

NBER WORKING PAPER SERIES

BUILDING EMERGENCY SAVINGS THROUGH EMPLOYER-SPONSORED RAINY-DAY  
SAVINGS ACCOUNTS

John Beshears  
James J. Choi  
Mark Iwry  
David John  
David Laibson  
Brigitte C. Madrian

Working Paper 26498  
<http://www.nber.org/papers/w26498>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
November 2019

The authors are grateful to Kari Hall, Catherine Harvey, Sarah Holmes Berk, Natalya Shnitser, Christine Jolls, Kurt Lawson, Will Sandbrook, Matthew Blakstad, and Jo Phillips for their helpful input; to Victoria Beecroft for assistance with manuscript preparation; to William Gale, Hilary Gelfond, Delaney Parrish, and the Brookings Institution for organizing a public release event in October 2017 for an earlier draft of this paper; and to Diane Garnick and David Neville for participating in the event. Beshears, Choi, Laibson, and Madrian gratefully acknowledge financial support from the National Institute on Aging (grants #P01AG005842 and #P30AG034532) and the Pershing Square Fund for Research on the Foundations of Human Behavior. The views expressed in this paper are solely those of the authors and do not represent those of their employers, the NBER, any agency of the federal government, the Pershing Square Fund, or any other organization. Nothing in this paper purports to be or should in any way be treated as either legal or tax advice. The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

At least one co-author has disclosed a financial relationship of potential relevance for this research. Further information is available online at <http://www.nber.org/papers/w26498.ack>

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2019 by John Beshears, James J. Choi, Mark Iwry, David John, David Laibson, and Brigitte C. Madrian. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Building Emergency Savings Through Employer-Sponsored Rainy-day Savings Accounts  
John Beshears, James J. Choi, Mark Iwry, David John, David Laibson, and Brigitte C. Madrian  
NBER Working Paper No. 26498  
November 2019  
JEL No. D14

### **ABSTRACT**

Many Americans live paycheck to paycheck, carry revolving credit balances, and have little liquidity to absorb financial shocks. One consequence of this financial vulnerability is that many individuals use a portion of their retirement savings during their working years. For every \$1 that flows into 401(k)s and similar accounts, between 30¢ and 40¢ leaks out before retirement (Argento, Bryant, and Sabelhaus 2015). We explore the practical considerations and challenges associated with helping households accumulate liquid savings that can be deployed when urgent pre-retirement needs arise. Automatically enrolling workers into an employer-sponsored “rainy-day” or “emergency” savings account—terms that we use interchangeably in this paper—funded by payroll deduction could be a cost-effective way to achieve this goal. We explore three specific implementation options: (a) after-tax employee 401(k) accounts; (b) deemed Roth IRAs under a 401(k) plan; and (c) depository institution accounts. We evaluate the pros and cons of each approach and conclude that all three approaches merit exploration and field testing.

John Beshears  
Harvard Business School  
Baker Library 439  
Soldiers Field  
Boston, MA 02163  
and NBER  
jbeshears@hbs.edu

James J. Choi  
Yale School of Management  
165 Whitney Avenue  
P.O. Box 208200  
New Haven, CT 06520-8200  
and NBER  
james.choi@yale.edu

Mark Iwry  
The Brookings Institution  
1775 Massachusetts Ave NW  
Washington, DC 20036  
jmarkiwry@gmail.com

David John  
AARP Public Policy Institute  
601 E Street NW  
Washington, DC 20049  
djohn@aarp.org

David Laibson  
Department of Economics  
Littauer M-12  
Harvard University  
Cambridge, MA 02138  
and NBER  
dlaibson@gmail.com

Brigitte C. Madrian  
730 B N. Eldon Tanner Building  
Brigham Young University  
Provo, UT 84602-3113  
and NBER  
brigitte\_madrian@byu.edu

## I. Introduction<sup>2</sup>

Many Americans live paycheck to paycheck, carry revolving credit balances, and have little liquidity with which to absorb financial shocks (Angeletos et al. 2001; Kaplan and Violante 2014; Kaplan, Violante, and Weidner, 2014). Thirty-nine percent of U.S. adults report that they could not pay for a \$400 emergency expense using cash or its equivalent (Board of Governors of the Federal Reserve System 2019). In the 2013 Survey of Consumer Finances, liquid net worth for the median household with a head aged 41-51 is only \$813, while at the 25th percentile it is -\$1,885 (Beshears et al. 2018a).<sup>3</sup> The picture is only slightly better for households nearing or entering retirement (after a lifetime of saving). Among households whose head is age 61-70, median liquid net worth is \$6,213, while at the 25th percentile it is \$1.

With limited liquidity, many working-age households spend savings intended to finance old-age consumption well before reaching retirement. Using Internal Revenue Service (IRS) tax return data, Argento, Bryant, and Sabelhaus (2015) find that for individuals under age 55, the annual distributions *out* of defined contribution retirement plans (i.e., 401(k) plans, IRAs, etc.) equals 30 to 40 percent of the flows into those plans.<sup>4</sup> This leakage does not include loans that are repaid, another significant source of liquidity out of 401(k) and other similar savings plans (Beshears et al. 2012).

These patterns of behavior can be explained by several behavioral biases, including present bias—the propensity to overweight the present relative to the future. Individuals with present bias tend to act impatiently in the present while *wanting* to act patiently in the future (Laibson 1997). They will overspend today while simultaneously enrolling in a 401(k) plan that reflects their preference to save in the future. In the long run, they accumulate significant stocks of illiquid assets (e.g., home equity) and essentially no liquid wealth (Angeletos et al. 2001; Beshears et al. 2018a); the liquid wealth is spent on instant gratification, whereas the illiquid wealth is protected from such splurges. Relative to normative benchmarks, households with present bias hold too little liquid wealth and will deplete their partially liquid retirement savings (e.g., through 401(k) loans or pre-retirement distributions) when adverse shocks arise. Present

---

<sup>2</sup> We refer readers interested in a more concise treatment of these issues to the version of this paper published in *Tax Policy and the Economy* (forthcoming).

<sup>3</sup> Liquid net worth includes all assets (except pension wealth; retirement savings accounts, e.g., 401(k) accounts and IRAs; homes; and durable assets) net of all debt (except student loans and collateralized debts, e.g., mortgages and car loans).

<sup>4</sup> These distributions do not include IRA rollovers or Roth conversions.

bias combines with other behavioral biases such as limited foresight, myopia, and over-optimism to contribute to households' propensity to accumulate and hold sub-optimally low levels of liquid wealth.

This paper explores the practical considerations and challenges associated with helping households accumulate liquid savings that can be deployed when urgent pre-retirement expenditure needs arise. Automatically enrolling workers into an employer-sponsored “rainy-day” or “emergency” savings account—terms that we use interchangeably in this paper—funded by payroll deduction could be a cost-effective way to achieve this goal.

Employer-sponsored retirement plans play an important role in facilitating financial preparedness for retirement. The Employee Benefit Research Institute's Retirement Confidence Survey (2017) finds that 71 percent of households with an employer-sponsored retirement plan report being somewhat or very confident that they will have enough money to live comfortably in retirement, a sentiment expressed by only 33 percent of households who do not have an employer-sponsored retirement plan. Using payroll deduction to fund 401(k) and similar retirement savings vehicles is a familiar and widely accepted practice in the U.S. (Orszag, Iwry, and Gale 2006). Using payroll deduction for non-retirement savings also has precedent. During World War II and for decades thereafter, payroll deduction was used to allow employees to purchase U.S. Savings Bonds. Payroll deduction is also commonly used in employer-sponsored health plans, cafeteria plans, and other employee benefit arrangements.<sup>5</sup>

The power of payroll deduction to improve retirement savings outcomes is enhanced dramatically when combined with automatic enrollment, which results in high savings plan participation rates for employees of all ages, incomes, genders, and races/ethnicities (Madrian and Shea 2001; Choi et al. 2002, 2004; Beshears et al. 2008; Gale et al. 2009; Vanguard 2019). After the U.S. Treasury Department and the IRS issued their landmark rulings defining, approving, and setting the basic terms for permissible automatic enrollment into 401(k) plans,<sup>6</sup>

---

<sup>5</sup> For an introduction to cafeteria plans, see <https://www.irs.gov/government-entities/federal-state-local-governments/faqs-for-government-entities-regarding-cafeteria-plans>

<sup>6</sup> Revenue Ruling 1998-30, Revenue Ruling 2000-8, Revenue Ruling 2000-35 (403(b) plans), Revenue Ruling 2000-33 (457 plans for state and local government employees), IRS Announcement 2000-60 (prototype 401(k) plans), IRS General Information Letter to J. Mark Iwry, dated March 17, 2004; Treasury Regulations section 1.401(k)-1(a)(3)(ii). In addition, to help preserve retirement assets, Treasury proposed, and Congress enacted, legislation authorizing retirement plans to automatically roll over to IRAs account balances between \$1,000 and \$5,000 of employees who leave their job without directing the disposition of their plan balances (Internal Revenue Code section 401(a)(31)(B))

the fraction of plans automatically enrolling employees unless they opt out increased dramatically. The estimated share of large 401(k) plans using automatic enrollment grew from almost none to as much as 41 percent (by some estimates) before the Pension Protection Act of 2006 (Plan Sponsor Council of America 2007). Automatic enrollment continued to expand with the enactment of the Pension Protection Act, and recently reached as much as 68 percent (by some estimates) of large 401(k) plans (Plan Sponsor Council of America 2018; Vanguard 2019). Moreover, 97 percent of surveyed employees whose companies use automatic enrollment report being glad their employer does so, and this support is remarkably high among all demographic sub-groups, including those who opted out of participation (Harris Interactive 2007). We believe that worker participation in and support of automatic enrollment into employer-sponsored rainy-day savings accounts would also be high, though it is not known whether it would be as high as it is for 401(k) auto-enrollment.

Increasing savings in a rainy-day account could be counterproductive if contributions to these accounts are funded not by decreased consumption during working years, but by reducing other assets or increasing household debt. There is mixed evidence on the potential for such “crowd-out” effects. Chetty et al. (2014) find that when mandatory employer pension contributions increase, an employee’s total savings increase by 80 percent of the additional employer contribution, implying only a 20 percent rate of crowd-out from other assets. Beshears, Choi, Laibson, Madrian, and Skimmyhorn (2017) find that automatic enrollment of government employees into the federal government’s Thrift Savings Plan did not cause a statistically significant change in the amount of non-collateralized debt at any time horizon up to four years (the longest time horizon studied). It did increase automobile loan and first mortgage balances at longer time horizons, but these liabilities have an uncertain impact on net worth as they may be accompanied by the acquisition of a new asset. Overall, the existing literature suggests that crowd-out effects may be modest, although the literature is not yet in a mature phase in which a clear consensus has emerged. It will be important to measure the extent of crowd-out effects when companies adopt rainy-day savings account programs.

This paper discusses the potential design of employer-sponsored rainy-day savings accounts. We start in Section II by discussing the motivation for wanting individuals to have a separate rainy-day savings account. In Section III, we discuss the key conceptual issues that should be considered when establishing such accounts, including the ability of the rainy-day account to

provide liquidity when the funds are needed; the tax treatment of withdrawals; the ability to achieve effective psychological separation between rainy-day savings and retirement savings so that rainy-day accounts do not encourage leakage of retirement savings; the target size of the rainy-day account; the ability to automatically enroll employees in the rainy-day account; employers' ability to match employee contributions to the rainy-day account; compliance and potential interactions with the nondiscrimination rules that apply to tax-qualified employer-sponsored plans; the investment of the rainy-day savings, including fees and expenses; and the need to manage account transitions when employees separate from an employer.

In Sections IV-VI, we discuss three specific implementation models and their pros and cons given existing regulatory regimes. First, we discuss using after-tax employee contribution accounts within a 401(k) plan as the vehicles for rainy-day saving. Second, we discuss using deemed Roth IRAs associated with a 401(k) plan as the vehicles for rainy-day saving. Finally, we discuss going outside the qualified and ERISA plan system and using bank accounts or other depository institution accounts as the vehicles for rainy-day saving.<sup>7</sup> While the first two models would be limited to employees of firms that offer a retirement plan, the third could also be suitable for employees who are ineligible for a 401(k) and for the self-employed or others not in a traditional employment relationship. Indeed, rainy-day savings for those without access to a 401(k)-type plan could be even more important than for those already saving for retirement. Even for those with access to a 401(k), significant logistical/legal simplicity might be gained by setting up a completely separate rainy-day savings account. In Table 1, we summarize how each of the account structures fares relative to the relevant conceptual issues discussed in Section III.

## **II. The Case for Rainy-Day Savings Accounts**

Because many Americans already have retirement savings accounts that they are using to meet financial shocks before retirement, as well as a bank account from which ordinary current expenses are paid, one could question whether households need a separate rainy-day savings account. There are several reasons why multiple savings accounts, each designated for a different purpose, may be preferable to having a single retirement savings account serving both short-term

---

<sup>7</sup> Another variation would be for employers to arrange to offer their employees stand-alone Roth IRAs (instead of stand-alone depository accounts or deemed, sidecar Roth IRAs associated with a 401(k) plan). This paper does not explore that alternative, but most of its advantages and drawbacks are evident from the discussion here.

liquidity and longer-term retirement savings needs, or a single bank account that finances both ordinary current expenses and rainy-day expenses. The overarching rationale lies in the concept of mental accounting, the “set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities” (Thaler 1999). Having a separate rainy-day savings account may facilitate better financial decision-making by households through better mental accounting.

First, having a separate rainy-day account enforces discipline in recognizing what savings can and cannot do. Cheng and Cryder (2018) show that when a single gain can be mentally associated with multiple costs (the scenario they study is a promotional gift card received if a purchase is made; the card balance is then associated with both the original purchase and the future purchase), individuals double-count the gain and end up spending more. Analogously, when a single savings account serves multiple purposes, it may be easy to engage in a sort of self-deception, believing that a dollar saved that could be used to cover either a short-term financial shock or retirement consumption is in fact available to finance both. This belief reduces net savings flows. Cheng and Cryder (2018) find that making it mentally harder to tie a gain to multiple costs mitigates the double-counting effect. In the same way, the act of designating whether a dollar of savings is intended for short-term versus long-term use, or for ordinary current expenses versus rainy-day expenses, may force a recognition that a dollar can only be spent once.

Second, having an additional rainy-day account may increase savings inflows because of partition dependence—the bias towards allocating an equal amount to every discrete category offered (Fox, Ratner, and Lieb 2005). Beshears et al. (2017) find using a survey experiment that subjects recommend higher total 401(k) contribution rates when they have to separately recommend both a before-tax and a Roth contribution rate, rather than first recommending a total contribution rate that they *later* split between a before-tax and a Roth account. They interpret this as arising because partition dependence reduces the amount allocated to current consumption when the options are perceived to be {current consumption, before-tax contribution, Roth contribution} instead of {current consumption, retirement contribution}. If having two separate 401(k) accounts increases individuals’ total 401(k) contributions, it may be that having separate retirement, rainy-day, and ordinary-expense savings accounts would increase total savings as well

Third, having a separate account uniquely designated for rainy-day expenses may protect rainy-day savings from being spent for other purposes. Zhang and Sussman (forthcoming) survey the literature on mental accounting and cite several papers that show that funds earmarked for certain uses are less likely to be spent on other categories.

Fourth, having a partition that separates rainy-day savings from retirement savings may protect retirement savings from being spent on a rainy day. If the retirement savings account serves both to save for retirement and to finance rainy-day expenses, then on a rainy day, there may be a strong temptation to withdraw more than necessary because there is no discrete boundary between withdrawing the first dollar in the retirement account and withdrawing the last dollar in the retirement account. If an individual has one account intended to be used only for rainy-day expenses, and the retirement account is designated to be used only for retirement savings, then when the individual taps the rainy-day account, she may be less likely to also withdraw from her retirement account because breaching that partition makes the violation of the intended savings rule more salient and guilt-inducing. This supposition is supported in a field experiment among construction workers in rural India. Soman and Cheema (2011) find that dividing a fixed savings amount across multiple accounts increased asset accumulation by reducing withdrawals. Having multiple accounts has no impact on the likelihood that individuals tap into their savings, but it dramatically reduces the amount that individuals withdraw when they do access their savings. When individuals have multiple accounts, each with a smaller amount, many individuals are able to address short-term needs by tapping into only one smaller account while leaving the other untouched.

A caveat is that Medicaid, TANF (Temporary Assistance for Needy Families), SSI (Supplemental Security Income), LIHEAP (Low Income Home Energy Assistance Program), and other public assistance programs have rules limiting eligibility for the program to individuals who do not have assets in excess of a small amount, such as \$2,000. These asset limits differ depending on the public benefit program and, in many cases, the type of assets (the 401(k), IRA, and depository account savings discussed here would commonly be restricted) and the state in which the applicant lives. While a few programs do permit retirement or other saving without disqualifying applicants, such as SNAP (Supplemental Nutrition Assistance Program) and ABLE (Achieving a Better Life Experience), in the aggregate, these asset limit rules are not easy for most program applicants to keep track of, and they reduce the incentive for low-income



households to save. Employers with a significant low-income employee population need to be cognizant of how initiatives to encourage asset accumulation might interact with public assistance programs. That said, living paycheck to paycheck is common even among households that are not low-income; 24 percent of households earning more than \$100,000 a year say they could either not cover a \$400 emergency expenditure or would need a loan, sale of an asset, or assistance to do so (Morduch and Schneider, 2017, Figure 3.4).

### **III. Framework for Designing and Evaluating Employer-Sponsored Rainy-Day Savings Account Structures**

This section outlines the conceptual issues that should be kept in mind as we consider the three potential approaches to providing rainy-day savings. This paper is not intended to provide a comprehensive analysis of the possible alternatives. Many of the relevant considerations involve legal issues that have yet to be resolved, including the uncertain application of a body of complex and often technical plan qualification, tax, ERISA, banking, and other laws and regulations, together with numerous issues of practical implementation. Rather, our intent is to briefly outline the salient features of three leading potential approaches, including what currently appear to be their most significant advantages and disadvantages, and focus on the more significant design and implementation issues.

