However, there was great heterogeneity in investors' view of this cost. For example, the lowest quartile did not attach a welfare cost to the mistimed transfer of control even if it happened. This could reflect the mindset that a delay would not significantly affect decision-making or, in the case of an early transfer, confidence in their agent. On the other hand, the top quartile estimated the welfare cost to be greater than 30%. The significant welfare cost highlights the importance of having plans in place that define the triggers to transfer control of finances to the agent, as well as the process to detect the triggers and execute the transfer.

Figure 9. The welfare cost of a mistimed transfer of control could be substantial

Panel A. Welfare cost as percentage of wealth

	Welfare cost (percentage of wealth)			
	25th percentile	50th percentile	75th percentile	Mean
Delayed transfer of control	0%	19%	34%	**18%**
Early transfer of control	0%	13%	27%	**10%**
Wrong timing of transfer of control	0%	15%	30%	**14%**

Panel B. Welfare cost in dollars (1,000s)

	Welfare cost ($1,000s)			
	25th percentile	50th percentile	75th percentile	Mean
Delayed transfer of control	$0	$290	$646	**$432**
Early transfer of control	$0	$188	$520	**$245**
Wrong timing of transfer of control	$0	$210	$557	**$339**

Notes: Welfare cost (percentage) = ((amount needed to compensate for mistimed transfer of control) – (wealth))/wealth.
Wealth = retirement account assets + financial assets outside of retirement accounts + net value of primary residence + net value of other real estate.
Source: Vanguard, 2021.

9 Investors were asked to imagine the following hypothetical scenario: They are at the start of the last five years of their life. (If married or with a partner, they have outlived their spouse or partner.) They have mild cognitive decline in the first year. The progression during the rest of the five years is left uncertain. The amount of financial resources available at the start is structured from the actual net worth of the household as reported in the survey. Over the five years, decisions will need to be made about how the investor or agent will spend this money.

10 As shown in Figure 7, those whose optimal timing was after complete incapacity were not included in the delayed-transfer scenario. Similarly, those whose optimal timing was before the onset of cognitive decline were not included in the early-transfer scenario.

11 See Ameriks et al. (2021) for more details about the methodology.

Implications

Incorporating the risk of cognitive decline into wealth and health planning requires collaboration among various parties, including the agent and financial professionals.

Cognitive decline risk. Investors should improve their awareness of the risk of cognitive decline and its impact on wealth. While the perceived risk may be associated with dementia, it is important to expand awareness to include periods of mild cognitive impairment during which symptoms may not be noticeable but financial repercussions are real. This is particularly important for women, who underestimate the risk more than men.

Given the early manifestation of cognitive impairment in finances, financial professionals, especially those in regular contact with clients, may be among the first to notice any progression. This may require them to coordinate with other stakeholders for the client (for example, family and medical professionals) to provide more holistic support.

The agent. In the event of cognitive decline, most investors are confident that their agent will make good financial decisions on their behalf. However, ongoing communication is necessary to ensure that any updated preferences are known and agent availability is regularly confirmed. Another consideration is proximity—not all agents live nearby to help with day-to-day tasks and/or caregiving. Therefore, identifying a trustworthy local contact may be necessary to carry out directions from both the investor and the agent.

A sizable proportion of investors, particularly those without children, name someone from the same generation as their agent, potentially concentrating the risk of cognitive decline. It would be helpful to consider naming multigenerational agent(s) to ensure that this risk is spread out. Financial advisors can play multiple roles for clients preparing for cognitive decline by working with the agent and other family members, coordinating local resources—especially when the agent does not live near the client, or performing as the trusted agents themselves.

Planning and transfer of control. Preparing for cognitive decline requires holistic planning. It involves not only having all legal documents in place but also holding the appropriate conversations with family members, providers, and experts so that financial and health care needs and desires are expressed and captured in advance of incapacity. For example, investors should inform their likely agent of their intention to name them as agent, gain agreement to act as such, regularly communicate to make wishes known, document any changes to these wishes, and reconfirm agent commitment and availability.

For agents and financial advisors, introducing the topic of cognitive decline as a regular part of the planning process far in advance of its possible onset would give investors a sense of ownership and control over their plans. This would also render the conversation more routine rather than potentially sensitive and emotional. Particularly important is spelling out the guidelines for determining the right time to transfer control of finances to the agent. Although this is not often done, the repercussions to investor financial well-being are potentially significant.

Conclusion

Investors' perception of the risk of cognitive decline in our survey was roughly in line with the lifetime risk of dementia but underestimated the broader risk of mild cognitive impairment documented in the literature (Hale et al., 2020). In addition, respondents expected to rely overwhelmingly on a family member—usually a child—to be the agent acting on their behalf if needed. Most investors expressed confidence in the quality and availability of their chosen agent. While most had some planning in place to mitigate the effects of cognitive decline, they were less likely to have had proactive conversations about care and the transfer of control of finances. Timing the transfer is key, as mistiming can have significant implications for financial well-being.

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Appendix

Figure A-1. Respondent profile

Demographics

Age	55 to 64	13%
	65 to 74	42%
	75 to 84	38%
	85+	7%
	Median age	**74**
Gender	Male	68%
	Female	32%
Marital status	Married or with partner	65%
	Separated, divorced, or widowed	27%
	Single, never married	8%
Number of living children	None	21%
	One or two	49%
	Three or more	30%
Living situation	Living with spouse only	58%
	Living with spouse and/or others	12%
	Living alone	30%
Employment status	Completely retired	78%
	Not completely retired	22%
Health status, self *(% excellent/very good)*		67%
Know someone close (family/friend) with cognitive decline		60%

Finances

Median values	Total income	$100,000
	Estimated value of home (conditional on owning)*	$350,000
	Total financial assets in a tax-advantaged retirement account	$750,000
	Total financial assets outside a tax-advantaged retirement account	$300,000
	Total net worth	**$1,630,000**

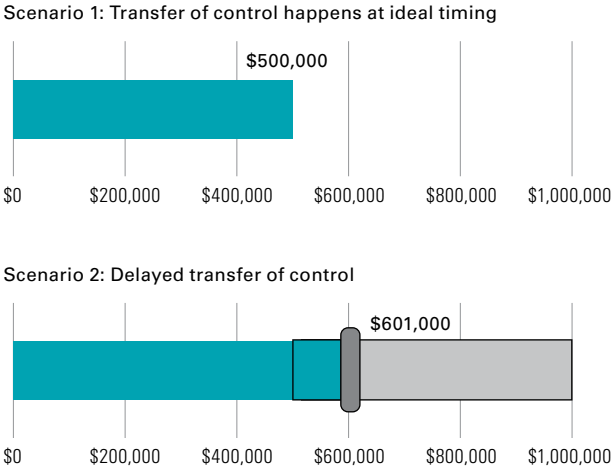
*Note: Ownership of primary home = 91%.

Source: Vanguard, 2021.

Figure A-2. Example of slider elicitation of transfer of control trade-off

The welfare cost of a mistimed transfer of control is measured as follows:

Survey respondents choose between Scenario 1 (transfer of control happens at ideal timing) and Scenario 2 (transfer of control is delayed relative to ideal timing). If they choose Scenario 1, they then indicate with the slider how much they would need to be compensated for accepting the delay.



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