



## Introduction

Many Americans bear responsibility for managing their own retirement savings by choosing from menus of investment options provided through their employer's retirement plan. This book is about how the law can help them make better allocation decisions while preserving their freedom to choose among reasonable investment options.<sup>1</sup>

While employers have a fiduciary responsibility to include only prudent options in their plan menu, they enjoy a safe harbor from liability for inappropriate participant choices over those menus. A wave of recent lawsuits has challenged plans for including options with imprudently high fees, but neither courts nor scholars have grappled in depth with the nature of employer's fiduciary duty in menu construction. This book fills this gap by arguing that prudent menu design shouldn't stop at eliminating high-fee options from the plan menu. Using real plan data, we show that employers can identify options that are highly likely to have been misused by investors. When reviewing their menu design, fiduciaries should learn more and do more. Prudent fiduciaries should (i) assess on an ongoing basis the likelihood and extent to which participants are misusing their plan's menu and (ii) where appropriate, take corrective action to reduce the likelihood of menu misuse. We show in this book how fiduciaries can take action to become better informed in ways that they heretofore have never been. We also show how they can take new actions to remedy menu misuse. Specifically, we argue that the streamlining approach to menu design, where fiduciaries eliminate some underperforming or problematic funds

<sup>1</sup> We are not the first to tread these paths. See, e.g., Richard H. Thaler and Shlomo Benartzi, *Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving*, 112 J. POLITICAL ECON. 164, 187 (2004); RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* (2008); James Kwak, *Improving Retirement Savings Options for Employees*, 15 U. FA. J. BUS. L. 483, 483 (2013). At the outset, we should disclose that we have served as amici in ERISA cases and one of us has served as a compensated, expert witness in several cases for plaintiffs alleging fiduciary imprudence in the management of retirement plans.

from the plan menu, is not always the best remedy to the problem of menu misuse. Instead, drawing on plan data, this book shows that allocation errors can often be better mitigated by adopting “guardrails” that constrain but maintain choice.

The Employee Retirement Income Security Act of 1974 (ERISA) requires that participant-directed retirement plans, such as 401(k) plans, give participants (i.e., employees participating in their job’s retirement plan) the ability to diversify their portfolios over a menu of options. If plan fiduciaries provide a prudently designed menu, they are protected from liability for participant choice by a safe harbor under ERISA § 404(c). As an empirical matter, many fund menus succeed at giving plan participants substantial diversification opportunities,<sup>2</sup> but many of these same menus create opportunities for participants to make grievous allocation mistakes. How should the fiduciary duty of prudence in menu design be reconciled with predictable, observable participant mistakes over that menu? We argue that plan fiduciaries should do more than simply provide a menu and hope for the best. Prudent menu design requires an understanding of how investors use and misuse choices. Regulations under ERISA, and courts interpreting 404(c), should be attuned to the realities of menu misuse. Increased vigilance could improve retirement outcomes for millions of investors.

There are three core allocation errors that plague retirement plan investments: fee errors, diversification errors, and exposure errors.<sup>3</sup> Fee errors occur when fund level or plan expenses are excessive. Supra-competitive fees reduce portfolio returns and can substantially shrink participants’ ultimate accumulation. Diversification errors occur when the portfolios of participants/employees fail to be sufficiently invested in diverse asset classes to eliminate idiosyncratic risk. Because capital markets don’t compensate investors for idiosyncratic risk, undiversified portfolios needlessly erode portfolio performance by reducing risk-adjusted return. And finally, exposure errors occur when participant portfolios are exposed to too little or too much market (or systemic) risk. While there are different views on how much exposure is appropriate for particular types of investors, there is a general consensus that it is mistaken for young workers

<sup>2</sup> Ian Ayres and Quinn Curtis, *Beyond Diversification: The Pervasive Problem of Excessive Fees and Dominated Funds in 401(k) Plans*, 124 *YALE L.J.* 1346 (2015).