A well-designed rainy-day or emergency savings arrangement needs to be easy for savers to be enrolled in and to use, and easy for employers and payroll or financial providers to establish and manage. It should also minimize unintended adverse consequences. In designing such an arrangement, we suggest nine key features and concerns that should be taken into account:

- 1) **Liquidity** (at reasonable or no cost) when the rainy-day funds are needed;
- 2) **Tax treatment** of withdrawals from the rainy-day savings account (which affects liquidity) and contributions to the account;
- 3) Partitioning of the rainy-day and retirement savings accounts to encourage separate **mental accounting** by employees, so that rainy-day accounts do not have the unintended consequence of psychologically licensing leakage from retirement savings accounts;
- 4) Ability to **automatically enroll** employees in the rainy-day savings account;

- 5) Ability to make **employer matching contributions** with respect to individuals' contributions to the rainy-day savings account, and the destination of those matching contributions (e.g., into the rainy-day account, or into the 401(k) account);
- 6) **Compliance** and potential interactions with the nondiscrimination rules that apply to tax-qualified employer-sponsored plans;
- 7) **Investment** allocation of rainy-day savings account balances, as well as fees and expenses;
- 8) **Portability** of rainy-day savings (specifically, discouraging rainy-day account balances from becoming inefficient cash distributions when employees separate from an employer); and
- 9) **Target balance** of the rainy-day account, if any, and what happens to further contributions once the target balance is reached.

### ***1. Liquidity***

Rainy-day funds are of little use if they cannot be easily and quickly accessed when needed. At the same time, to help ensure that funds are available for actual emergencies, the account should not be used for routine consumption. Trading off these two needs is not easy, and the right balance between them could vary according to the account owner's specific circumstances.

For example, a middle-to-upper-income saver may find it best to have an account that requires a three-day delay before withdrawals are wired to his or her checking account. This saver might not suffer (and might even benefit) from a brief delay and may also be able to bear the cost of wire transfer fees. In contrast, an account owner with lower or more volatile income is likely to have a greater need for an account that is instantly available and that charges no wire transfer or other withdrawal fees. Survey research suggests that rapid access to a rainy-day account is perceived to be desirable by individuals in both income groups (Brown et al. 2018). However, these survey responses are not definitive, and the most desirable degree of "instantaneous" liquidity therefore remains an open question. Based on the information currently available, we proceed under the assumption that maximally rapid liquidity is desirable.

The issue of liquidity is particularly complex for rainy-day accounts that are established as part of a 401(k) plan. Qualified employer-sponsored plan accounts are subject to two layers of withdrawal restrictions. First, they generally have withdrawal rules intended to preserve tax-

qualified contributions and earnings for use in retirement as opposed to earlier consumption. In many circumstances, these rules prohibit withdrawals while an individual is still employed by the employer sponsoring the plan. Second, withdrawals from qualified plans are subject to tax treatment (including regular income tax, a 10 percent additional tax on early withdrawals, and, in some cases, mandatory 20 percent withholding) designed in large part to discourage early withdrawals.

Plan sponsors would need to decide whether to impose withdrawal restrictions for emergency savings accounts so that they provide liquidity while ensuring that the accounts are used for their intended emergency purposes, rather than as checking accounts for minor, routine, or discretionary expenses. Such withdrawal requirements might take the form of a minimum dollar withdrawal threshold (if it were possible to impose such a restriction without violating the qualified plan nondiscrimination rules), a limit on the number of withdrawals an employee can make within a given time period, or a requirement to certify or substantiate that the withdrawal is for a permitted purpose. However, if such restrictions were—or were perceived as being—unduly cumbersome, time-consuming, or burdensome to plan administrators or to employees, they could undermine emergency saving by dissuading potentially interested employers from offering emergency saving programs or by discouraging employees from using them.

Given the initial hurdle of persuading employers to extend their voluntary benefit programs to include rainy-day savings, a very strong case can be made for not imposing additional restrictions on withdrawals from rainy-day accounts, or at least from rainy-day accounts with smaller balances. The unrestricted approach would be simpler for plan sponsors and their recordkeepers or other providers to administer. It would be simpler to describe to participants and simpler for participants to use. It would recognize that the tax treatment of withdrawals (discussed below) already subjects many withdrawals to one layer of friction and reduces the simplicity of the arrangement, and that messaging—framing the arrangement as an emergency savings account that the employer has established solely for that purpose—should help discourage excessive withdrawals.

Not all plan sponsors and providers will necessarily react similarly to the notion of not imposing additional restrictions on withdrawals. Some might balk at the risk that the arrangement could become, in effect, a tax-favored checking account equally available for sunny and rainy days. Some employees also might feel more comfortable knowing that certain limitations are in

place to help them protect themselves against the temptation to dissipate the account through discretionary spending. For these employers and employees, the option of a somewhat restricted rainy-day account could be made available. Some plan sponsors might conclude that withdrawal fees charged to participants to help recover the costs of processing plan withdrawals create the right amount of discouragement from using the rainy-day account as if it were a regular checking account. Here, as with most aspects of rainy-day savings, experimentation through pilot projects and early implementation efforts will be informative.

Another liquidity-related design issue is how best to coordinate emergency savings withdrawals with withdrawals of pre-tax elective contributions to retirement plans. Presumably, employees could be expected to view the plan's emergency savings account as the source of first resort for emergency withdrawal needs because it is designated as such and because of its relative ease of withdrawal. (As discussed below, rainy day savings accounts might be designed to first use funds that provide comparatively favorable tax treatment upon withdrawal). By contrast, hardship withdrawals of pre-tax retirement plan contributions could be expected to involve more time and paperwork and would be subject to taxation (potentially including the 10 percent additional tax on early withdrawals).<sup>8</sup>

In addition, the section 401(k) hardship withdrawal rules generally require an employee applying for a hardship withdrawal to represent in writing that alternative sources of funds or other liquid assets are not reasonably available to meet the immediate financial need. This requirement could work well in the case of a financial emergency of the sort the emergency savings account is intended to serve. The employee would withdraw first from the emergency savings account, and if this amount is insufficient, the employee would then seek a hardship withdrawal.

Whether this presents a practical problem depends on how the plan sponsor views the intended scope—and how it designs the actual scope—of its emergency savings account compared to the plan's hardship withdrawal provisions. It also might depend importantly on the availability of plan loans to participants, the intended and actual scope of the purposes for which the plan

---

<sup>8</sup> Until 2019, hardship withdrawals also were subject to another liquidity constraint: a required suspension of the employee's ability to make pre-tax or after-tax contributions to the plan or any other plan of the employer for six months after such a withdrawal. However, Treasury and IRS have issued regulations, pursuant to the Bipartisan Budget Act of 2018, requiring 401(k) plans, beginning in 2020, to eliminate any such suspension. Treasury and IRS regulations also implement a congressional directive in the Bipartisan Budget Act of 2018 to eliminate another condition in the safe harbor that required an employee to exhaust the ability to take any available plan loans before making hardship withdrawals. See 84 Fed. Reg. 49651 (Sept. 23, 2019); Bipartisan Budget Act of 2018, sections 41113-41114.

permits loans, and the way the plan coordinates hardship withdrawals and loans. (Some plans restrict loans to purposes that would otherwise justify a hardship withdrawal under the plan.)<sup>9</sup>

More generally, adding an emergency savings account to a typical 401(k) plan, which offers loans as well as hardship withdrawals, would present a three-way coordination issue. Loans might entail less risk of leakage than emergency withdrawals because 401(k) plan loans must be repaid by payroll deduction,<sup>10</sup> but an emergency savings account that is replenished automatically by further employee contributions (unless the employee opts out of it) might not be very different in this regard. In addition, loans might not be sufficiently speedy to obtain and might require more cumbersome administrative procedures than emergency withdrawals. Of course, these considerations do not apply in the same way to an emergency savings account located at a depository institution and not linked to a 401(k) plan.

An additional operational question may apply to rainy-day accounts located within retirement plans. Typically, investment managers return funds to investors by selling assets during hours when financial markets are open. Providers we have consulted say that this means that requests for withdrawals received during a weekend would not be considered until Monday, and that funds may not be available to go to the account owner until 24 hours or more after that. In addition, some providers may use wire transfers to send the money to the saver's bank or credit union, a process that commonly involves fees. Actual operational processes may differ from provider to provider, but it will be important for those considering a rainy-day account within a retirement plan to review withdrawal procedures as the accounts are set up.

This type of operational constraint is not likely to apply to accounts located in a depository institution, as such institutions regularly provide funds quickly. However, some of these accounts may be subject to restrictions or fees. In addition, while cash withdrawals are available through ATMs when banks and credit unions are closed, there is often a fee and usually an upper limit on how much can be withdrawn from ATMs during a 24-hour period. Cash withdrawals above that limit usually are available only during regular business hours, but transfers to another account or online payment applications are available at all times.

---

<sup>9</sup> At termination of employment, many loans are not repaid and are deemed to be taxable distributions.

<sup>10</sup> See note 8, above.

## ***2. Tax treatment***

The taxable portion of a withdrawal from a retirement savings plan is subject to income taxation and might also be subject to a 10 percent additional tax on early withdrawals. This 10 percent additional tax, often referred to informally as a “penalty,” is designed as a disincentive for early withdrawals with certain exceptions. In addition, the taxable portion of a lump-sum withdrawal from a qualified plan made during or after employment that is not rolled over to another plan or IRA will generally be subject to 20 percent mandatory income tax withholding unless it is a hardship withdrawal or a withdrawal that includes taxable funds less than \$200 (when aggregated with other such withdrawals in the same year).<sup>11</sup> The withholding is not an additional tax on the withdrawal but an advance payment of tax that might be due, and the amount by which it exceeds the tax due at the time the household files its annual taxes is refundable.<sup>12</sup>

To the extent that regular income tax, 10 percent additional tax, and 20 percent tax withholding apply to a withdrawal, they entail obvious drawbacks in the context of an emergency savings system connected to a retirement plan. While some employees experiencing an emergency might pay little or no attention to the tax consequences, and while adverse tax consequences might even be regarded by some as a useful friction that discourages withdrawals for nonemergency purposes, adverse tax consequences generally would be an unwelcome complicating factor. In particular, the necessarily complex disclosure of these rules could undermine the appeal of the arrangement and the desired simplicity of communications to employees.

In almost all conventional depository institution accounts, contributions or deposits would be made using after-tax dollars, and withdrawals would be nontaxable. However, any earnings would be taxable income in the year they are earned and would be reported as such to taxpayers and the IRS on a Form 1099-INT.

The discussion below assumes that bank or credit union accounts are funded with after-tax contributions from the employee, possibly augmented by employer contributions or matches that are considered as taxable income to the saver in the year that they are made, and does not assume

---

<sup>11</sup> There are exceptions to the 10 percent additional tax (for example, withdrawals used for higher education expenses or first-time home purchases up to \$10,000), and there are different exceptions to the 20 percent mandatory withholding. The taxable portion of a lump-sum withdrawal from a qualified plan made during or after employment that is not rolled over to another plan or IRA will generally be subject to 20 percent mandatory income tax withholding unless it is a hardship withdrawal or a withdrawal that includes taxable funds less than \$200 (when aggregated with other such withdrawals in the same year).

<sup>12</sup> Treas. Reg. section 31.3405(c)-1, Q&A-14. The 20 percent mandatory withholding requirement does not apply to withdrawals from IRAs, including deemed IRAs, as discussed below.

any new tax advantage for rainy-day accounts. While a new tax credit or other tax incentive to encourage saving in rainy-day accounts might be helpful, it would of course require legislation.

### ***3. Mental accounting***

A successful rainy-day savings account should “first do no harm”: it needs to avoid causing leakage from – or excessive “crowd out” of – retirement savings or other long-term savings accounts. In general, this would appear to require effective separation between rainy-day and retirement savings accounts, whether by the actual structure of the accounts (which typically constitute separate “buckets” for recordkeeping and tax purposes) or the way they are presented by the sponsor and perceived by the owner. Joint statements from a single source concerning both accounts might heighten confusion by muddying their distinctions, or might provide clarity by offering a unified explanation of their similarities and differences. Even if the saver is enrolled in both accounts at the same time, each has a specific use that should not be confused with the other. To that end, the rainy-day account could be presented as designed expressly to facilitate emergency saving, in contrast to the longer-term purpose of retirement savings accounts.

### ***4. Automatic enrollment***

Automatic enrollment, whereby employees automatically contribute to an employer-sponsored savings plan unless they opt out, is extremely popular with employees and has substantially increased plan participation, especially among younger workers, lower-paid employees, women, and minorities (DCIIA 2017; RMS 2015).

It is exactly these groups who would most benefit from a rainy-day account. Simultaneous automatic enrollment of workers in a retirement savings plan and a rainy-day account seems likely to greatly increase participation in emergency saving and therefore could sharply reduce the proportion of adults who cannot come up with enough savings to handle a basic financial emergency.

However, while automatic enrollment is explicitly allowed for tax-qualified retirement savings plans, whether it is allowed for generic rainy-day accounts is less clear. In some cases, the ability to use the mechanism can be assumed, but in other circumstances, questions arising from a variety of laws and regulations would need to be resolved.

## ***5. Employer matching contributions***

Employer contributions to a retirement plan are a traditional method of building substantial resources for a secure retirement. Employer matching contributions can also encourage employee contributions, although there is mixed evidence on how large this effect is (e.g., see Choi 2015 and Brown et al. 2018). Employer contributions that match employee contributions to a rainy-day account might play a similar role in encouraging rainy-day saving and could either add to the balances in those accounts (under some arrangements) or be deposited in the traditional 401(k) employer matching accounts. Employers concerned about exceeding their matching budget could provide for rainy-day matching to offset matching in the traditional DC retirement account, thereby keeping the same cap on the firm's overall matching costs.

While most 401(k) plans provide employer contributions, they generally are carefully budgeted and limited,<sup>13</sup> and some plans have none. In deciding whether to provide employer contributions to match rainy-day saving by employees, there are a number of special considerations to bear in mind. Employer matching contributions with respect to a rainy-day account may prove to be administratively more challenging than traditional employer matching, especially if the employer needs to coordinate its matching of rainy-day saving with its matching of traditional 401(k) retirement saving.

Employer matching in a qualified retirement savings plan also is subject to nondiscrimination testing; while this would not necessarily be a problem, compliance would need to be carefully monitored if the employer match were geared to employee rainy-day contributions. One reason is that nondiscrimination results might be different and less predictable than usual because the pattern of after-tax employee contributions to a qualified plan for rainy-day savings might differ from the normal pattern of employee contributions to a 401(k) plan for retirement savings. A second reason for careful monitoring is that employer contributions to a qualified plan that are made on account of employee contributions or other employee activity outside of a qualified plan are subject to different nondiscrimination testing than the traditional 401(k) employer match.<sup>14</sup> For example, employer contributions to a 401(k) or other qualified plan that

---

<sup>13</sup> Employer contribution formulas vary considerably, but the most common formula provides a 50-cents-on-the-dollar match of employee pre-tax contributions up to 6 percent of pay, which aggregates to slightly less than half the amount of the average employee contribution.

<sup>14</sup> This issue has been the subject of considerable attention in connection with the use of employer matching contributions to 401(k) plans to assist employees who are repaying student loans. Under this approach, an employer that sponsors a 401(k) with a traditional employer match might make the same match available regardless of whether



matches employee contributions that are neither employee pre-tax nor employee after-tax contributions to the qualified plan but rather are employee contributions to a rainy-day savings account in a bank entirely separate from the qualified plan (as described below) would be tested for nondiscrimination according to rules applicable to employer nonmatching (often referred to as employer “nonelective”) contributions. Finally, matching in a rainy-day account presents other idiosyncratic regulatory challenges, which we discuss in the next subsection.

A general concern raised by employer matching contributions is the risk of manipulation via “churning” by employees. Unless restrictions applied, employees who could freely withdraw their contributions might contribute, receive an employer match, withdraw the contributions that induced the match, contribute again to earn another employer match, and so forth— using the same employee dollars repeatedly to generate multiple matching contributions. While such churning could occur in theory, in practice there is no evidence of churning where it is already allowed in 401(k) plans: for employees over age 59½ who can withdraw funds without penalty (Choi, Laibson, and Madrian 2011).

In 401(k) plans, the use of pretax contributions to manipulate the employer match is curtailed by restrictions on the ability to withdraw pre-tax contributions while a participant is still employed. Moreover, under the widely used 401(k) hardship withdrawal safe harbor rules, employees making a hardship withdrawal were subject to a six-month suspension of their ability to contribute or receive employer contributions.<sup>15</sup> However, as explained in footnote 7, pursuant to recent legislation, this six-month suspension requirement has been eliminated, thereby permitting employees to continue contributing without interruption after making a hardship withdrawal (whether matched by employer contributions or not). Tax-qualified plans also are

---

an employee repays student debt or contributes pre-tax or after-tax to the 401(k) plan. Under one plan design, the employee earns an employer match for either student loan repayments or retirement savings contributions, but not both. (This design is intended in part to avoid violating the prohibition in the 401(k) rules on conditioning employer contributions or other benefits—other than traditional matching contributions—on whether an employee elects to contribute to a 401(k). See PLR 201833012 (Aug. 19, 2018).) The Treasury Department and the IRS are currently considering whether to issue further guidance on such plan designs, in which employer matching contributions operate largely analogously to how they would in similar rainy-day plan designs. In addition, legislative proposals would relax some of the otherwise applicable qualified plan restrictions on employer contributions matching employees’ student loan repayments. See, e.g., “Retirement Parity for Student Loans Act”, S. 3771, introduced by Senator Ron Wyden, (D-OR).

<sup>15</sup> The former six-month suspension requirement was set forth in Treas. Regs. §1.401(k)-1(d)(3)(iv)(E) (a plan that seeks to satisfy the “safe harbor” hardship rules must suspend for at least six months after the hardship withdrawal the employee’s ability to make pre-tax and after-tax employee contributions to the plan and other plans maintained by the employer). See note 7 regarding the repeal of this requirement.

required, under old rulings that apparently continue to be in effect, to impose a similar six-month suspension or other restrictions after withdrawals of after-tax employee contributions that are matched by employer contributions. However, the rulings provide no guidance on the other kinds of restrictions that qualified plans might be permitted to impose in order to meet the requirement to discourage withdrawals of contributions that have been matched.<sup>16</sup> (These rules do not apply to withdrawals from accounts that are not part of a tax-qualified plan such as a 401(k).) Accordingly, under the current regulatory framework, matching in after-tax 401(k) plans raises a potential concern which we will revisit in Section IV of this paper.