<sup>3</sup> The possibility of these three allocation mistakes is also discussed in Ian Ayres & Edward Fox, *Alpha Duties: The Search for Excess Returns and Appropriate Fiduciary Responsibilities*, 97 *TEXAS L. REV.* 445 (2019).

to invest all of their retirement savings in money markets, and for older workers to invest all of their retirement savings in stocks.

When thinking about allocation errors, it is important to distinguish the allocation errors that are hard-wired into the plan versus those that are affirmatively chosen by individual participants. In the first category, fee errors are particularly prominent. Chapter 2's analysis of 2009 data shows that the average plan forced participants to pay 48 basis points (0.48%) annually in excess plan and fund expenses and that the 5 percent most expensive plans forced participants to bear a whopping 1.12 percent in excess fees. Participants cannot avoid excess fees if the cheapest fund in the plan's menu has an annual expense ratio of say, 1.5 percent. A central claim of the book is that fiduciaries may also bear responsibility for some of the allocation errors that participants have some ability to avoid, but can be attributed to imprudent menu design. Fiduciaries, by designing the plan elements, choosing whether there is a default, and what the default fund is can powerfully influence the prevalence of fee, diversification, and exposure errors. Indeed, the increasing prevalence of target date fund as plan defaults (what ERISA calls qualified default investment alternatives, or QDIAs) has led to dramatic reductions in diversification and exposure errors for new participants who disproportionately stick with the default. However, the advent of target date QDIAs also shows how the fiduciary decisions about their plan's "choice architecture" can also induce allocation errors – as made evident by the prevalence of plans with target date defaults charging excessive fees (exceeding 70 basis points).

Substantial progress has been made in the struggle to improve participant allocations. The unavoidable fees and expenses have fallen over the past twenty years. As previously mentioned, plans have also gone beyond just giving participants *the option* to diversify by choosing wisely to offering well-diversified and well-exposed investments by default. This is all for the good. But much remains to be done:

- Many plans still include what we call "dominated" funds. These are funds with high fees that are dominated by a similar, lower-fee fund included in the plan's menu;
- Many plans still include brokerage windows with excess fees and transaction costs, and allow participants to sacrifice diversification by investing all of their retirement savings in meme stocks and even crypto-currency funds (a favorite among millennials!);
- Many plans include sector and region funds, and some even offer company stock options that allow investors to sacrifice diversification by investing all of their retirement investments in narrow asset classes;

- Many plans allow participants, including participants in their twenties, to invest all of their retirement savings in money market accounts paying zero interest – the ERISA equivalent of putting savings under one’s mattress.

ERISA allocations have now evolved to a point where avoidable errors are more important than unavoidable errors. The bad old days of plans with across-the-board high fees and missing asset-class investment options are not completely gone. But the most grievous allocation errors today are ones that participants could avoid by making different menu choices.

These errors are not beyond the influence of fiduciaries. On the contrary, many of these errors are a direct and intended byproduct of design decisions of the plan advisor industry. Almost all fiduciaries hire plan advisors to design and administer the ERISA plan. Advisors are hurt when fee mistakes are reduced because it is the advisor who reaps the benefits of excessive fees. Indeed, we’ve estimated that reducing excessive fees by just 10 basis points would save participants more than \$6.9 billion annually, and most of these savings would come out of advisors’ pockets. So advisors naturally resist efforts to reduce fees. One might think advisors would not be as resistant to changing the design of plans in ways that would predictably reduce diversification and exposure mistakes. The proliferation of high-cost target date defaults in fact shows that advisors can help reduce these mistakes while still making supra-competitive fees. However, we show that advisors often have a strong economic interest in adding high-fee, undiversified options to plans that are especially attractive to participants who misguidedly believe they can beat the market by concentrating their savings in a narrow set of securities.<sup>4</sup>

In this book, we present a case study of how participants in the University of Virginia retirement plan allocated their 403(b) savings.<sup>5</sup> As of January

<sup>4</sup> Our view on this issue has evolved. We previously concluded that “the advisor community was able to cooperate with the diversification project without sacrificing revenues,” Ayres & Curtis, *supra* note 2, at 1533. Now we see that eliminating or limiting participant holdings in poorly diversified investment can at times cause advisors to sacrifice revenue.