In principle, when an employer matches employee rainy-day account contributions, then, depending on how the rainy day account is structured (for example, inside versus outside of a qualified retirement savings plan), it may be possible to deposit the matching contributions in the rainy-day account, in a retirement savings plan's regular employer matching account, or in a combination of the two. Market research suggests that either location for the match would be acceptable to employees and would encourage them to contribute to a rainy-day account (Brown et al. 2018). Certain account structures make it easier for employers to match contributions than others, but other factors are also important. These include whether employer contributions would be treated as taxable income for the employee (which generally would not be the case in qualified plans) and how easily they could be withdrawn. In structures with easy withdrawal options, the potential for an employee to promptly withdraw employer contributions rather than saving them raises questions. Similarly, the effects of making employer contributions to a rainy-day account instead of a retirement account must be considered with care to ensure that retirement security would not be undermined.<sup>17</sup>

## **6. Compliance**

Rainy-day savings arrangements within a 401(k) plan could affect a plan's compliance with the plan qualification rules designed to prevent discrimination in favor of highly compensated employees.<sup>18</sup> (Highly compensated employees and non-highly compensated employees are

---

<sup>16</sup> See, for example, Revenue Ruling 74-55; Revenue Ruling 74-56. See also Revenue Ruling 72-275.

<sup>17</sup> A key issue is whether an employer's contributions to a rainy-day account would be made in addition to or instead of employer contributions to a retirement account.

<sup>18</sup> Highly compensated employees are defined under the tax-qualification rules to include, among others, employees whose annual compensation from the plan sponsor is at least \$125,000 (for 2019, indexed for cost of living).

referred to here as “HCEs” and “NHCEs,” respectively.)<sup>19</sup> Those rules apply to, among other matters, the amounts and available rates of pre-tax, after-tax, and employer matching contributions. Plans generally are required to test for compliance of plan contributions with the nondiscrimination standards. Many plans, however, have instead adopted a “design-based safe harbor” that permits plans to avoid periodic testing of the contributions that are made by instead conforming to a statutorily prescribed plan design requiring specified levels of contributions.

An opportunity for employees to make rainy-day savings contributions could make it easier or harder for a plan to comply with the nondiscrimination rules and therefore would need to be taken into account in formulating a plan’s nondiscrimination compliance strategy. This issue is discussed later with respect to each of the three main options considered in this paper. Compliance with a number of other requirements will also need to be considered.

## ***7. Investment***

A 401(k) plan that uses automatic enrollment must designate a default investment option for contributions made in case employees do not affirmatively elect an investment allocation. Plan sponsors using automatic enrollment commonly select a qualified default investment alternative (QDIA) from among the types permitted under Department of Labor regulations because this choice limits to some degree the plan sponsor’s potential fiduciary liability under ERISA.<sup>20</sup> The most widely used QDIA is a target date or life cycle fund, although many plans use managed accounts and some use balanced funds, both of which are also QDIAs under the Department of Labor regulations.

---

<sup>19</sup> In addition, under pre-ERISA Treasury Regulations, tax-qualified profit sharing plans must provide for distribution of “the funds accumulated under the plan after a fixed number of years, the attainment of a stated age, or upon the prior occurrence of some event such as layoff, illness, disability, retirement, death, or severance of employment.” Treas. Regs. section 1.401-1(b)(1)(ii). For example, in 401(k) plans (which generally are a type of profit-sharing plan), pre-tax elective contributions (which, while elected by employees, are technically considered employer contributions for many purposes) can be distributed upon the occurrence of an event (hardship). The regulations also provide that a profit-sharing plan “is primarily a plan of deferred compensation” but may be used to provide “incidental life or accident or health insurance”. *Id.* This “incidental benefit rule” has been applied to limit the amount of insurance benefits profit-sharing plans can provide, and, while it restricts the types of benefits such plans may provide, it does not prevent them from allowing employee after-tax contributions withdrawable at any time for any reason. Employee after-tax contributions are different from employer contributions or pre-tax elective contributions, and are treated differently for many purposes under the plan qualification rules, including employees’ ability to withdraw them at any time for any reason (if the plan so provides). For this and other reasons, the incidental benefit rule should not, we believe, present a problem where a 401(k) or other qualified plan that is primarily designed and used for retirement saving also allows rainy-day saving through employee after-tax contributions or deemed Roth IRAs that are readily withdrawable (i.e., like hardship withdrawals but not subject to similar restrictions).

<sup>20</sup> 29 CFR section 2550.404c-5.

Whether or not emergency savings contributions are encouraged via automatic enrollment, the short-term nature of the account and the importance of ensuring that funds are readily available in times of need will suggest to many plan sponsors that the account balance should be a known amount that does not fluctuate unexpectedly. Accordingly, in determining how emergency savings should be invested, plan sponsors and their advisors might find a cautious approach appropriate, forgoing potential significant investment gains in the interest of protecting employees from investment losses.

Principal protection funds ordinarily have lower investment management expenses than many investments that involve higher risk and potentially higher returns. Investments emphasizing principal protection also would more likely minimize or avoid the taxable net earnings that otherwise would be recognized when withdrawing from rainy-day savings accounts (described later). In addition to considering the level of costs, plan sponsors will need to consider how to share with employees (if at all) the costs of opening and maintaining a rainy-day savings arrangement in the context of their approach to sharing the administrative and other costs of the qualified plan as a whole.

At the same time, if a plan sponsor uses automatic enrollment to encourage rainy-day savings contributions, it might be concerned about potential fiduciary liability for the default investment and therefore prefer to use a QDIA (for simplicity, potentially the same QDIA the plan uses for pre-tax employee contributions). Under the Labor regulations, QDIAs generally do not include principal-protected investments (other than under a limited, 120-day short-term exception).<sup>21</sup>

On the other hand, it is worth recalling that a considerable number of 401(k) plan sponsors used automatic enrollment with a default investment fund before 2006, when the Department of Labor began issuing regulations defining QDIAs. During that time, the most common default investment was a principal-protected investment (Deloitte 2007). Some employers might bring a

---

<sup>21</sup> 29 CFR 2550.404c-5(e)(4). Some might wish to explore the possibility of persuading the Labor Department that QDIA protection should apply on a theory that, in certain circumstances, a principal-protected investment might be deemed to be aggregated with a conventional QDIA taking into account the totality of plan assets (retirement and rainy-day savings combined). This could produce an effect similar to designing a QDIA with a larger share of fixed income investments. Although the QDIA regulations do not explicitly extend their protection to combinations of fixed income investments with target date or balanced funds or managed accounts, the definitions of target date fund and balanced fund under the QDIA regulations do not prescribe limits on the mix of fixed income and diversified equity exposures or other asset classes.

similar confidence to the choice of a principal-protected fund as the default investment for automatic enrollment in a deemed IRA.

These employers might find an analogy in the Department of Labor's automatic rollover regulations. Those regulations establish a fiduciary safe harbor for ERISA-governed plans that automatically roll over (unless a terminating participant affirmatively elects otherwise) amounts not exceeding \$5,000 to IRAs if "invested in an investment product designed to preserve principal and provide a reasonable rate of return, whether or not such return is guaranteed, consistent with liquidity."<sup>22</sup> The preamble to the regulations stated that the rationale for limiting the safe harbor to principal-protected investments in this case (in contrast to the QDIAs) was that the amounts being invested in these automatic rollover instances are limited to \$5,000. A plan sponsor imposing a similar or lower limit on employee contributions to an emergency savings account might argue that the regulations on automatic rollovers can be viewed as providing indirect support for the use of a principal-protected default investment in this different context, at least so long as emergency account balances are comparably small. However, a \$5,000 or lower limit on emergency savings balances may not be consistent with some plan sponsors' desire to encourage accumulations that could reach higher levels.

In addition, some plan sponsors might conclude that the emergency savings balances and investments would be sufficiently limited, even in the aggregate, that class action litigation seems relatively unlikely and that the plan sponsor's practical liability exposure seems manageable. In weighing these risks based on the limited size of the emergency savings account, however, plan sponsors would need to take into account the potential for repeated withdrawal and replenishment of the account. This would increase the extent to which the account could crowd out pre-tax employee contributions that might otherwise have been made and invested for the long term in potentially higher-return QDIA investments.

Notwithstanding these factors, the fact that Department of Labor regulations have defined QDIAs without including funds that are principal-protected (except for 120 days) might lead most plan sponsors and their counsel to be more cautious than they would have been before 2006. If they are interested in adding emergency savings to their plan, the investment concern might lead some to simply extend their qualified plan's self-directed investment menu to the emergency savings account. To secure QDIA protection for the emergency savings account, some might, as

---

<sup>22</sup> 29 CFR 2550.404a-2(c)(3)(i).

noted above, use the same default investment that they use for pre-tax employee contributions to their qualified plan. On the other hand, plan sponsors might conclude that participants' need for comfort in liquidating the assets in an emergency savings account means that a principal-protected investment is most appropriate, at least as a default. Could the tension between these different views lead some plan sponsors to simply avoid using automatic enrollment altogether with respect to the emergency savings account? So long as a sufficient number of plan sponsors are willing to take one approach or another to these questions and try out an emergency savings account, a diversity of approaches during this preliminary experimental phase could accelerate the process of learning what works best.

Investment decisions for a rainy-day account held in a depository institution are likely to be much simpler. However, depository institution fees may present special issues (discussed later in the section relating to the depository institution approach).

### ***8. Portability***

Tax-qualified 401(k) and other employer-sponsored retirement savings plans suffer from imperfect portability—including preservation, continuity, and consolidation—of benefits. Emergency saving would confront similar challenges. When employment with a plan sponsor terminates, the terminating employee might have a short-term need for cash to help deal with a period of unemployment. This would be the type of rainy-day for which the emergency account was established. But the value of the short-term savings account would be enhanced if an individual who is moving to another job (or who for other reasons does not need the cash on an immediate basis) could preserve the account for future use instead of having it automatically paid out as a lump-sum cash distribution regardless of need. In addition, if multiple job changes leave people with multiple rainy-day accounts, consolidation of those accounts would be helpful for most people. The discussion below considers this portability issue in connection with each of the three alternative rainy-day saving approaches presented here.

### ***9. Target balances***

Two related questions apply to all three types of emergency saving accounts: (i) whether and at what level to set a target account balance and (ii) whether to cap the amount savers can hold in the account if they exceed the target, and if so, what that maximum amount should be. Most

studies of consumers' ability to handle financial emergencies measure a household's ability to pay a specific dollar amount, such as \$400, \$1,000, or \$2,000, which serves as a proxy for a typical expenditure in a minor financial emergency (e.g., car repair, modest home repair, appliance replacement, or a non-catastrophic out-of-pocket health expense). Other normative benchmarks for optimal "rainy-day savings" also include the risk of more severe events, like a spell of unemployment, a major medical expense, or a major uninsured home repair (e.g., property damage from flooding). Typical rules of thumb are expressed as a proportion of annual earnings, such as savings equal to three months of take-home pay.<sup>23</sup>

Based on this range of normative benchmarks, it is likely that most employers would choose a target rainy-day account balance of at least \$2,000. Of course, because households can experience multiple bad shocks in a short period of time, and because even one shock such as unemployment can leave a household needing to replace income for several months, some employers would be more ambitious and would align the target balance with the advice that financial planners tend to give—three or more months of income.

Example:

Assume that a 401(k) plan has automatic enrollment, including automatic enrollment into a rainy-day account. Assume the default contribution rate is 10 percent of pay, with 4 percent of pay allocated to rainy-day contributions and 6 percent of pay allocated to pre-tax 401(k) contributions.

Also assume that all employer matching contributions are allocated to a pre-tax employer contribution account (for reasons discussed below).

Once the long-run accumulation target for the rainy-day account is reached, the default switches to a 10 percent contribution to the pre-tax account and no contribution to the rainy-day account. (The length of time it takes to reach the target would vary from a couple of months to several years depending on employee compensation levels, investment returns, the size and frequency of account withdrawals, and of course the target balance level.)

Under the default, if the rainy-day account balance fell below the target, future contributions equal to 4 percent of pay would be redirected from pre-tax 401(k) contributions to rainy-day contributions.

Participants would be free at any time to opt out of the default contribution system and affirmatively elect to make *additional* rainy-day savings contributions, even if the balance in the rainy-day account exceeded the target, or to make fewer or no rainy-day contributions.

In addition to a rainy-day target, the plan sponsor could decide to impose a cap on rainy-day contributions. Under this approach, contributions to the rainy-day account would be mandatorily redirected (i.e., participants would not be permitted to elect otherwise) to the pre-tax account when the rainy-day account balance reached (or exceeded) a pre-designated cap, which would ideally be expressed as a percentage of annual compensation.

This setup would encourage participants to accumulate a meaningful emergency savings balance while permitting them to accumulate even more rainy-day savings if they preferred to do so.

---

<sup>23</sup> There is very little formal analysis of this quantitative question. However, blogs are rife with advice (e.g., Tierney 2017).

Having a pre-set target balance at which the rainy-day account would stop accumulating incremental savings would help to differentiate it from other types of non-retirement savings and make it more likely that the account is reserved for emergencies and does not displace too much retirement saving. However, setting the target balance too low would limit the account's usefulness, as the balance available would be less likely to be sufficient for many common emergencies (e.g., unemployment spells).

One natural option would be to allow the saver to have a choice of target balances. For example, employees could be automatically enrolled to make emergency savings contributions up to a pre-specified target balance, with the option of affirmatively electing lower or higher contributions up to a different target balance. For different households, these targets would vary substantially. However, based on the range of targets that financial advisors often recommend (as described above), default target balances might typically be set between 10 and 33 percent of income.

Under one possible design, contributions to a rainy-day account with a target balance would stop once that level was reached, and further contributions would be redirected by default to the retirement account (as in the example, above). Redirecting further contributions to the retirement account upon reaching the rainy-day target would increase retirement saving while also keeping the individual's aggregate (retirement plus rainy-day) contribution level the same (or gradually increasing in a predictable pattern) from pay period to pay period. If the rainy-day account balance fell below the target (because of withdrawals or pay increases), it could be replenished from contributions that would otherwise go to the retirement account. Unfortunately, redirecting contributions to maintain a target rainy-day balance is more complex than it sounds even if the 401(k) rules were interpreted to permit advance pre-tax contribution elections of this sort that would automatically turn on, off, and back on, depending on the rainy-day account balance or in some instances on the amount of pre-tax or after-tax (or deemed IRA) contributions previously made. Redirecting the contributions might be operationally complicated, especially if the rainy-day account is subject to different tax treatment than the retirement account or is located at a different provider. Ultimately, 401(k) compliance issues and practical complexities associated with this feature may make it difficult to implement. This design issue potentially applies to all three types of accounts discussed below.



A less complex approach would have the plan or participant designate the contribution flows to the rainy-day account once per year (say during open enrollment), vastly simplifying the contingencies and administrative logistics. This simplification would only modestly change the effectiveness of the rainy-day accounts, but would substantially reduce the variation in rainy-day contribution flows across pay periods.

Unlike the previous eight items on this list, our approach for choosing a target balance is constant across all three types of rainy-day account we discuss in Part B. Therefore we do not revisit this issue in the coming pages.

In Sections III through V below, we describe in detail three specific alternative approaches for structuring a rainy-day savings account: (a) after-tax employee contribution accounts in a 401(k) or similar qualified plan; (b) deemed Roth IRAs under such a plan, and (c) depository institution accounts. Applying the framework outlined in the previous section, we consider the specific features of each alternative and its major advantages and challenges.

#### **IV. After-Tax Employee Contribution Account in a 401(k) Plan**

##### ***Overview***

While the central feature of employer-sponsored 401(k) plans is the opportunity for employees to make pre-tax salary reduction contributions, many plans also permit employees to make so-called “after-tax employee contributions.” Here we are referring to standard “after-tax employee contributions” and *not* Roth 401(k) contributions. (Although Roth 401(k) contributions are also made with after-tax dollars, they generally are not referred to as “after-tax employee contributions” and receive different tax treatment for the earnings on the contributions when withdrawn from the plan.). Unlike pre-tax employee contributions, after-tax employee contributions are not exempted from current taxation.<sup>24</sup> A 401(k) plan could repurpose its after-tax employee contributions account as a rainy-day savings account or could add a new after-tax account for this purpose.

Voluntary after-tax employee contributions were common in the employer-sponsored thrift savings plans that were more prevalent before the advent of the 401(k). Because of the greater tax advantages of pre-tax elective salary reduction 401(k) contributions and Roth 401(k)

---

<sup>24</sup> Earnings on after-tax employee contributions are taxed when they are withdrawn.

contributions,<sup>25</sup> relatively few participants in 401(k) plans make voluntary after-tax employee contributions. However, some plans include after-tax employee contribution accounts for special purposes, such as providing for the possibility of recharacterizing pre-tax salary reduction contributions as after-tax contributions to avert a violation of the 401(k) nondiscrimination rules or limits on pre-tax contributions, or to set up an eventual conversion to a Roth IRA. After-tax contributions, if permitted by the plan, also allow households to save more in a tax-advantaged manner than the annual limits on pre-tax (or Roth) 401(k) contributions (\$19,000 for 2019 plus up to \$6,000 more for those age 50 or older). This is because after-tax contributions are subject only to the annual defined contribution plan limit on all contributions (generally \$56,000 for 2019 plus up to \$6,000 more for those age 50 or older).<sup>26</sup>

After-tax employee contribution accounts offer a range of advantages for emergency savings purposes. In part because their tax treatment differs from that of pre-tax elective accounts and employer contribution accounts, they are already accounted for separately from the other plan accounts. This feature could promote separate “mental accounting” to distinguish longer-term (pre-tax) savings from shorter-term (after-tax) savings. After-tax employee contributions are more liquid because they are exempt from most of the withdrawal restrictions that qualified plans are required to impose on pre-tax elective contribution and employer contribution accounts. In addition, each withdrawal from an after-tax employee contribution account would be largely tax-free and penalty-free. Plan sponsors could use automatic enrollment to encourage employees to make after-tax employee contributions for rainy-day savings. (Employer matching contributions could also be used, but with a significant drawback, as discussed below.) Also, as noted earlier, after-tax employee contributions may be made in an amount up to \$56,000 a year (plus an additional \$6,000 for employees age 50 or older) less any employer contributions and any pre-tax or Roth 401(k) contributions elected by an employee, and employees may make them without regard to any income eligibility limits.