<sup>5</sup> A 403(b) account is similar to a 401(k), but at a non-profit institution. As a state university, the University of Virginia is not subject to ERISA, but its plan operates like a typical ERISA plan in most respects, and it provides an ideal environment in which to observe the impact of different design choices. In addition, UVA undertook a major improvement of the plan menu during the period covered by our dataset, removing the gold fund and improving the menu in other ways. We use these changes to investigate the impact of menu enhancements on investor welfare.

2018, this plan had 11,765 participants consisting of both current and past employees of the university with more than \$673 million invested. We do not use this plan because it is an egregious example of subpar fiduciary behavior. On the contrary. It is generally a well-run plan and we are happy (past and current employees) to both be participants in it. We analyze this particular plan because it provides powerful evidence of how even well-educated employees in a university setting may still fall prey to substantial allocation errors. A minor claim of this book might be called the “cowboy” hypothesis. A subset of participants who are disproportionately male and higher earners are disproportionately likely – because of unjustified overconfidence – to make substantial diversification, fee, and exposure errors in their benighted efforts to beat the market. In designing their plans, fiduciaries shouldn’t just worry about their poorer and less educated participants, but also about their overconfident cowboys.

For example, let’s consider how participants use the Virginia plan’s gold fund. Gold coins as an investment are hawked on late-night TV commercials and seem to be particularly attractive to doomsday preppers who are “stocking up on canned beans and ammo as [they] wait for the apocalypse.”<sup>6</sup> In a *New York Times* column, Greg Mankiw asked: “Should gold be a part of [a retirement] portfolio?”<sup>7</sup> He viscerally recoiled at the idea of joining the ranks of “goldbugs” by investing in the precious metal.<sup>8</sup> But when he looked into this asset class, he found there is a reasonable case for a limited investment. Gold historically has been a risky investment – with “the volatility of gold’s return, as measured by standard deviation ... about 50 percent greater than the volatility of stocks.”<sup>9</sup> However, gold’s return is “largely uncorrelated with stocks and bonds” which means that adding a little to a portfolio can help diversify risk. In the end, Mankiw concluded that holding “a small sliver, such as the 2 percent weight in the world market portfolio, now makes sense to me as part of a long-term investment strategy.”<sup>10</sup>

So how were UVA participants using the gold option? The good news is that of the handful of participants holding the gold fund, many held

<sup>6</sup> N. Gregory Mankiw, *Budging (Just a Little) on Investing in Gold*, THE NEW YORK TIMES (July 27, 2013), [www.nytimes.com/2013/07/28/business/budging-just-a-little-on-investing-in-gold.html](http://www.nytimes.com/2013/07/28/business/budging-just-a-little-on-investing-in-gold.html).

<sup>7</sup> *Id.*

<sup>8</sup> This sobriquet refers to people who are “a person who invests in or hoards gold.” *Goldbug*, Merriam-Webster (2019), [www.merriam-webster.com/dictionary/goldbug](http://www.merriam-webster.com/dictionary/goldbug).

<sup>9</sup> Mankiw, *supra* note 3.