These accounts also have drawbacks, however. While much or most of each withdrawal would be tax-free and penalty-free, *earnings* on these accounts would be taxable and subject to the

---

<sup>25</sup> Earnings on the Roth 401(k) (or Roth IRA) contributions are not only tax-deferred but also become tax-free if withdrawn at least five years after the year of the participant’s first Roth contribution and after the participant has reached age 59½ (or has died, become disabled, or used up to \$10,000 to help purchase a new home).

<sup>26</sup> In addition, the combination of employee-elected pre-tax and Roth contributions, employee after-tax contributions, and employer contributions cannot exceed 100 percent of employee compensation.

10 percent early withdrawal penalty and 20 percent tax withholding. This feature would, to some degree, complicate communications to employees and administration of the arrangement, although there might be ways to avoid taxable earnings. Other potential concerns for plan sponsors would include a possible required six-month suspension of contributions following withdrawal of after-tax employee contributions that were matched by the employer, questions about the feasibility and practicality of automatic enrollment, operational delays in disbursing emergency funds, and perhaps questions about how best to avoid or minimize potential ERISA fiduciary liability regarding the choice of investments.

### *1. Liquidity*

For emergency savings purposes, after-tax employee contribution accounts enjoy a singular advantage: unlike pre-tax 401(k) salary reduction contributions or employer contributions, after-tax employee contributions generally are free of withdrawal restrictions under the 401(k) or other qualified plan rules.<sup>27</sup> Therefore, plans can allow employees to withdraw from after-tax employee contribution accounts for any reason and at any time without having to incur a financial hardship or meet other conditions (except for the possible six-month suspension of contributions after withdrawing matched after-tax employee contributions). This should enable plans to provide the liquidity needed for emergency savings if they can operationally deliver the cash quickly enough. After-tax employee contribution accounts have not traditionally been designed or offered for the purpose of allowing rapid and potentially frequent disbursements. (This applies to qualified plan accounts generally.) If a qualified plan is to respond promptly and efficiently to emergency withdrawal requests, it may need to make changes to recordkeeping and plan operations as well as payroll systems. How much of a deterrent this would be to adoption of an emergency withdrawal account is likely to depend on the plan-specific operational factors and the costs of the specific provider.

Part of the challenge of gearing up a qualified plan to include a promptly accessible emergency savings account is to restrict rapid access to the emergency account only, and not allow it to spread to pre-tax or employer contribution accounts that are intended as long-term and therefore relatively illiquid retirement savings. In fact, this concern largely explains why members of Congress and other policy makers have periodically recoiled at proposals by vendors to allow

---

<sup>27</sup> IRC section 401(k)(2)(B).

401(k) accounts to be accessed by credit card. The concerns related largely to the risk of encouraging or at least facilitating “leakage”—the misuse of retirement savings for immediate consumption as if the 401(k) were a transaction account. As discussed, however, one purpose of introducing emergency savings accounts is to protect retirement savings from leakage on the theory that separate mental (and actual) accounting could help re-channel and concentrate in a dedicated emergency savings account the occasional propensity to spend available 401(k) retirement savings on pre-retirement needs.

## **2. Tax treatment**

As noted, employee contributions to after-tax accounts are taxed when earned as salary or wages; they are not tax deductible or excludable from income when contributed. This is the case even if the contributions are made by payroll deduction; the deduction from pay is a mechanical method of moving funds out of take-home pay and into a plan account but is not deemed to reduce the amount of taxable salary or wages.<sup>28</sup> Earnings on after-tax employee contributions, like earnings on pre-tax contributions, are not taxable as they accumulate; they are taxed only when withdrawn from the plan. Previous employee contributions can be withdrawn tax-free because they were taxed when contributed.

Amounts withdrawn from after-tax employee contribution accounts are treated as consisting of both a nontaxable distribution of employee contributions and a taxable distribution of earnings on those contributions. The withdrawal of the *earnings* is taxable at ordinary income tax rates and is also likely to be subject to both a 10 percent early withdrawal penalty and 20 percent tax withholding. Each withdrawal is allocated between nontaxable contributions and taxable earnings in proportion to the cumulative amounts of those contributions and earnings held in the after-tax account as a whole.<sup>29</sup> Therefore, unless there are no earnings, any withdrawal from after-tax employee contribution accounts will be partially taxable.

---

<sup>28</sup> For simplicity, amounts includable or excludable from gross income for tax purposes are often referred to here as taxable or nontaxable (or tax-free) even though their ultimate tax treatment would depend on the individual’s tax-related circumstances.

<sup>29</sup> In calculating this allocation, contributions and earnings in the employee’s plan accounts outside of the after-tax employee contributions account are not considered. See IRC section 72(e)(8) and (d)(2).

Depending on when emergency withdrawals are made and on investment experience, earnings may constitute only a small fraction of account balances. Nevertheless, account holders would need to be informed about the tax consequences of withdrawals in advance.

An emergency savings account with a sufficiently modest target balance might never experience earnings net of administrative expenses. Of course, strategies to avoid net earnings in the rainy-day savings account by imposing increased expenses, reallocating to the account expenses associated with other accounts, or suppressing earnings would draw criticism and raise concerns about propriety, ERISA fiduciary liability exposure, and the risk of attracting litigation.<sup>30</sup> However, true expenses properly allocable to the rainy-day savings account might exceed earnings on an appropriate investment in a plan that provided for (i) a relatively modest target balance for the account that could serve as a maximum limit, and (ii) investment of the account in a principal-protected instrument (such as a money market fund).<sup>31</sup> For example, if the target (and maximum permitted) account balance were \$2,500 and account expenses were \$50 per year,<sup>32</sup> net positive earnings would not occur unless annual returns exceeded 2 percent.

Depending in part on its general policy on sharing of plan expenses, a plan sponsor also might consider protecting participants from any diminution of their account balances by bearing any expenses that exceed earnings. (A plan sponsor willingness to do this might depend on its general policy and approach toward sharing of plan administrative expenses.)

---

<sup>30</sup> A relatively low cap on the emergency savings account balance presumably would have the incidental effect of reducing the risk of litigation and criticism for selecting an unduly conservative investment that failed to realize the returns of the plan's QDIA. Even in a plan with a large number of participants who had emergency savings accounts, the forgone earnings attributable to the principal-protected investment might be small enough in the aggregate to make class action litigation to recover this amount less attractive to the plaintiffs' bar than other litigation alternatives. However, where emergency savings are capped but are replenished after withdrawals, estimates of the higher earnings that are forgone because they are crowded out by principal-protected, low-return investments should take into account those replenishment contributions.

<sup>31</sup> If, by contrast, the plan invested the rainy-day account in a QDIA, there would be less prospect that appropriate expenses would consistently exceed earnings over time.

<sup>32</sup> This assumption about the possible level of expenses is for purposes of illustration only; it is not intended to imply any estimate of the likely range of administrative or investment management expenses associated with a rainy-day savings account of this sort. That the after-tax employee contributions account might already exist in the plan might be a factor that reduces cost, but the need to administer potentially frequent withdrawals would cut the other way. Reduced hardship withdrawals or loans might offset some of the cost, although this might initially be viewed as an unproven effect.

### ***3. Mental accounting***

Using after-tax employee contribution accounts to hold emergency savings in a 401(k) plan could facilitate separate “mental accounting” of the emergency savings by employees. After-tax employee contribution accounts have long been accounted for separately from the other types of retirement plan accounts because, as described earlier, their qualified plan rules and tax treatment differ from those governing other types of accounts. In fact, elective pre-tax, employee after-tax, and employer contribution accounts are sometimes referred to informally as “separate buckets.” Accordingly, the attempt to encourage separate mental accounting of short-term from long-term savings would be reinforced by actual separate accounting under the plan’s recordkeeping system and other tangible differences.

### ***4. Automatic enrollment***

Plans that use automatic enrollment typically apply it only to pre-tax salary reduction contributions and not to after-tax employee contributions. However, a plan sponsor that used an after-tax employee contribution account as a rainy-day savings account would have good reason to consider the possibility of encouraging participation by automatically enrolling employees in that account up to a target amount set by the plan sponsor and the employee. Several considerations would bear on that decision.

A threshold question is whether automatic enrollment in after-tax employee contributions is permissible under the rules governing tax-qualified plans. Treasury and the IRS have not issued explicit guidance on this point, but we are aware of nothing that explicitly prevents automatic enrollment in after-tax employee contributions, and such automatic enrollment is consistent with the basic rationale that under automatic enrollment employees are still electing (passively or affirmatively) whether or not a contribution will be made on their behalf. In addition, one of the seminal Treasury/IRS rulings making clear that automatic enrollment in pre-tax employee contributions is permissible includes language implying that automatic enrollment could apply also to after-tax employee contributions.<sup>33</sup> Accordingly, for purposes of this discussion, we assume

---

<sup>33</sup> See Treas. Reg. section 1.401(k)-1(a)(2)(ii); Rev. Rul. 2000-8, 2000-1 C.B. 617 (indirectly referring to automatic enrollment in after-tax employee contributions: “If plan A were to permit after-tax contributions then the amounts contributed to the plan would have to be designated or treated, at the time of the contribution, as pre-tax compensation reduction contributions or after-tax employee contributions.”). Cf. Treas. Reg. section 1.401(k)-1(a)(3)(ii). Other revenue rulings permit automatic enrollment in section 403(b) plans (Revenue Ruling 2000-35, 2000-2 C.B. 138), section 457 plans (Revenue Ruling 2000-33, 2000-2 C.B. 142) and SIMPLE-IRA plans (Revenue Rulings 2009-66,

that qualified plans can automatically enroll employees in after-tax employee contributions. It would follow that such automatic enrollment, like automatic enrollment in pre-tax elective salary reduction contributions in an ERISA-governed plan, should benefit from ERISA preemption of any state payroll and anti-garnishment laws that might otherwise be interpreted as prohibiting such automatic enrollment.

A second threshold issue relates to whether the plan already uses (or, if not, is willing to use) automatic enrollment with respect to pre-tax elective contributions. While many believe there is a strong case for the use of automatic enrollment in 401(k) plans,<sup>34</sup> a plan sponsor that has chosen not to adopt automatic enrollment for pre-tax contributions might think there is less reason to automatically enroll employees in contributions that are less tax-advantaged. Some such sponsors might also wonder whether the use of automatic enrollment for emergency savings but not retirement savings could be misinterpreted as a message that encourages employees to contribute on a less tax-advantaged basis (after-tax instead of pre-tax), potentially exposing the plan sponsor to criticism and litigation. In addition, if auto-enrollment in after-tax rainy-day saving ultimately crowded out an undue proportion of pre-tax saving by non-highly compensated employees because they used the plan only or mainly for emergency saving, this might adversely affect nondiscrimination compliance. On the other hand, some plan sponsors might view emergency saving as an even more basic need than retirement savings and might also feel more comfortable automatically enrolling employees in an emergency saving account because the account would be more liquid than the pre-tax account and the amount would be more limited.

Plan sponsors and record keepers that already use automatic enrollment for pre-tax elective contributions and are considering adding automatic enrollment for emergency savings after-tax employee contributions would need to engage in a similar balancing analysis. Would the take-up of emergency savings suffer unduly if automatic enrollment were used only for retirement savings? The appropriate mix and coordination of plan design features could include automatic enrollment in pre-tax and after-tax employee contributions that is either sequential or simultaneous (“split

---

2009-67). A question could be raised regarding the significance of the fact that after-tax employee contributions are less tax-favored than the pre-tax 401(k), 403(b), 457, and SIMPLE-IRA contributions explicitly addressed in the rulings and that no comparable ruling explicitly applies to after-tax contributions. Arguably, this is because to date there has been less reason for the question to arise, given that after-tax employee contributions, while tax-favored, are less tax-favored than those other contributions, and perhaps because Rev. Rul. 2000-8 is seen as already indirectly indicating that automatic enrollment in after-tax contributions is permissible.

<sup>34</sup> E.g. Gale, Iwry, John, and Walker (2009).

stream”),<sup>35</sup> employer matching contributions, and specification of a desired emergency savings target (expressed as a percentage of pay or, especially in the case of rainy-day savings, in dollars) and liquidity provisions, as discussed in other portions of this paper.

The instruments available for striking an optimal balance among the various considerations might also include “active choice”—requiring employees to affirmatively signal their decision whether or not to contribute to the rainy-day account—as a middle-ground alternative to automatic enrollment in emergency savings.

Another key issue would be the operational feasibility of implementing automatic enrollment in after-tax employee contributions. While almost all providers offer automatic enrollment, some have expressed concern about their ability to automatically enroll into two accounts that have different tax treatments. This would involve technical and employee communication issues relating to coordination of automatic enrollment in pre-tax and after-tax contributions, including the costs and perhaps delays involved in making the necessary operational and record keeping systems changes. Even more complicated to implement would be a provision that automatically resumed rainy-day savings contributions for an employee if and when withdrawals reduced the employee’s rainy-day savings account balance below a specified level. Such replenishment has obvious appeal from a policy standpoint. However, periodically turning after-tax automatic enrollment on and off while making the corresponding offsetting adjustments to pre-tax contribution rates might prove difficult for plan sponsors or record keepers to administer without undue risk of administrative errors, delays, or added costs.

In somewhat analogous circumstances, plan sponsors and their providers who are considering the use of automatic enrollment with automatic escalation of pre-tax contributions have periodically expressed concerns about the increased risk of administrative errors—failure to make the correct contribution for each employee at the correct time—and the need to correct such errors. To address such concerns, Treasury and the IRS have provided a more forgiving administrative correction regime for plans that use automatic enrollment and automatic escalation for pre-tax and Roth 401(k) contributions.<sup>36</sup> This could readily be extended to apply to automatic enrollment in rainy-day savings.

---

<sup>35</sup>Assuming automatic enrollment in after-tax employee contributions is permissible and operationally feasible, nothing appears to prevent a plan from automatically enrolling employees simultaneously, rather than only sequentially, in after-tax and pre-tax contributions.

<sup>36</sup> IRS Revenue Procedure 2015-28.



## ***5. Employer matching contributions***

A plan sponsor that wished to encourage employees to use after-tax employee contributions for emergency saving could match those contributions.<sup>37</sup> These matching contributions normally would be credited to an employer contribution account under the qualified plan.

Given the more favorable tax treatment of pre-tax contributions relative to after-tax contributions, however, as well as many plan sponsors' presumed preference for longer-term savings, some might prefer to provide a less generous match (or no match) for after-tax contributions. Such sponsors might view a less generous match as a signal to employees regarding the relative priority of the emergency contributions compared to retirement contributions. It appears that plan sponsors should be able to provide a less generous match for after-tax contributions as long as this did not lead to a violation of the nondiscrimination rules that apply to the contribution amounts and to the available rates of pre-tax, after-tax, and employer matching contributions. For example, a plan that has adopted a "design-based safe harbor" to avoid nondiscrimination testing must have an employer matching formula that satisfies specified conditions.

Other sponsors might prefer the simplicity of using the same matching formula for both after-tax and pre-tax contributions, especially if accompanied by a relatively low account balance ceiling on the after-tax contributions. For example, the match could be calculated using the *sum* of the employee contributions to the pre-tax and after-tax accounts. A plan sponsor could use this approach if it wished to avoid increasing the cost of its total employer matching contributions by spreading the existing match across both types of employee contributions. Treating the two accounts symmetrically might also reflect a concern that a less generous matching formula for emergency saving than for retirement saving could lead too many employees to opt out of the former in favor of the latter.

---

<sup>37</sup> Matches of after-tax employee contributions are permissible. See, e.g., IRC section 401(m)(4)(A)(i); Treas. Regs. section 1.401(m)-1(a)(2)(i)(A). These employer contributions would not violate the 401(k) "contingent benefit rule" because that rule prohibits making any benefits (except for employer matching contributions) contingent on an employee making or refraining from making elective pre-tax 401(k) contributions. See Treas. Regs. Section 401(k)-1(e)(6). In this case, the employer contributions would be contingent on employee after-tax contributions. This need not increase the total amount of employer matching contributions; potentially a modest amount of an existing employer match could be reallocated to match emergency savings contributions.

An issue plan sponsors would need to weigh—and a potential impediment to employer matching of after-tax employee contributions—arises from a longstanding concern that employees might manipulate matching contributions. Without appropriate constraints, an employee could game the system by “churning” matched employee contributions—making them chiefly to earn an employer match and then withdrawing them as soon as possible rather than keeping them in the account until needed for the intended emergency purposes. A plan sponsor might need to consider whether other kinds of plan-specific restrictions might be advisable to prevent or discourage such manipulation without defeating the basic liquidity purpose of the emergency savings account.

As noted earlier, the regulatory 401(k) safe harbor for permitting hardship withdrawals previously addressed a risk of manipulation in the case of withdrawals of pre-tax employee contributions. If an employee made a hardship withdrawal of those contributions, 401(k) plans were required to impose a six-month suspension of the employee’s ability to make additional contributions (thus also suspending the employee’s receipt of any related employer matching contributions), although the six-month suspension was recently repealed for hardship withdrawals from *pre-tax* 401(k) accounts. If after-tax employee contributions were matched by employer contributions, IRS rulings dating back to the 1970s would require the plan to impose some substantial limitation on participants’ ability to withdraw their employee after-tax contributions, such as a six-month suspension of employee and employer contributions in the event of such a withdrawal.<sup>38</sup> While some might view this as an appropriate kind of friction designed to encourage employees to think twice before accessing their rainy-day savings, many would not, and it could complicate a plan sponsor’s emergency savings account strategy by interrupting the automatic flow of contributions designed to gradually replenish the emergency savings account.

Treasury and IRS, in future guidance, could reasonably treat other forms of limitation (potentially including forfeiture of a portion of the employer match upon withdrawal of employee after-tax contributions or other limitations on the match) as acceptable substitutes for such a suspension. In the meantime, plan sponsors that are unwilling to impose a six-month suspension of employees’ ability to contribute following emergency withdrawals of after-tax employee contributions might consider whether other limitations would be desirable and permissible under

---

<sup>38</sup>Compare the recently amended Treas. Regs. §1.401(k)-1(d)(3)(iv)(E) (which, until recently, required a plan that seeks to satisfy the “safe harbor” hardship rules to suspend for at least six months after the hardship withdrawal the employee’s ability to make pre-tax and after-tax employee contributions to the plan and other plans maintained by the employer) to Revenue Rulings 74-55, 74-56.

current rules. However, plan sponsors are likely to be unwilling to proceed with an alternative to the six-month-suspension policy without clear regulatory guidance or legislative reform. One of the authors has requested that Treasury issue guidance either declaring obsolete the six-month-suspension rule for withdrawals of matched after-tax employee contributions (paralleling its elimination for hardship withdrawals from pre-tax 401(k) accounts) or specifying alternative practical limitations plan sponsors could impose to prevent manipulation in lieu of the six-month suspension.<sup>39</sup>

Pending any new regulatory guidance and/or new legislation, we believe that there is a way for employers to move forward in the current regulatory regime. Note that firms without a match on their after-tax 401(k) are not affected by the contribution-suspension regulations. With this consideration in mind, employers could concentrate all matching on their pre-tax 401(k) account. However, that approach could beget the perverse result in which an employee “lost” matching dollars because she was contributing to the after-tax account without maxing out her matched contributions to the pre-tax account. Setting a default contribution to the pre-tax account that maxes out the matching dollars avoids this problem. In this situation, contributions to the after-tax (rainy-day) account would not crowd out matching dollars unless the participant affirmatively elected to override the default.

As another possible design alternative, 401(k) plans that provide an employer match only after employees have been employed for a year might automatically enroll newly hired employees in rainy-day after-tax employee contributions without an employer match for their first year of employment. For average earners, this might establish something like \$2,000 of rainy-day “seed money” to introduce employees to the value of rainy-day saving; and the rainy-day after-tax employee contributions could be invested in a “safe” principal-protected fund (a reasonable choice for highly liquid savings) that might also introduce new savers to saving in general without exposing them to an initial risk of loss.

---

<sup>39</sup> The preamble to recently issued final regulations regarding the repeal of the six-month suspension requirement for 401(k) hardship withdrawals declined to resolve the question of whether the 1970s revenue rulings (requiring a “substantial limitation” such as a six-month suspension of contributions following withdrawal of matched employee after-tax contributions) are still applicable. The preamble made clear only that the final regulations would not permit such a suspension if matched employee after-tax contributions were distributed in conjunction with a hardship distribution of elective contributions. 84 Fed. Reg. 49651, 49655, including note 3. When it directed the repeal of the six-month suspension following hardship withdrawals, Congress did not signal a concern about or need to manage any risk of manipulation associated with hardship withdrawals of matched pre-tax contributions, even though a majority of 401(k) plans offer employer matching contributions.

Finally, it might also be possible for a plan sponsor to make an employer match of after-tax employee contributions in the form of a taxable cash payment deposited into a rainy-day savings account in a bank or credit union. Such an employer payment would violate the “contingent benefit rule” (discussed above) if it matched employees’ elective 401(k) contributions (and probably designated Roth 401(k) employee contributions), but the rule does not apply to matching of after-tax employee contributions (or of employee savings outside of a qualified plan as described in Section VI).

This approach would bring several advantages. Rainy-day savings accounts funded by employer matching payments outside the plan and employee after-tax contributions inside the plan could accumulate a target balance more quickly than an account funded only by employee after-tax contributions. The taxable account outside the plan could be highly liquid like the depository institution options described in Section VI—exempt from the qualified plan rules, including the withdrawal restrictions applicable to employer matching contributions, the hardship withdrawal restrictions, and the 10 percent penalty on early withdrawals. In addition, the after-tax employee contributions account in the plan should be exempt from any requirement to impose a six-month contribution suspension or other “substantial limitation” on participants’ ability to withdraw from that account on the theory that an employer’s taxable cash payment should not be considered a match of those contributions within the meaning of the pertinent revenue rulings. However, the disadvantages would include immediate taxation to employees of the employer payments and the fact that employees would have one portion of their rainy day savings inside the plan (funded by employee after-tax contributions) and another portion outside the plan (funded by the taxable employer matching payments).

## ***6. Compliance***

Greater proportionate utilization by NHCEs than HCEs of after-tax employee contributions for emergency savings would tend to assist a plan in complying with the nondiscrimination test for those types of contributions (the “actual contribution percentage” or “ACP” test). Conversely, compliance would be harder if HCEs were to make disproportionate use of after-tax contributions as a result of the plan’s addition of an emergency savings account. A plan sponsor could avert this risk by limiting eligibility for the after-tax emergency savings account to NHCEs. The nondiscrimination rules for qualified plans generally permit this kind of more favorable treatment

of NHCEs. Of course, HCEs might be unhappy about being denied the emergency savings account option, even though the plan sponsor might conclude that excluding them is justified because they are better able to provide for themselves in saving for emergencies. One possible means of addressing both the nondiscrimination risk and the possible employee relations issue might be to automatically enroll the NHCEs only, while making the emergency savings account available to HCEs if they choose to affirmatively enroll. However, we speculate that such differential treatment of employees (based on something as arbitrary as the HCE threshold) might not be well-received by the employees themselves.

There is, however, another potential discrimination issue that this approach would not address. The availability of the after-tax emergency savings account to NHCEs might reduce their pre-tax elective retirement plan contributions. This would make it harder for the plan to satisfy the separate nondiscrimination standards relating to pre-tax contributions (the “actual deferral percentage” or “ADP” test). Plan sponsors considering emergency savings arrangements would be well advised to monitor potential indirect effects such as these. Should such effects arise, there are other means of mitigating or managing them (such as making additional employer contributions for NHCEs or returning to HCEs some of their contributions)<sup>40</sup>

## ***7. Investment***

A rainy-day savings account is designed to be liquid—available broadly for immediate needs. Accordingly, a principal-protected investment seems to be a natural choice. While hardship withdrawals are made from pre-tax elective contributions that are often invested in funds that involve some investment risk, volatility in a rainy-day account might produce an adverse participant experience and could be seen as inconsistent with the intended purposes of the account. Department of Labor guidance under the Employee Retirement Income Security Act (ERISA) recognizes that the need for liquidity in particular instances could be taken into account in formulating and justifying certain retirement plan investment policies.

---

<sup>40</sup> In addition, plans using a design-based nondiscrimination safe harbor—which imposes, among other things, constraints on employer matching contributions or other employer contributions—would need to ensure that nothing about the addition of rainy-day savings contributions would cause the plan to run afoul of the safe harbor requirements. Ordinarily, this should not be a problem.

## **8. Portability**

A 401(k) plan sponsor can close a terminating employee's account and compel a cash distribution if the employee's balances do not exceed \$1,000. If the balances exceed \$1,000, terminating employees have the right to retain them in the previous employer's plan, but if employees fail to give any direction, then balances between \$1,000 and \$5,000 can, at the employer's discretion, be kept in the plan or rolled over to an IRA for the employee. In some circumstances, a terminating employee might have a short-term need for cash to help deal with a period of unemployment. This would be the type of rainy day for which emergency accounts were established. But the value of the rainy-day savings account would be enhanced if an individual who does not need the cash on an immediate basis could preserve the account for future use instead of having it automatically paid out as a lump-sum cash distribution regardless of need.<sup>41</sup>

A separating employee who has an after-tax employee contribution account balance could transfer or roll it over (directly or indirectly within 60 days) tax-free to another employer-sponsored plan that accepts such transfers or rollovers and accounts separately for the after-tax employee contributions it receives..<sup>42</sup> If the new plan sponsor does not have a rainy-day savings arrangement, what are the employee's options?

If the new employer accepts after-tax rollovers, the newly hired participant could employ self-help to use the new after-tax employee contributions account for rainy-day saving. Even without the benefit of a plan-provided framework to facilitate rainy-day saving, employees could still use the flexibility to make withdrawals from after-tax employee contribution accounts to meet their emergency needs (subject to any additional restrictions the plan might impose).

What if the new employer does not accept a rollover of after-tax employee contributions to its plan? The employee could roll over the qualified plan rainy-day savings account to a Roth IRA. This would effectively convert after-tax employee contributions into Roth IRA contributions held in a stand-alone Roth IRA (as opposed to a deemed or sidecar Roth IRA of the type discussed in subsection IV below). The stand-alone Roth IRA would be separate from any employer or employer-sponsored plan and could serve as a portable rainy-day savings account without the

---

<sup>41</sup> Some research suggests that balances of less than \$1,000 are extremely likely to be disbursed as a compelled cash distribution (Beshears et al. 2018b), and individuals are likely to spend small compelled cash distributions rather than retain them as savings by redepositing into an alternative savings account (Poterba, Venti, and Wise 1998). The rules governing distributions from qualified plans based on balances greater or less than \$1,000 or \$5,000 do not apply to distributions from deemed IRAs. See Treas. Reg. section 1.408(q)-1(c), (e)(1), (f)(5).

<sup>42</sup> IRS Notice 2014-54.

benefit of employer facilitation. The new IRA owner could make periodic withdrawals without regard to hardship withdrawal rules or employment status. In addition, any such individual whose household income did not exceed the Roth IRA income eligibility limits could contribute to the Roth IRA to add to or replenish its balance.<sup>43</sup>

If interested, IRA providers could invite such rollovers to Roth IRAs as a means of perpetuating rainy-day savings and making it more portable. They also could facilitate use of the Roth IRA for rainy-day savings. For example, the Roth IRA provider might assist the IRA owner in dividing the IRA account into separate rainy-day and long-term subaccounts to promote separate mental (and actual) accounting. One possibility would be to earmark the portion of the Roth IRA balance consisting of contributions as partially dedicated to rainy-day savings (up to a designated dollar amount) while treating the rest of the contributions and all of the earnings portion as retirement savings. This could be another avenue for the spread of rainy-day saving; however, it would be important to avoid undermining the overall long-term character of Roth IRAs (and, for that matter, IRAs generally). The labeling and framing of IRAs as individual “retirement” accounts and the 10 percent additional tax on most types of early withdrawals (of earnings in the case of Roth IRAs) presumably have encouraged IRA owners to view IRAs as intended for retirement and other long-term purposes, thereby reducing leakage of retirement savings.

---

<sup>43</sup> Those with higher incomes can still make nondeductible contributions to a traditional IRA, withdrawals from which would be taxed similarly to after-tax employee contributions in a qualified plan. Also, under current law, there are strategies (involving taxable conversions from non-Roth to Roth amounts) that enable circumvention of the income limits and dollar limits on Roth IRA contributions (the so-called “backdoor” Roth IRA). Because conversions to Roth IRAs, by contrast to other contributions to Roth IRAs, are not subject to income eligibility limits, the “backdoor” Roth IRA strategy permits an individual whose family income exceeds the Roth IRA income eligibility limits to make after-tax contributions (which are not subject to any IRA income eligibility limits) to a traditional IRA and then convert it to a Roth IRA. However, the “backdoor” Roth IRA strategy is not without its challenges.

First, withdrawals of converted contributions within five years after the conversion generally will be subject to the 10 percent penalty on premature withdrawals. See, e.g., Treas. Reg. section 1.408A-6, A-5(b), (c) (distinguishing between the five-year rule for tax-free treatment of withdrawals of Roth investment earnings and the different five-year rule for exemption from the 10 percent penalty on premature withdrawals of converted contributions).

In addition, some have been concerned that the “step transaction” doctrine would collapse the after-tax contribution to a traditional IRA and the conversion of that IRA to a Roth IRA and treat them as one transaction in substance, thereby potentially violating the income limits on Roth contributions. To reduce this risk (which appears to be small), some make sure that some minimum time period has elapsed between the two steps (contribution and conversion).

Another potential complication is that, if the owner also owns a traditional IRA that holds pretax (previously deducted) contributions, a special pro rata IRA aggregation rule would treat all of the owner’s IRAs as aggregated for tax purposes, and would deem a pro rata portion of the pretax amounts to be converted to the Roth IRA together with the after-tax amounts, which would generate a taxable event upon conversion. This could be solved by rolling the traditional IRA amounts into a qualified plan if the individual participates in one that will accept such a rollover.

## **V. Deemed Roth IRA under 401(k) Plan**

### *Overview*

One of the main drawbacks of using an employer plan's after-tax employee contribution account as a rainy-day savings vehicle is that the *earnings* portion of each withdrawal from such accounts is taxed and subject to an early withdrawal penalty. In this subsection, we consider the possibility of facilitating rainy-day saving by automatically enrolling employees in Roth 401(k) accounts, in deemed IRAs, and in a combination of the two (deemed Roth IRAs).

Roth 401(k) accounts, like Roth IRAs, can be used to augment pre-tax 401(k) accounts or traditional IRAs and help savers achieve greater risk diversification with respect to the tax treatment of their future withdrawals. However, while many 401(k) plans permit Roth 401(k) contributions in addition to pre-tax employee contributions (and, in many cases, after-tax employee contributions), very few auto-enroll employees into Roth 401(k) accounts.<sup>44</sup> In any event, in view of the applicable withdrawal rules, Roth 401(k) accounts are not a good fit for rainy-day saving. Unlike the after-tax employee contribution account, a Roth 401(k) account generally is subject to the same restrictions on withdrawals during employment as a pre-tax 401(k) account (including the hardship rules). In addition, amounts withdrawn from Roth 401(k) accounts are pro-rated between a return of contributions and earnings (like withdrawals from after-tax employee contribution accounts). The earnings portion of the withdrawal is taxable unless the withdrawal occurs at least five years after the account was established and after the account owner has reached age 59½ (or upon death or disability or qualified first-time home purchase). We therefore do not pursue other issues that would arise in connection with the use of a Roth 401(k) for rainy-day saving.

Both of these drawbacks could be addressed by another approach. Qualified plans are permitted to let employees make voluntary contributions to an account under the plan that can be treated in the same way as an IRA if it satisfies specified requirements. This type of account associated with an employer plan is called a “deemed IRA.”<sup>45,46</sup> Accordingly, a rainy-day savings

---

<sup>44</sup> While we are not aware of a statute, regulation, or other administrative guidance explicitly providing that automatic enrollment is permitted to apply to Roth 401(k) contributions under a qualified plan without causing a change in the character of those contributions (for example, causing them to be treated as pre-tax contributions), we know of no good reason why auto-enrollment into Roth 401(k) contributions should not be permissible. See Dold (2002).

<sup>45</sup> This type of account is also sometimes referred to in the qualified plan context as a “sidecar IRA.”

<sup>46</sup> Treas. Regs. section 1.408(q)-1(a).



account could be incorporated into a 401(k) or other qualified plan by establishing a deemed Roth IRA.

A deemed IRA, which can be either traditional or Roth, is established under a qualified plan but is generally treated as a separate entity from the qualified plan. For the most part, the deemed IRA and contributions made to it are subject to the rules governing IRAs, including the general annual contribution limit of \$6,000 (\$7,000 if age 50 or older) for 2019.<sup>47</sup>

A deemed IRA could promote separate mental accounting to help wall off long-term from short-term savings because it would be formally accounted for separately from other plan-related accounts and, as an IRA, would be different in kind from the other accounts. In addition, deemed IRAs, like after-tax employee contribution accounts, are more liquid than pre-tax elective 401(k) or employer contribution accounts under qualified plans because IRAs are not subject to the basic withdrawal restrictions imposed on those accounts.

Another key advantage is that withdrawals from deemed Roth IRAs benefit from more favorable tax treatment. Like after-tax employee contributions, Roth IRA contributions are made on an after-tax basis and therefore are tax-free when withdrawn; but, unlike withdrawals from after-tax employee contribution accounts, no portion of a deemed Roth IRA withdrawal is taxable until all the employee's contributions have been withdrawn tax-free and penalty-free. Only after all the employee contributions have been withdrawn are withdrawals treated as consisting of earnings, which generally are taxable unless they meet the Roth 5-year and age 59½ (or death, disability, or qualified first-time home purchase) conditions.<sup>48</sup> For an individual withdrawing from a deemed Roth IRA after age 59½ and after five years have passed since the account's establishment, the tax-free treatment of withdrawn earnings is another advantage over after-tax employee contribution accounts. Also, as in the case of after-tax contributions, plan sponsors could use automatic enrollment to help fund deemed Roth IRA emergency savings accounts. (An employer match to give employees an additional incentive to contribute to these accounts could be considered, but might well prove impractical.)

Deemed Roth IRAs also have drawbacks. Net earnings withdrawn before age 59½ or before the account has been open for five years are generally taxable and often subject to the 10

---

<sup>47</sup> Treas. Regs. section 1.408(q)-1(a), (b), (c).

<sup>48</sup> As in the case of after-tax employee contributions, it might be possible to simplify administration and communications if there were an appropriate way to avoid net earnings.

percent early withdrawal penalty. As in the case of after-tax employee contributions, the use of deemed Roth IRA contributions to fund an emergency savings account would raise questions about the feasibility and practicality of employer contributions matching employees' deemed IRA contributions (including managing the risk of manipulation of the match), how to efficiently reduce operational delays in disbursing emergency funds (potentially more of a problem for IRAs than qualified plan accounts), how to avoid or minimize potential ERISA fiduciary liability regarding the choice of default investment, and how automatic enrollment would work. In addition, unlike after-tax employee contributions, only employees whose incomes do not exceed \$203,000 (if married and filing taxes jointly) or \$137,000 (if unmarried) are permitted to contribute to a Roth IRA (deemed or otherwise) in 2019,<sup>49</sup> and the annual IRA contribution limit of \$6,000 (\$7,000 for those aged 50 or older) applies.