<sup>10</sup> *Id.*

reasonable allocations. In 2016, when the UVA plan was offering the Fidelity Select Gold Fund, a quarter of the participants who were invested in the fund had less than 1.1 percent of their portfolio invested in it, and half of the participants who were invested in this fund had invested less than 4.8 percent of their portfolio.<sup>11</sup> Five percent is a lot of gold, two and a half times the size of the small sliver settled on by Mankiw. But these allocations to our minds are at least close to the range that reasonable investors might adopt.<sup>12</sup>

The bad news is that many of the gold fund investors were unreasonably overinvested in this narrow asset class. In 2016, 13 percent of the participants invested in the fund had more than 70 percent of their portfolio invested therein; and 11 percent had all their plan savings invested in gold.<sup>13</sup> Holding such high proportions in a gold fund is not reasonable. Why did the Virginia plan include a gold fund? Probably, part of the reason was to satisfy the demand of goldbugs, who had strong preferences to put all their eggs in this precious metal. Perhaps they were joined by more sophisticated investors who wanted to hold a Mankivian sliver to better diversify their portfolio. On the other hand, the plan's advisor, Fidelity, had a strong financial interest in including the fund in the plan's menu, because the fund's annual fees were an outrageous 93 basis points.<sup>14</sup>

Our study of the UVA plan reveals that this diversification failure by overweighting narrow investments was not limited to a few zealous goldbugs. We also see that 13 percent of the people investing in Fidelity's Biotech fund had more than 40 percent of their UVA portfolio in this particular fund.<sup>15</sup> More generally, we show that, in 2016, 21.6 percent of participants that held any domestic equity sector funds held more than half their portfolio in domestic equity narrow-sector funds.<sup>16</sup>

These types of allocation mistakes are incredibly common – and costly. The problem is that the legal regime, at least superficially, appears to shield fiduciaries from concerns about how investors use menus. The ERISA § 404(c) safe harbor protects plan sponsors from liability for participant

<sup>11</sup> See *infra* Appendix Figure 1.

<sup>12</sup> See Mankiw, *supra* note 3 (a precise recommended percentage is elusive “because optimal portfolios are so sensitive to expected returns on alternative assets, and expected returns are hard to measure precisely, even with a century or two of data”).

<sup>13</sup> See *infra* Figure 1.

<sup>14</sup> Charging such high fees for a gold fund is particularly outrageous because there is no credible need for active management.

<sup>15</sup> *Id.*

<sup>16</sup> See *infra* Appendix Figure 2.

choices so long as the menu is prudently constructed. As a result, when investment committees meet, they routinely consider the performance of individual funds offered in their menu relative to other funds in the same asset class. But they do not consider the extent to which individual participants are making diversification, fee, or exposure errors.

Our first contribution is to argue that the ERISA fiduciary duty of prudence requires the consideration of menu misuse. An analogy to product liability supports this normative claim. A manufacturer who has ready access to information of injurious customers misuse of their product, and ready means of reducing the probability of harm would have a legal duty to act. Plan administrators who have taken on the higher duty of a fiduciary should have an analogous duty to learn and act. Fiduciaries' appeal to the 404(c) safe harbor as ground for ignoring participant choice is misguided, because the safe harbor applies only to menus that are prudently constructed, and therefore cannot be used to establish prudence in the first instance. We show that becoming better informed can naturally lead to substantive menu redesign.

This book's second contribution is to present an analysis of UVA participants as proof of concept, demonstrating two straightforward calculations that fiduciaries should undertake on an ongoing basis to better assess the likelihood and extent to which participants are misusing their plan's menu. We will refer to these two calculations as *over-weighting analysis* and *portfolio performance analysis*. First, to undertake an over-weighting analysis, fiduciaries should calculate the proportion of participants that have disproportionate investments in narrow sector or regional funds, as well as the proportion of participants who have disproportionate investments in various asset and fee classes. Even cursory investigation of individual menu allocations is likely to uncover substantial menu misuse, as we find at UVA and other scholars have found with regard to other plans.<sup>17</sup>

To accomplish a portfolio performance analysis, fiduciaries should calculate the historic return and risk of each participant's portfolio. We will show how risk/returns estimates can help substantiate evidence of menu misuse. We will also present examples of how such calculations can be arrayed in powerful scatterplot diagrams. The over-weighting and performance analysis are powerfully complementary in that fiduciaries can test