### *1. Liquidity*

For purposes of emergency savings, a deemed IRA has a particular advantage in terms of liquidity. This stems from the hybrid character of a deemed IRA: treated as part of a qualified employer-sponsored plan for some purposes but as an IRA for most purposes. Withdrawals from a deemed IRA can be made at any time and for any purpose. This liquidity advantage should facilitate emergency savings if the plan can deliver cash promptly enough to meet participants' needs for emergency withdrawals.

Like after-tax employee contribution accounts, IRAs (including deemed IRAs) have not ordinarily been designed to allow rapid and potentially frequent disbursements. Issues regarding operational feasibility, costs, and potential delays involved in changing recordkeeping and payroll systems to enable after-tax employee contribution accounts to respond promptly and efficiently to emergency withdrawal requests apply to deemed Roth IRAs as well—as does our earlier discussion (in subsection II.1) of the importance of limiting this quick access to the emergency account.

---

<sup>49</sup> Those with higher incomes can still make nondeductible contributions to a traditional IRA, withdrawals from which would be taxed similarly to after-tax employee contributions in a qualified plan. Also, under current law, the “backdoor Roth IRA” strategy might enable circumvention of the income and dollar limits on Roth IRA contributions. See note 42, above.

## ***2. Tax treatment***

The tax treatment of deemed Roth IRAs gives them another advantage for emergency savings purposes. Like Roth 401(k) accounts, earnings withdrawn from a deemed Roth IRA are taxable unless the withdrawal occurs after the individual has reached age 59½ (or after death, disability, or qualified first-time home purchase) and more than five years after the first Roth contribution was made. However, unlike the pro rata tax treatment of withdrawals from a Roth 401(k) account or an after-tax employee contribution account, withdrawals from a deemed Roth IRA are accorded favorable “basis first” treatment. Each withdrawal is treated solely as a return of the contributions the employee made to the account, and therefore is nontaxable, until the employee has withdrawn the full amount of those contributions.

This more favorable tax treatment of deemed Roth IRAs should simplify the process and the communications to employees regarding withdrawals that do not exceed the amount of contributions to the deemed IRA account. The message to employees could explain that withdrawals would be tax-free as long as they do not exceed the employee’s cumulative contributions to the account (sometimes referred to as the “principal” amount). These withdrawals not only would be tax-free, but also would be free of the 10 percent additional tax on early withdrawals, which applies only to the taxable portion of a withdrawal, and the 20 percent mandatory withholding, which does not apply to IRAs.<sup>50</sup>

If the employee withdraws more than the amount of the employee’s contributions, the portion in excess of those contributions is treated as earnings.<sup>51</sup> That portion therefore would be taxable unless it satisfied the 5-year and other requirements for tax-free treatment of withdrawals of Roth account earnings.

Although not an advantage that is of particular relevance to rainy-day savings, Roth IRAs (whether deemed or not) are exempt from the required minimum distribution rules (applicable after reaching age 70½) before the death of the IRA owner. In contrast, a Roth 401(k) account is subject to the age 70½ required minimum distribution rules, as are non-Roth 401(k) accounts. The required minimum distributions generally are taxable unless they represent a return of basis (previously taxed contributions) or are tax-free for other reasons, such as meeting the 5-year and other conditions for tax-free treatment of Roth earnings.

---

<sup>50</sup> IRC section 3405(c).

<sup>51</sup> IRC section 408A(d).

While the deemed Roth IRA would have these tax advantages relating to withdrawals, the ability to contribute to it would be subject to income limits.<sup>52</sup> In 2019, the ability to contribute to a Roth IRA phases out for unmarried and head of household taxpayers over the \$122,000-\$137,000 family income range and phases out for married couples filing their taxes jointly over the \$193,000-\$203,000 family income range.

Another complicating factor is that the tax treatment of an IRA owned by an individual is determined after aggregating it with any other IRAs the individual owns. A deemed Roth IRA would be aggregated for this purpose with any other Roth IRAs the individual owns. The burden of applying this aggregation would fall on the IRA owner. The plan sponsor would not be responsible for taking such aggregation into account because it would have no practical means of knowing about an individual's other IRAs (and the same is true of the IRA trustee or custodian). Excess contributions to an IRA (such as contributions that exceed the maximum permissible IRA dollar limits) are subject to a 6 percent excise tax on the excess amount unless the excess (including any income earned on the excess) is withdrawn by the tax return due date (plus extensions).

### ***3. Mental accounting***

Like the after-tax employee contribution account, a deemed Roth IRA is formally accounted for separately and could be designated expressly as an emergency savings account with a view to facilitating separate mental accounting. The deemed Roth IRA might even do more to promote separate mental accounting insofar as its status as an IRA could make it feel more distinct from the rest of the plan.

### ***4. Automatic enrollment***

The advantages of a deemed Roth IRA provide good reason to consider applying automatic enrollment to deemed Roth IRA contributions up to an appropriate limit targeted by the plan sponsor and the employee. Language in the preamble to the deemed IRA regulations suggests that automatic enrollment in deemed IRAs is permissible.<sup>53</sup> Assuming that is the case, would automatic enrollment into deemed Roth IRA contributions be operationally feasible for plans?

---

<sup>52</sup> But see notes 42 and 48, above.

<sup>53</sup> 69 Fed. Reg. 43,738 (July 22, 2004).

The necessary adaptations of operational and recordkeeping systems would be more difficult than those required for automatic enrollment into after-tax accounts within a 401(k) plan. However, six states and one city have enacted legislation that requires employers that do not sponsor plans to automatically enroll their employees in IRAs to which employees would be connected through the workplace. The IRAs in the state programs follow the template of the federal automatic IRA proposal: payroll deduction IRAs (mostly Roths) that are not associated with an employer plan, rather than deemed payroll deduction Roth IRAs that are associated with employer plans.<sup>54</sup>

If the necessary operational steps are taken, then much of the earlier discussion of the issues and alternatives associated with automatic enrollment in emergency savings after-tax employee contributions would apply also to automatic enrollment in emergency savings deemed Roth IRAs. This would include the discussion of the default contribution level, coordination with automatic enrollment in pre-tax 401(k) salary reduction contributions, suspension of automatic contributions to the emergency savings account once a target balance had accumulated, and potential replenishment following emergency savings withdrawals. In addition, because deemed IRAs generally are treated as ERISA-covered plans for the purposes of ERISA's preemption (and certain other) provisions, a good case can be made that ERISA would preempt state payroll or anti-garnishment laws to the extent that those laws might otherwise be interpreted as prohibiting such automatic enrollment.<sup>55</sup>

The household income limits on eligibility to contribute to a Roth IRA and the annual dollar limits on IRA contributions would present additional—but not insuperable—challenges, especially for the use of automatic enrollment. The plan sponsor generally would not know the employee's household income or the employee's contributions during the year to other IRAs. Accordingly, while plan sponsors could remind participants of these income and contribution limits, only the individual would have the information needed to comply. Those whose household income or other IRA contributions make them ineligible to contribute to a Roth IRA would need

---

<sup>54</sup> See 29 CFR 2510.3-2(a), (h) (Labor Department regulations providing safe-harbor approval of state-facilitated automatic enrollment into Roth and other IRAs without ERISA preemption, later disapproved pursuant to Congressional Review Act).

<sup>55</sup> See ERISA's preemption provisions and deemed IRA exemption provisions at 29 USC 1144(e) and 29 USC 1003(c), respectively. See also the Labor Regulations at 29 CFR 2550.404(c)-5(f)(2) (relating to QDIAs).

to opt out of automatic enrollment in a deemed Roth IRA.<sup>56</sup> This responsibility to avoid contributing if their income exceeds the Roth IRA limits or if their IRA contributions would exceed the annual IRA contribution dollar limits currently rests with individuals in the case of contributions to all Roth IRAs (not only deemed ones).

### **5. Employer matching contributions**

Employer matching contributions geared to employees' deemed Roth IRA contributions raise three threshold questions:

1. Would such employer matching contributions be permissible? (It appears that nothing prohibits this, but see the discussion below.)
2. Would these matching contributions be treated differently from more conventional contributions made by employers to match pre-tax salary reduction contributions or after-tax employee contributions? (Apparently; see the discussion below.)
3. Because, for the most part, deemed IRAs and contributions made to them are subject to the rules governing IRAs, while qualified plans and contributions made to them are subject to the different rules governing qualified plans<sup>57</sup>, how would the analysis differ if the employer matching contributions were deposited in the deemed IRA as opposed to being deposited in a conventional employer contributions account under the plan? (See the discussion below.)

If the match is deposited in the deemed IRA. Employer contributions to IRAs are rare, but the possibility is recognized in the Internal Revenue Code. The Code provides that any employer

---

<sup>56</sup> See also note 32, above. A similar issue arises under automatic IRA programs that use Roth IRAs as the default type of IRA. However, the issue is mitigated in that context by the fact that, consistent with the proposed federal automatic IRA legislation and most of the state automatic IRA statutes, employees who are ineligible generally could not only opt out but could also elect to have the contributions made to a traditional IRA, for which they usually would be eligible. In addition, the automatic IRA programs are designed to cover employees whose employer does not offer a qualified plan (Iwry 2006a, 2006b). Because the incomes of employees who lack access to an employer plan tend to be lower than the incomes of those who have access, the issue of ineligibility by reason of income is likely to arise less frequently in an automatic IRA program (and is likely most often to affect business owners, who can often more readily fend for themselves).

In the context of a qualified plan using deemed Roth IRAs for emergency savings, the employees who are ineligible to contribute to Roth IRAs because their income exceeds the Roth IRA limits would likewise be ineligible to contribute to a deductible (traditional) IRA because they are eligible for the qualified plan and their income would exceed the (lower) traditional IRA limits for such individuals. Another question, beyond the scope of this paper, is whether it would be permissible and workable to use, for Roth-ineligible employees, nondeductible deemed IRAs (i.e., after-tax contributions to deemed traditional IRAs that, being neither deductible contributions nor Roth contributions, would not be subject to income eligibility limits and might later be converted to Roth IRA balances).

<sup>57</sup> Treas. Regs. Section 1.408(q)-1(a), (c).

contributions to an IRA are to be treated for tax purposes as employee contributions to the IRA.<sup>58</sup> The Code also does not prohibit employer contributions to an IRA as a match of an individual's contributions to the IRA (nor does it refer explicitly to this practice). Because such employer contributions would be treated as employee contributions to the IRA, the aggregate of the employer and employee contributions to the IRA would be subject to the normal annual dollar (and compensation) limits on an individual's contributions to IRAs.

Employer contributions that match an individual's contributions to a deemed IRA rather than to a qualified plan might be treated as something other than "matching contributions" for qualified plan purposes. See the compliance section for a discussion of the implications of this.<sup>59</sup>

Directing the employer contributions to the deemed IRA rather than the qualified plan also would tend to cause the IRA balance to more quickly reach the emergency savings target level. Because they would be treated as employee contributions to the deemed Roth IRA, the employer contributions presumably would be accorded Roth IRA tax treatment (taxable when made and, when withdrawn, entitled to Roth IRA basis-first treatment and tax-free return of earnings after 5 years and age 59½).<sup>60</sup>

If the match is deposited in the plan's employer contribution account.<sup>61</sup> If the employer contributions were instead deposited into an employer contribution account in the qualified plan, they generally would be non-taxable when made but fully taxable (including any earnings on the contributions) as ordinary income when withdrawn. The employer contributions matching the individual's contributions to a deemed IRA probably would not be considered "matching contributions" (within the meaning of that term as used in section 401(m) of the Internal Revenue Code and the corresponding 401(k)/401(m) regulations) even if deposited in an employer contributions account in the qualified plan instead of in the deemed IRA. This is because they would not be matching employee contributions to the qualified plan (whether pre-tax salary

---

<sup>58</sup> IRC section 219(f)(5).

<sup>59</sup> Treas. Regs. section 1.401(m)-1(a)(2)(ii). The IRS reached a similar conclusion about the treatment of employer contributions conditioned on employee actions outside of a qualified plan (repayment of student loans in that case) in a 2018 private letter ruling PLR 201833012 (May 22, 2018).

<sup>60</sup> Contributions would be taxable when made and, when withdrawn, entitled to Roth IRA basis-first treatment; the earnings on the contributions would be entitled to tax-free treatment upon distribution after 5 years and the attainment of age 59½, death, disability, or first-home purchase.

<sup>61</sup> The "employer contribution account" is the portion of funds attributable to employer contributions and earnings thereon.

reduction or employee after-tax contributions). Accordingly, they probably would be subject to the qualified plan rules governing employer nonmatching contributions.<sup>62</sup>

## **6. Compliance**

Employees' contributions to a deemed IRA rainy-day savings account would not be considered in the qualified plan's nondiscrimination testing because of their treatment as individuals' contributions to IRAs (which are not subject to nondiscrimination standards).<sup>63</sup> The same would be true of employer matching contributions that are deposited in the deemed IRA. However, if employer contributions matched employees' contributions to a deemed IRA emergency savings account and were deposited in a regular qualified plan account, those employer contributions probably would be treated not as employer matching contributions (as noted earlier), nor as contributions by individuals to IRAs, but rather as employer nonmatching contributions. As a result, they would be subject to the nondiscrimination rules (including those pertaining to the availability of plan benefits, rights, and features) governing employer nonmatching rather than employer matching contributions. Depending on the relative patterns of matched contributions by HCEs and NHCEs, this treatment of employer contributions that are geared to individuals' contributions might either exacerbate or ease the plan's compliance with the nondiscrimination rules.

In addition, the availability of emergency savings contributions to a deemed IRA might reduce NHCEs' pre-tax elective salary reduction contributions to the plan. This could make it harder for the plan to satisfy nondiscrimination standards with respect to the pre-tax contributions, although the impact of this potential "crowd-out" effect on nondiscrimination compliance should depend, among other things, on the relative amounts and perhaps durations of emergency savings contributions and pre-tax contributions by HCEs and NHCEs.

---

<sup>62</sup> See Treas. Regs. section 1.401(m)-1, and discussion in section II.5, above. While uncertain, there might also be a possibility that a plan sponsor, if it thought there was reason to do so, could match employee contributions to a deemed Roth IRA by depositing those matching payments into a taxable rainy-day account outside of both the 401(k) plan and the deemed IRA. See the discussion in section IV.5 regarding taxable employer matching of after-tax employee contributions.

<sup>63</sup> Treas. Regs. section 1.408(q)-1(c), (f)(6).



## **7. Investment**

A deemed IRA is subject to ERISA's fiduciary rules and exclusive benefit rule. ERISA's administration and enforcement provisions would also apply to the deemed IRA, but most other provisions of ERISA Title I (reporting and disclosure, participation, vesting, funding, and others, which would apply to the qualified plan) should not apply. Ordinarily, a deemed IRA will be associated with a 401(k) plan that designs its investment choices in accordance with the requirements of the Department of Labor's regulations that limit fiduciary exposure for investments that are self-directed by plan participants from among the choices in a specified investment menu.<sup>64</sup> To simplify compliance, a plan sponsor might use for the deemed IRA the same investment menu (including QDIA) that applies to the basic 401(k) plan. This would simplify participants' investment choices and might help make some participants feel more comfortable with their investment decisions relating to the deemed IRA. Alternatively, the deemed IRA investment menu could be designed separately to comply with the self-directed investment regulations. In general, it appears that the application of some of ERISA's rules to the deemed IRA should not present a major concern for plan sponsors, as ERISA would already apply to the qualified plan to which the deemed IRA is attached.

A plan that used a deemed Roth IRA emergency savings account without automatically enrolling employees in it would not need to designate a default investment. However, if the plan automatically enrolls employees in the deemed Roth IRA, it would need to designate a default investment for employees who do not affirmatively elect an investment option, and this could be a QDIA.

Another approach that plan sponsors might consider would be to forgo the limited protection of the Labor Department's regulations and designate a single safe investment for the deemed IRA without allowing employees any choice of investments. As discussed earlier, plan sponsors might reasonably conclude that a principal-protected investment would be appropriate for an emergency savings account given its purpose, especially its short-term nature.

Another feature of a deemed IRA is the ability to be invested on a commingled basis (in the same trust) with the qualified plan's other investments (while still accounting separately for contributions and earnings under the deemed IRA and the other plan accounts). Commingled

---

<sup>64</sup> ERISA section 404(c) and the regulations thereunder.

investment might create cost efficiencies for the plan and simplify the combining of the main plan and the deemed IRA.<sup>65</sup>

On the other hand, the advantages of commingling investment of the deemed IRA with other plan assets might be outweighed for plan sponsors by the risk that, if any commingled deemed IRA violated the IRA requirements, all deemed IRAs apparently could be treated as noncompliant with those rules, potentially calling into question the qualified status of the plan. While a plan sponsor might conclude that it is not concerned about the risk of “contagion” in view of the sponsor’s control over the design and operation of the deemed IRAs, such a risk could be avoided by investing the assets of the deemed IRA and the qualified plan in separate trusts.<sup>66</sup>

### ***8. Portability***

A terminating employee with a deemed Roth IRA rainy-day account could spin it off from the associated qualified plan by converting it into a stand-alone Roth IRA (or by consolidating with an existing stand-alone Roth IRA). The stand-alone Roth IRA would be separate from any employer or employer-sponsored plan and could serve as a portable rainy-day savings account without the benefit of employer facilitation. The owner of the stand-alone Roth IRA could make withdrawals without regard to the rules that apply to withdrawals from tax-qualified plans, and withdrawals of contributions (but not necessarily investment earnings) would be tax-free and exempt from the 10 percent early withdrawal penalty that applies to tax-qualified employer-sponsored plans. Individuals whose household income did not exceed the Roth IRA income eligibility limits could contribute to the Roth IRA to add to or replenish its balance.

Alternatively, a separating employee’s former employer might give the employee the option to have the deemed Roth IRA remain associated with the former employer’s plan. The separating employee might also have the option to transfer or roll over the deemed Roth IRA to a new employer’s plan (e.g., to a Roth 401(k) account or deemed Roth IRA) if the new employer was willing to accept it.<sup>67</sup>

---

<sup>65</sup> Principal protection funds ordinarily have lower investment management expenses than many investments that involve higher risk and potentially higher returns. Various types of commingled or collective investments of plan assets are sometimes used in plans as alternatives to mutual funds.

<sup>66</sup> Treas. Regs. section 1.408(q)-1(g).

<sup>67</sup> IRS Notice 2014-54.

If interested, IRA providers could invite rollovers to Roth IRAs as a means of perpetuating rainy-day accounts and making them more portable. They also could facilitate use of the Roth IRA for rainy-day savings purposes. For example, the Roth IRA provider might assist the IRA owner in segmenting the IRA account into distinct rainy-day and long-term savings subaccounts to promote separate mental (and actual) accounting. One possibility would be to earmark part or all of the portion of the Roth IRA balance consisting of contributions as rainy-day savings (up to a designated dollar amount) while treating the rest of the contributions and all of the earnings portion as retirement savings. This could be another avenue for promoting rainy-day savings more broadly. However, it would be important to avoid undermining the overall long-term character of Roth IRAs (and, for that matter, IRAs more generally). The labeling and framing of IRAs as individual “retirement” accounts and the 10 percent additional tax on most types of early withdrawals (only for earnings in the case of Roth IRAs) presumably have encouraged IRA owners to view IRAs as intended for retirement and other long-term purposes.

## **VI. Depository Institution Accounts**

### ***Overview***

An alternative to rainy-day accounts housed within a 401(k) plan is to locate the accounts at a bank or credit union. In certain situations, an account could be accessed with a payroll card or other type of stored value card issued by a depository institution or similar provider.

There are several major advantages of using a depository institution for rainy-day accounts. First, rather than repurposing a savings vehicle designed to hold and invest long-term savings (i.e., the 401(k) plan), the accounts are managed by entities designed to deal with short-term savings and near-instant liquidity. Banks and credit unions have hundreds of years of experience in dealing with just this type of account.

Second, providing rainy-day accounts through banks and credit unions avoids the need to comply with the retirement plan qualification and ERISA rules. Moreover, depository institution accounts could facilitate rainy-day saving by the millions of workers employed at firms that do not offer a retirement plan, who are often lower paid and have at least as much need for emergency

savings as those whose employers do offer a plan. And because the employer has no retirement plan, there would be no worries about coordinating the two types of benefits.<sup>68</sup>

Another advantage of depository institution-based rainy-day accounts is the security of federal deposit insurance. This protection is likely to address any investment questions for the employer, provided that an FDIC or NCUSIF insured institution is chosen and the employer ensures that fees are comparatively low. IRAs and 401(k) plans can offer comparable security only for rainy-day savings balances invested in bank deposits.

On the other hand, using a depository institution for rainy-day accounts would also have a number of disadvantages. For one thing, they would not be entitled to the deferral of tax on earnings or the tax-advantaged treatment accorded to contributions or distributions under qualified retirement plans and IRAs. Second, employers that offer a retirement plan while providing rainy-day accounts through a depository institution would face challenges—if the two types of benefits are linked—in coordinating two different regulatory structures that have very different requirements.<sup>69</sup> An example of coordination that would raise administrative, regulatory, and legal challenges is an arrangement that imposes a maximum limit on the bank or credit union rainy-day savings account balance and redirects to the 401(k) any additional contributions that would cause the balance to exceed that limit.

Further, the fee structures under retirement savings plans and depository institutions are very different. While banks tend to charge certain transaction and account maintenance fees—often monthly—and credit unions, as non-profit cooperatives, tend to have fewer and lower fees than banks, 401(k) accounts tend to deduct fees from earnings, usually on a quarterly basis (and some plan sponsors choose to bear the cost of the fees for their employees). Fees could also be a problem if a stored value or payroll card is used for the rainy-day account. These cards can charge individuals fees that are high in amount and frequency, as discussed below, although those fees are often set after negotiations between the employer and the depository institution.

---

<sup>68</sup> For employees who are not offered or do not participate in a 401(k), rainy-day saving does not serve the additional purpose of potentially reducing 401(k) leakage by focusing short-term withdrawals in a separate emergency savings account that could have the effect of more clearly segregating and therefore better protecting the long-term savings in the regular retirement plan accounts.

<sup>69</sup> If the employer treats the two types of savings accounts as separate unlinked benefits, these problems would be minimal. Employers that use direct deposit, and especially those that allow direct deposits to be split between two or more accounts, already have familiarity with banking requirements.

In addition, federally insured deposits tend to pay minimal, if any, interest, and employers choosing such a rainy-day account structure may be subjected to questions about why they did not choose a structure with higher earnings.

If a depository institution is used for rainy-day accounts, we envision that contributions would go into a savings account rather than a transaction (i.e., checking) account. Alternatively, depending on the population being served, stored value cards could be used instead. A key complication is the federal Electronic Fund Transfer Act,<sup>70</sup> which provides that, in the case of direct deposit, employees either must be allowed to designate their own account rather than one the employer chooses or be offered an alternative form of payment such as a paper check if the money goes into an account designated by the employer. These requirements could be applied to rainy-day accounts as well. However, if the employee is allowed to send rainy-day funds to another bank or credit union account instead of the one designated by the employer, these requirements would likely be met.<sup>71</sup> However, some states also have laws, which might apply here, prohibiting employers from choosing banks for employees.

A further complication is the Know-Your-Customer rules designed to prevent bank accounts from being used for criminal or terrorist activities. In general, these rules require banks and credit unions to establish the identity of the account owner prior to opening the account (with certain exceptions for employer-sponsored ERISA plans). This would seem to rule out automatic enrollment into a rainy-day account outside of a plan, although there is a potential way to avoid this complication if the bank or credit union permits deposits to come only through the employer, as discussed below. Thus, while housing a rainy-day account in a bank or credit union has advantages, many key questions must be answered first.

### ***Stored value payroll cards***

Certain segments of the workforce, especially the approximately 27 percent who are unbanked or underbanked (Federal Deposit Insurance Corporation 2016), could benefit from rainy-day savings deposited on a payroll card. A payroll card is a general purpose stored value card on which an employer directly deposits all or part of an employee's wages instead of paying wages by check or by direct deposit to an employee's personal bank account. An employee can

---

<sup>70</sup> 15 USC 1693 et seq.

<sup>71</sup> Employers that use direct deposit that can be split between two or more accounts would already be able to redirect money into an account the employee chooses.

use a payroll card to obtain cash at an ATM or, like a typical debit card, to pay bills and conduct everyday transactions. Unlike most debit cards, though, the prepaid payroll card is often not directly associated with a bank account. Municipalities, industries, and even the federal government are turning to electronic payment methods like payroll cards to reduce payroll processing costs and deliver pay and benefits in a timely and secure manner that does not require employees to incur check cashing fees or visit a bank.<sup>72</sup>

A major advantage of hosting a rainy-day fund on a payroll card is that the employer would be relieved of the administrative and financial burden of managing the account. Stored value card issuers, which include some of the major credit card companies, are typically in the business of managing pooled accounts with frequent transactions and thousands of subaccounts.<sup>73</sup> Stored value cards can accommodate subaccounts (sometimes referred to as “set-aside” accounts) that reserve funds for particular purposes, such as an emergency savings account separate from a general transaction account.

Payroll cards may also offer an appropriate balance of liquidity and withdrawal restrictions that a traditional bank account does not. Employees can spend or withdraw only the money that is loaded onto the card. Moreover, in addition to the ability to segregate funds in set-aside accounts, cards can impose further limits on the amount that can be spent or withdrawn from the card, or reloaded onto the card, in a single month, day, or other time frame.

Rainy-day set-aside accounts on payroll cards could be used to impose further withdrawal restrictions. Cardholders with such separate accounts could be required to register the card and log on or call the card issuer in order to move funds from their rainy-day set-aside account to their transaction account. Such a hurdle is already an optional feature of prepaid cards with built-in savings “wallets,” such as the Savings Vault in Walmart’s Moneycard, issued by Greendot (Commonwealth 2017). Even employees who elect to deposit most of their wages into their personal bank account or receive them in the form of a check could use a separate payroll card to hold only emergency funds. This would accentuate separate mental accounting, make it harder to

---

<sup>72</sup> Examples of products and educational campaigns to encourage the public to use direct deposit and split deposit include Split to Save, sponsored by the Electronic Payments Association, America Saves, and ePayResources; Go Direct, sponsored by the U.S. Treasury Department; and the Edge Discover prepaid card promoted by the National Restaurant Association.

<sup>73</sup> More than a third of payroll cards have more than 50 purchases over the life of the card (Wilshusen et al. 2012). As discussed earlier, some state laws prohibit employers from paying employees with a payroll card unless the employer first offers the employee a choice or obtains the employee’s written consent.

overspend, and help people stick to their financial plans.<sup>74</sup> The degree to which labeling and marketing a payroll card for emergencies can reduce the tendency to use it for everyday transactions deserves further study.

Payroll cards are not a perfect solution to the emergency savings issue. First and foremost, employers cannot require that employees be paid on a payroll card.<sup>75</sup> Employers must offer employees at least one alternative, which could be to receive their pay through direct deposit into their personal bank account or via check. However, use of the payroll card could also be limited to the rainy-day account. Employees could decide to receive their wages through an alternate method, but still be offered a rainy-day account on a payroll card.

Payroll cards have also come under scrutiny for lack of transparency regarding fees and accessibility of funds. Since payroll cards are common in industries that employ large numbers of low-wage workers, like retail and food service, there are concerns that ATM and transaction fees to access wages from the cards could disproportionately harm those who can least afford to pay them. However, new disclosure requirements in recently issued regulations by the Consumer Financial Protection Bureau (2017) are designed to improve consumers' understanding of card fees. More importantly, the employer could negotiate the level of fees with the card issuer. Finally, employees without reliable internet access may be at a disadvantage when it comes to managing their payroll card accounts and monitoring deposits and withdrawals.

### ***1. Liquidity***

Rainy-day accounts at a depository institution should allow nearly instantaneous access to deposits in the case of an emergency, subject to certain limitations. Most banks and credit unions operate branches that allow customers to withdraw cash or obtain money orders or cashier's checks from their savings account directly from the institution, with few limitations. Most of these depositories also allow direct cash withdrawals from a savings account at both their own ATMs and those operated by other networks. This requires an ATM card to be issued to access the savings account, and typically a daily maximum limit (and often a fee) applies to cash withdrawals from ATMs.

---

<sup>75</sup> 12 CFR 205 Electronic Fund Transfers

Savings accounts are designed to allow rapid transfer of funds to a transaction account, and such moves can be initiated at a branch, through websites and phone apps, at ATMs, and over the phone. However, under federal regulations, withdrawals from a savings account through certain types of transactions are limited to a capped number each month. In theory, depository institutions could also restrict access to funds in savings accounts based on account terms or major financial events, such as institutional failure, but in practice, consumer savings accounts are rarely affected. If the savings account is at a different depository from the saver's main checking or other account, transfers could become slightly more difficult, as the funds would have to be transferred between institutions. While some transfers could be instantaneous, others could take a few days to process.

Access could be just as easy if the employer decided to use a stored value or payroll card to house the rainy-day account. Stored value cards with a savings feature usually allow virtually instantaneous transfers to the card's transaction account through a phone app or a website.<sup>76</sup> Some even allow direct access to savings. In addition, transfers can be arranged using most of the same methods that are used with bank or credit union accounts.

Some level of instantaneous access to a rainy-day account would be valuable in an emergency, although such access could increase the risk that account owners would use the savings for non-emergency situations. Instantaneous access through an ATM may be too tempting for some consumers and thereby self-defeating. In practice, the restrictions imposed by federal regulations on the number of withdrawals per month from savings accounts may prove to be one good way of discouraging misuse of rainy-day accounts.<sup>77</sup> In addition, it may be desirable to encourage rainy-day accounts to require certain interim steps before a withdrawal is made. These steps could include requiring a funds transfer through a separate website, phone app, or other mechanism prior to a withdrawal, or some other way to limit instantaneous access. Banking regulations may restrict the ability of depository institutions to use some of these limitations, but a pooled or trust account that is administered by either the employer or a third party could implement them. On the other hand, in some emergencies, instantaneous access to savings is

---

<sup>76</sup> For instance, Walmart has a stored value card with a savings function that hides the savings from the transactions balance. Account holders can transfer balances through a phone app or online. Another possible means of limiting regular, routine use of a rainy-day savings payroll or stored value card might be simply to label it prominently as intended for emergency purposes.

<sup>77</sup> See Federal Reserve Regulation D, 12 CFR 204. Federal regulations limit withdrawals from savings accounts to six transactions of certain types per month. Restricted transactions include withdrawals made through a debit card, by telephone, or online, but not in-person withdrawals made at a bank branch or at an ATM.



actually needed. If such situations occur sufficiently frequently, withdrawal delays could reduce the value of and willingness of an employee to have a rainy-day account. Employers would need to weigh these considerations before deciding whether to add (or accept) such a delay in employee access to a rainy-day account. A field experiment may be useful in weighing these countervailing considerations.

## ***2. Tax treatment***

Like other bank accounts, a rainy-day account at a depository institution outside of a tax-qualified plan would not be entitled to preferential tax treatment.<sup>78</sup> Deposits would be made on an after-tax basis, and interest and other earnings would be taxable in the year in which they are earned. Withdrawals, whether of previous contributions or earnings, would not be taxed because the funds being withdrawn had been taxed previously. Accordingly, there would be no tax-related need to determine how much of a given withdrawal would be treated as return of contributions versus earnings.

## ***3. Mental accounting***

The differences between depository institution rainy-day accounts and 401(k) plan accounts would facilitate differentiation and separation of the two types of accounts. The depository rainy-day accounts would be housed at a different institution than the 401(k) accounts, with different withdrawal rules, a different statement, and a different institution's name on the statement. This should clearly distinguish the rainy-day accounts from the retirement accounts and could encourage savers to treat them quite differently, viewing their rainy-day accounts as available for emergency withdrawals and their retirement balances as locked up for the long term.

As most consumers have some familiarity with bank accounts, they would almost immediately understand how to use their new rainy-day savings account. However, this familiarity could lead to a different problem: inability to differentiate the rainy-day account from their normal deposit accounts, giving rise to the risk that the rainy-day account would be used for regular expenses rather than being reserved for emergencies.

---

<sup>78</sup> At least in the near term, Congress is unlikely to enact legislation allowing rainy-day accounts to be funded with pre-tax dollars like certain types of employee benefits (such as 401(k) plans or health savings accounts).

Some of the measures to reduce the rainy-day saving account's liquidity that we previously discussed may help protect its balances from routine, non-emergency use. Some experiments using payroll cards with a savings feature show preliminary evidence that some savers continue to carry savings balances on their cards and do not access savings to pay for immediate consumption. For instance, the Consumer Financial Protection Bureau (2016) found that some consumers continued to carry savings balances on their card nine months after their three-month experimental period ended. Similarly, a Commonwealth (2017) study using the Walmart Money Card found not only continued use of the savings "wallet" a year after their study, but higher contributions and higher savings balances.<sup>79</sup> However, it is likely that some unintended or suboptimal use would be a fact of life for a rainy-day depository institution account.

#### ***4. Automatic enrollment***

It is uncertain whether a depository institution rainy-day account could use automatic enrollment. Between 1998, when the U.S. Treasury Department first defined and approved automatic enrollment into retirement saving plans, and 2006, when the Pension Protection Act was enacted, there was discussion of whether auto-enrollment would run afoul of state anti-garnishment wage laws that generally prohibit or restrict deductions from employee paychecks without the employee's advance written consent. There was a range of opinion among plan sponsors, providers, and their legal counsel as to how seriously to take this possible concern. Many believed that ERISA preempted state laws to the extent they might be read to prohibit or restrict auto-enrollment in ERISA-governed plans. Before the issue was laid to rest when the Pension Protection Act of 2006 made clear that such preemption applied, a substantial percentage of large 401(k) plans had already adopted auto-enrollment.<sup>80</sup> However, the potential concern about these state laws remains for non-ERISA auto-enrollment programs. While automatic enrollment has been used for health and certain other employee benefits other than retirement plan contributions, it is uncertain whether automatic enrollment into a depository institution rainy-day account outside of a retirement or other ERISA-governed plan would violate state anti-garnishment laws.

---

<sup>79</sup> Both trials used an incentive to boost initial participation.

<sup>80</sup> ERISA section 514(e)(3). See also Profit Sharing Council of America, Annual Survey of Profit-Sharing and 401(k) Plans (2007) regarding takeup of auto-enrollment. (PSCA later changed its name to "Plan Sponsor Council of America".)

Another complication to using automatic enrollment arises from federal laws designed to prevent bank and credit union accounts from being used to assist criminal or terrorist activities. The Know-Your-Customer (KYC) regulations require depository institutions to positively establish the identity of the account owner before any account can be opened.<sup>81</sup> Without an exception, such a requirement would effectively rule out automatic enrollment.

However, individual banks and credit unions have some flexibility in determining what they require to meet KYC regulations, and this flexibility could be used for automatic enrollment into certain types of rainy-day accounts. Some depositories may allow a company with which they have a history of business dealings to provide funds on an ongoing basis to its employees without the need to follow the normally applicable KYC regulations. The depository institution would depend on the employer to take steps to identify its regular employees through methods such as the immigration requirements under the I-9 form when a new employee is hired. At that time, the necessary documents to meet KYC requirements could be collected and a copy of them sent to the depository institution.<sup>82</sup> Another alternative would be for the depository to accept the employer's certification as long as the account receives funds only through the employer's payroll system. This type of account structure is already available through many payroll card providers. If the account owner starts to deposit funds into the account, then KYC requirements would be triggered. The details of the way that KYC requirements are handled depends on the individual bank or credit union, and could vary depending on its relationship to the employer.

Another method that might be acceptable to individual banks or credit unions would be to locate the rainy-day accounts in a pooled account that the employer opened in its own name and for which it maintained legal responsibility. The employer would deposit and hold in the pooled account all the funds for the benefit of the employees participating in the rainy-day account program, and would separately account for each employee's portion of the pooled funds. However, most employers would likely be deterred by the effort required to administer such an account and the potential employer liability. While these responsibilities could be handled instead through a

---

<sup>81</sup> Financial institutions need proof of the account owner's full name, date of birth, physical address of residence, a tax identification or Social Security number that matches the name and address, and usually a photo ID.