<sup>17</sup> See *infra* Part II.B; see also Donald B. Keim & Olivia S. Mitchell, *Simplifying Choices in Defined Contribution Retirement Plan Design: A Case Study*, 17 J. PENSION ECON. FINANC. 363 (2018).

whether participants who have made presumptive menu mistakes experience inferior portfolio risk and return outcomes relative to other plan participants.<sup>18</sup>

Our third contribution is to argue that corrective action for these issues is both feasible and productive. If fiduciaries find that substantial numbers of participants have made problematic portfolio allocations, they should consider two types of corrective actions: *streamlining the fund menu* and *imposing allocation guardrails*. The streamlining strategy is already part of the fiduciary toolkit. Its potential utility is vividly illustrated by our earlier gold fund example. Learning that 10 percent of gold fund investors hold more than 75 percent of their portfolio in that fund might suggest simply dropping the gold fund from the menu of offered funds. This “streamlining” redesign strategy has been embraced in recent years by a number of large plans, including both of our home institutions.<sup>19</sup> For example, in 2016, UVA streamlined its menu of fund offerings, moving from offering 241 funds to just 39 funds.<sup>20</sup> Under ERISA rules, a plan that decides to discontinue investments in a preexisting fund must notify plan participants invested in that fund that their investment will be “remapped” into another fund in the future unless the participant affirmatively chooses another menu option.<sup>21</sup> The UVA streamlining eliminated all 43 of its preexisting narrow sector fund offerings – including its gold fund – and remapped balances in these funds to the plan’s target date funds or to broad-based equity indexes. We show that streamlining substantially improved the diversification of participant plan balances.

Instead of the all-or-nothing choice of streamlining, fiduciaries who learn that participants are misusing their menu options should also consider imposing various forms of allocation *guardrails* – that is, limitations

<sup>18</sup> Part II. A responds to two arguments claiming that it is not feasible for the foregoing calculations to reliably identify whether or not particular participants are making menu mistakes. For example, we show that it is implausible that many of the Goldbugs had sufficient outside assets to offset their plan holdings of the precious metal. Moreover, we argue that the possible intent of participants to “beat the market” by concentrating their non-diversified investments should not prevent fiduciaries from inferring likely error.

<sup>19</sup> In 2019, Yale University streamlined its menu of fund offers moving from more than 100 funds to 11 funds. However, the streamlined menu gave participants the ability to invest at higher cost in a brokerage window. See Janet Linder, *Upcoming Changes to Your Yale Retirement Savings Program*, YALE UNIVERSITY (2018), [www.tiaa.org/public/pdf/Yale\\_Lindner\\_Letter.pdf](http://www.tiaa.org/public/pdf/Yale_Lindner_Letter.pdf); *infra* Part II.E (discussing brokerage windows).

<sup>20</sup> See *infra* Figure 17. These counts include only funds that were both offered to and held by individuals in our analysis.

<sup>21</sup> Keim & Mitchell, *supra* note 17.



on allocations to specific investments or classes of investments. For example, instead of eliminating the Fidelity gold fund, the UVA plan might have capped the percentage of new contributions that could be allocated to gold to say 10 percent. Guardrail interventions represent a kind of “asymmetric paternalism” in that they can help “individuals who are prone to making irrational decisions without harming those making informed, deliberate decisions.”<sup>22</sup> A guardrail capping gold fund contributions at 10 percent asymmetrically binds – protecting those who would have unwisely overweighted gold risk in their portfolio while allowing other, more prudent investors to continue making moderate investments in this precious metal fund. Caps can assure that participants do not invest too much in narrow-gauged sector funds, while guardrail floors can assure that participant portfolios maintain some exposure to certain asset classes, such as international equities and real estate.

For readers who initially balk at the idea that ERISA plans could offer but limit the proportion of funds that can be invested in a particular investment option, we’re happy to report that such percentage caps already exist in a number of plans with regard to participants’ ability to invest in one specific investment: company stock. Roughly two-thirds of plans that offer company stock often limit participant contributions to no more than 20 percent, and these limits are consistent with existing regulations. Chapter 6 details the myriad ways in which these guardrail caps are imposed. And Chapter 8 describes their impact, but spoiler alert: these company-stock guardrails have been highly effective at improving participant diversification! Vanguard reports that in 2005, 14 percent of Vanguard-advised participants had company stock portfolio concentrations greater than 20 percent, but by 2020 this proportion was only 4 percent.<sup>23</sup>

A second kind of ERISA guardrail is far more ubiquitous. Virtually all ERISA plans restrict participant choice by placing guardrails on the kinds of passwords that participants can choose to access their retirement

<sup>22</sup> George Loewenstein, Troyen Brennan & Kevin G. Volpp, *Asymmetric Paternalism to Improve Health Behaviors*, 298 JAMA 2416 (2007); Colin Camerer, Samuel Issacharoff, George Loewenstein, Ted O’Donoghue & Matthew Rabin, *Regulation for Conservatives: Behavioral Economics and the Case for Asymmetric Paternalism*, 153 U. PA. L. REV. 1211 (2003); Richard H. Thaler & Cass R. Sunstein, *Libertarian Paternalism*, 93 AM. ECON. REV. 175 (2003). See also Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not an Oxymoron*, 70 U. CHI. L. REV. 1159 (2003).

<sup>23</sup> *Id.* at 5. See also Olivia S. Mitchell & Stephen P. Utkus, *The Role of Company Stock in Defined Contribution Plans*, NBER WORKING PAPER 9250 (2002) (“Today an estimated 11 million participants have concentrated stock positions exceeding 20% of account assets.”).

account. For example, the University of Virginia plan which is advised/managed by Fidelity requires that passwords be at least six characters and prohibits sequences (e.g., 12345 or 11111), personal info (SSN, phone #, and DOB), or previously used passwords.<sup>24</sup> Such restrictions on personal choice can be justified by a mixture of paternalism and externality concerns. Fiduciaries are right to prohibit plan participants from choosing “11111” as their password to access their retirement savings. What is bizarre is that similar logic does not currently apply to limit a participant’s choice to allocate all their plan contributions to a gold fund or to company stock. A participant’s retirement nest egg can be devastated by misuse of allocation choice just as much as by misuse of password choice. Both password guardrails and allocation guardrails help protect participant savings from the risk of loss: password guardrails help protect against loss from theft, while allocation guardrails help protect against loss from idiosyncratic risk.

In addition to these “hard” allocation guardrails, Chapter 6 describes a range of softer allocation protections that include varying warnings and altering rules that modify the steps that participants would need to take in order to select a potentially problematic allocation. Just as websites at times give warnings about the weakness of proposed user passwords and provide advice on strengthening protection, fiduciaries might also deploy a mixture of warnings and prophylactic procedures to help assure that proposed participant allocations are not erroneous. In addition to the hard guardrail restriction on password choice, Fidelity offers advice on the attributes of a strong password.<sup>25</sup> Something as simple as asking participants “Are you sure you really want this allocation, because it seems to sacrifice substantial diversification benefits” might go a long way towards preventing menu misuse. For those who can’t imagine the law requiring such warnings, we’ll discuss how the law already does require this kind of warning with regard to overinvestment in company stock.<sup>26</sup>

Our fourth contribution is to examine how fiduciaries should weigh the trade-offs entailed when fiduciaries or regulations intervene to restrict participants’ allocative choice. Hard guardrails and menu streamlining are not unalloyed goods. In the case of streamlining, remember that

<sup>24</sup> *Create a Strong Password*, FIDELITY (2019), [www.fidelity.com/security/create-a-strong-password](http://www.fidelity.com/security/create-a-strong-password).

<sup>25</sup> *Id.* (“The strongest passwords are long and employ a mix of numbers, upper and lower case letters, and special characters.”).

<sup>26</sup> See *infra* Chapter 6.