<sup>82</sup> This would be very similar to the way that banks and credit unions deal with KYC regulations in the case of auto loans originated at the dealer. In that case, the dealer checks the borrower's identification and collects copies of the necessary documents to forward to the depository making the loan.

third party that administers the account, the legal owner of the account would still be the employer unless the third party opened the pooled account.

### ***5. Employer matching contributions***

Employers could match employee rainy-day contributions up to a specified level or otherwise help fund a depository institution rainy-day account. The match could go into either the rainy-day account or the employee's retirement savings plan if the employer offers one. Employers could even seed the account with an initial deposit or series of deposits over a certain length of time while encouraging employees to contribute.

However, unlike employer matching contributions to a 401(k) plan, employer matches that are placed in a depository rainy-day account would not be tax-deferred; like most forms of compensation to employees, these employer contributions would be considered taxable income to the employee when made. Few if any employers would be willing to consider paying the tax on such matches for the employee. Among other things, in addition to the cost, such a "gross-up" of taxes would be challenging to administer and could set a precedent that employers would wish to avoid.

An employer that wished to make matching contributions to employees' depository rainy-day accounts would account for those contributions separately from its matching contributions to the 401(k) plan. However, depositing employer matching contributions to the rainy-day accounts could make it harder to satisfy the 401(k) nondiscrimination tests if the rainy-day contributions crowded out not only NHCEs' pre-tax 401(k) contributions (which could occur regardless of where the employer match was deposited) but also employer matching contributions that would otherwise be made to the 401(k) plan. With these considerations in mind, employers might choose to make matching contributions (based on employee contributions made to the depository rainy-day account) to the qualified plan. These matching contributions would need to be monitored to ensure compliance with qualified plan non-discrimination rules that are different from those applicable to regular employer matching contributions triggered by pre-tax or after-tax employee contributions made to the qualified plan, as discussed earlier. Such "cross-plan" matching contributions might give rise to additional administrative/record-keeping challenges.

## ***6. Compliance***

Depository institution accounts would be subject to a number of different regulatory requirements and disclosure rules that differ from those applicable to retirement savings plans. For instance, depository institution regulations are not well suited to deal with automatic enrollment, and state anti-garnishment wage laws would raise an issue regarding the permissibility of auto-enrollment, at least in some jurisdictions. This is because the ERISA provisions preempting state anti-garnishment wage laws to the extent they might prohibit auto-enrollment would not apply to non-ERISA plans or arrangements.

## ***7. Investment***

As contributions to this type of rainy-day account would go into a bank or credit union savings account or a similar instrument, there are no significant issues with the choice of investment. The ERISA fiduciary QDIA rules would not apply, and contributions would go into a pre-determined financial institution savings account. Almost all high-liquidity bank and credit union accounts pay a regular interest rate that is set by the depository institution. The interest rate is likely to be low, although accounts with higher deposit levels might earn higher interest rates than those with lower levels. The interest, like most deposit account interest, generally will be taxable in the year in which it is earned.

Savers wishing to earn more interest could consider using a Certificate of Deposit (CD). However, bank or credit union CDs require the funds to be on deposit for a set period of time, and early withdrawals usually result in a penalty that is often calculated as a portion of the interest the CD would have earned during its entire term. If the CD did not earn interest sufficient to cover the penalty at the time of the early withdrawal, the penalty could be deducted from the principal.

Because rainy-day accounts in a bank or credit union would be covered by federal deposit insurance, balances up to the maximum deposit insurance level (generally \$250,000, far in excess of a plausible rainy-day savings target) should not be at risk.<sup>83</sup> However, non-depository financial institutions issue some stored value cards, and the balances on such cards are unlikely to be covered by federal deposit insurance if the money is not deposited into an underlying bank or

---

<sup>83</sup> Interest rates could vary from quarter to quarter, but this is a very different type of volatility than would be found in a riskier type of investment.

credit union account. In the event that a rainy-day account is housed in such an entity, depositors should be clearly and regularly notified that the FDIC and the NCUA do not insure the accounts.

Another factor to consider with bank or credit union rainy-day accounts is the effect of fees and minimum balance requirements. Unlike 401(k) accounts, depository institutions tend to charge monthly account maintenance fees, especially if the account has low average deposits. They may also charge for a variety of other services, including withdrawals above a certain number per month, the use of an ATM at another financial institution, or transfers to another account. Because fees and other account requirements can vary widely among financial institutions, it will be important to select a low-cost account with minimal restrictions. Larger banks are likely to charge as much as \$5 a month for a savings account and to require a minimum deposit of \$25 to open it.<sup>84</sup> In contrast, certain online banks have no monthly fees and no minimum deposit for opening accounts. Similarly, credit unions generally have lower and fewer fees than commercial banks. Most credit unions have no monthly fees, although they are required to have a \$5 minimum balance. Almost all financial institutions charge a fee for the use of an ATM if the user is not a bank customer. In addition, there are often fees for falling below a minimum balance threshold. While some depository institutions impose minimum balance fees only if the average balance in the account over a set period falls below the minimum, others impose fees if the minimum is not met every day of the month.

If a rainy-day account is housed in the account owner's existing bank or credit union, it may be easier for the account holder to keep fees to a minimum, but if the employer or payroll processor selects the depository institution or the payroll card provider (which may be necessary to achieve scale economies), it would be desirable to choose one with low fees and few other requirements or to negotiate with the provider for low fees. As noted earlier, fees become even more of an issue with a stored value or payroll card, as some cards charge fees for any withdrawal, for other types of transactions, and for failing to use the account within a specified period of time.

## ***8. Portability***

Of the three options discussed in this paper, the bank or credit union account is by far the most portable. It need not be tied to an individual's employer, and in fact requires no employer involvement at all. Individuals on their own can open a bank or credit union account and use it for

---

<sup>84</sup> See <http://rates.savingsaccounts.com/savings-and-money-market-accounts>

emergency saving. Accordingly, a rainy-day savings account could enable employees whose employment with the sponsoring employer terminates to continue the relationship with the depository institution or card provider even if they took a new job with an employer that did not offer a rainy-day saving arrangement. They would also have the option of closing the rainy-day account and transferring the funds to an existing or new account at a different institution.

However, the transition may require certain steps, especially if the rainy-day account is at an institution chosen by the employer. For instance, if the account or stored value card was opened without meeting federal Know Your Customer requirements, the financial institution will require that information before it transfers the account to individual ownership. In addition, employers can play a key role in setting up rainy-day accounts for employees, and can negotiate lower fees and other arrangements that the employee would not have access to on their own. This is especially true if the rainy-day account utilizes a payroll card.

However, an employee who leaves the sponsoring employer and converts the account to individual ownership might be exposed to higher fees and new restrictions. To the extent practical, though, in anticipation of employee turnover, an employer might seek to prohibit the depository institution, as a condition of its agreement with the employer, from making adverse changes to the rainy-day saving arrangements for former employees. Alternatively, the depository institution might voluntarily provide such continuity, especially if it was the moving force behind the rainy-day saving account program. Either way, rainy-day accounts may eventually become an increasingly familiar part of the financial infrastructure, widely offered by depository institutions to employees and nonemployees alike.

### ***Other Approaches***

The three approaches explored in this paper seek to help households deal with short-term financial shocks while reducing dependence on pre-retirement withdrawals from 401(k) plans. Retirement savings plan sponsors and policymakers could consider additional strategies to constrain pre-retirement leakage from those plans once the separate “mental accounting” of a rainy-day savings account is in place, but that is a topic for another paper.

Much of our focus has been on the interactions between rainy-day saving and 401(k) or other retirement saving. But the rainy-day savings account—especially within the bank or credit union approach—can be a natural and central component of the financial wellness programs that

have become a point of interest for employers in recent years. Many of those programs consist largely of useful information, education, and advice regarding basic financial matters. But a corporate Human Resources department that devotes a portion of its financial wellness budget to rainy-day saving may find that adding this direct action element will take its financial wellness program to the next level. The impact of actually facilitating emergency saving may be greater than the impact of good financial education and advice, and might help make the educational aspects of the financial wellness programs more tangible and meaningful to employees.

A number of other options might also be worth considering. One example would be for employers to arrange to offer their employees stand-alone Roth IRAs (distinct from Roth 401(k) accounts or the deemed Roth IRAs described earlier). This paper does not explore that alternative, but many of its advantages and drawbacks are evident from the discussion here. Another alternative might be low-cost rainy-day loans to help employees meet emergency needs. Employers probably would be the parties most likely to be willing to consider making or arranging for such loans on favorable terms to employees as part of their employee benefits or financial wellness programs. Alternatively, interested third-party lenders could do so at their own initiative—with or without employer involvement—if they concluded that it was practical and worth considering. One insurance company is experimenting with a different approach to dealing with certain financial vulnerabilities: offering employees insurance to protect them against the risk of job loss or short-term disability.

These and a number of other possible approaches that merit further exploration are beyond the scope of this paper.<sup>85</sup> We believe that the best way to pursue them is through careful experimentation because the body of evidence thus far is quite limited but the stakes are very high. It is critical that efforts to facilitate rainy-day saving be carefully designed and implemented to avoid the unintended consequences of crowding out retirement or other long-term saving or increasing rather than curtailing leakage from 401(k)s and similar plans.

## **VII. Conclusion**

Automatically enrolling workers into an employer-sponsored payroll deduction “rainy-day” or “emergency” savings account could be a cost-effective means of helping households accumulate liquid savings to meet possible urgent pre-retirement expenditure needs. This is true

---

<sup>85</sup> See, for example, the discussion in Prosperity Now (2017).



regardless of whether the employer offers some form of workplace retirement plan. After describing the salient features of several possible approaches—after-tax employee contributions within a 401(k) plan, deemed Roth IRAs associated with a 401(k), and separate rainy-day savings accounts at a bank or credit union, generally arranged by the employer—and considering their advantages and disadvantages, our view is that, at this early stage, each approach merits further exploration. Conceivably, the market will take up more than one approach, including, for example, 401(k)-based rainy-day accounts for employees of companies that already offer a 401(k) retirement savings plan, and rainy-day saving at depository institutions for employees of companies that do not already offer a retirement plan.

That said, we are under no illusion that most employers will immediately jump at the chance to offer rainy-day accounts to their employees. In our voluntary private employee benefits system, many employers will be inclined to begin and end by asking, “What’s in it for me?” Many will find ready justifications for not getting involved and for letting employees figure this out on their own: costs to employers, administrative burdens, lack of special tax incentives in the case of stand-alone bank or credit union accounts, concern about litigation risks, and a concern that asset building efforts will prove counter-productive by crowding in more simultaneous debt-holding (e.g., see Beshears, Choi, Laibson, Madrian, and Skimmyhorn 2019). But concerns such as these have not prevented hundreds of thousands of plan sponsors from choosing to sponsor retirement savings plans to compete effectively in the labor market and to promote greater workplace productivity by addressing workers’ needs. Moreover, it remains to be seen to what extent the investment managers, recordkeepers, and other financial institutions and service providers that market retirement saving plans to employers and to the self-employed will find it in their interest to offer rainy-day savings as well.

The evidence suggests a real need for short-term savings. Therefore, rainy-day savings arrangements at the workplace could help attract and retain valuable employees. Some employers and providers have shown interest in establishing rainy-day accounts and have been exploring how best to do so. Over time, the development of creative approaches in the marketplace, further research and analysis, and appropriate legislative and regulatory changes may facilitate the use of

automatic enrollment, employer matching, and other effective behavioral strategies in support of portable rainy day saving.<sup>86</sup>

At the same time, it is critical that efforts to facilitate short-term saving be carefully designed and implemented to avoid the unintended consequences of crowding out retirement or other long-term saving. Because the stakes are very high and the body of evidence quite limited, we believe the best way forward will involve workplace pilot projects and careful experimentation. Ultimately, through this process, rainy-day saving for employees and others could become an established and important feature of the benefits landscape.

---

<sup>86</sup> Two of the authors have been assisting with the design of proposed emergency saving legislation in Congress at the request of legislators who are eager to press ahead on that front. See S. 3218 (115<sup>th</sup> Cong. 2018), “Strengthening Financial Security Through Short-Term Savings Accounts Act of 2018” (introduced by former Senator Heitkamp with Senators Cotton, Booker, and Young). Because experimentation with rainy-day saving is only beginning, and the thinking here is only at an initial stage, we have advised that legislative efforts proceed with caution to avoid the risk of inadvertently chilling creative activity in the market that might legitimately proceed but for inferences some might draw from legislative proposals that Congress must first clear the way.

**TABLE 1. Summary Assessment of Potential Employer-Sponsored Rainy-Day Savings Account Structures**

	<b>After-tax account within a 401(k) plan</b>	<b>Deemed Roth IRA within a 401(k) plan</b>	<b>Depository institution account outside of any 401(k) plan</b>
<b>Ability to use automatic enrollment</b>	<ul style="list-style-type: none"> <li>• Apparently permissible</li> </ul>	<ul style="list-style-type: none"> <li>• Apparently permissible</li> </ul>	<ul style="list-style-type: none"> <li>• Uncertain</li> </ul>
<b>Rainy-day account balance target</b>	<ul style="list-style-type: none"> <li>• High legal limit on annual tax-favored contributions</li> </ul>	<ul style="list-style-type: none"> <li>• Low legal limit on annual tax-favored contributions</li> </ul>	<ul style="list-style-type: none"> <li>• No legal limit on annual contributions</li> </ul>
<b>Investment of rainy-day balances</b>	<ul style="list-style-type: none"> <li>• Employee investment choice possible but not required</li> <li>• Less fiduciary protection if don't offer choice</li> <li>• Possible tension between principal protection and QDIA protection</li> </ul>	<ul style="list-style-type: none"> <li>• Employee investment choice possible but not required</li> <li>• Less fiduciary protection if don't offer choice</li> <li>• Possible tension between principal protection and QDIA protection</li> </ul>	<ul style="list-style-type: none"> <li>• Bank savings account</li> <li>• Covered by federal deposit insurance</li> <li>• Investment choice unlikely</li> </ul>
<b>Fees and expenses</b>	<ul style="list-style-type: none"> <li>• Somewhat uncertain, but common plan feature. Potential to adjust</li> </ul>	<ul style="list-style-type: none"> <li>• Somewhat uncertain. Potential to adjust</li> </ul>	<ul style="list-style-type: none"> <li>• Uncertain, potential to vary widely across providers, but employer might negotiate</li> </ul>
<b>Ability to provide employer matching contributions</b>	<ul style="list-style-type: none"> <li>• Matching contribution made to plan's pre-tax employer contribution account creates incentive for rainy-day saving, but not itself available for rainy-day withdrawals. Employer match, if made outside plan, would be taxable.</li> </ul>	<ul style="list-style-type: none"> <li>• Matching contribution made to plan's pre-tax employer contribution account creates incentive for rainy-day saving, but not itself available for rainy-day withdrawals. Employer match, if made outside plan, would be taxable.</li> <li>• Doubtful that match into deemed Roth IRA would work (so creates incentive for rainy-day saving, but probably not itself available for rainy-day withdrawals)</li> </ul>	<ul style="list-style-type: none"> <li>• Matching contribution can be made to depository account (taxable), so could add to rainy-day saving account balance</li> <li>• Matching contribution made to plan's pre-tax employer contribution account creates incentive for rainy-day saving, but not itself available for rainy-day withdrawals. Employer match, if made outside plan, would be taxable.</li> </ul>
<b>Ease of employee access to account balances</b>	<ul style="list-style-type: none"> <li>• Some delay in access</li> </ul>	<ul style="list-style-type: none"> <li>• Some delay in access</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively easy</li> </ul>
<b>Tax treatment of earnings and withdrawals</b>	<ul style="list-style-type: none"> <li>• Contributions withdrawn tax-free, but complicated because each withdrawal includes taxable earnings</li> <li>• Earnings accumulate tax-free but are taxable upon withdrawal</li> </ul>	<ul style="list-style-type: none"> <li>• Contributions withdrawn tax-free, and each withdrawal tax-free until all contributions are withdrawn</li> <li>• Earnings accumulate tax-free but are taxable upon withdrawal unless after 5 years and age 59 ½, death or disability</li> </ul>	<ul style="list-style-type: none"> <li>• No favorable tax treatment</li> <li>• Least complicated</li> </ul>

**TABLE 1. Summary Assessment of Potential Employer-Sponsored Rainy-Day Savings Account Structures**

	<b>After-tax account within a 401(k) plan</b>	<b>Deemed Roth IRA within a 401(k) plan</b>	<b>Depository institution account outside of any 401(k) plan</b>
<b>Portability after job change</b>	<ul style="list-style-type: none"> <li>• Portability possible, somewhat cumbersome</li> </ul>	<ul style="list-style-type: none"> <li>• Portable because it is an IRA</li> </ul>	<ul style="list-style-type: none"> <li>• Portability relatively easy and uncomplicated</li> </ul>
<b>Compliance issues</b>	<ul style="list-style-type: none"> <li>• Several compliance issues, including need to monitor interaction with nondiscrimination rules</li> </ul>	<ul style="list-style-type: none"> <li>• Some compliance issues, including need to monitor interaction with nondiscrimination rules</li> </ul>	<ul style="list-style-type: none"> <li>• Some compliance issues other than nondiscrimination rules: if use autoenrollment, then wage garnishment and Know Your Customer compliance issues</li> </ul>

## References

- Angeletos, George-Marios, et al., 2001. "The hyperbolic consumption model: Calibration, simulation, and empirical evaluation." *The Journal of Economic Perspectives* 15.3, pp. 47-68.
- Argento, Robert, Victoria L. Bryant, and John Selhaus, 2015. "Early withdrawals from retirement accounts during the Great Recession." *Contemporary Economic Policy* 33, pp. 1-16.
- Beshears, John, James J. Choi, David Laibson, and Brigitte C. Madrian, 2008. "The importance of default options for retirement savings outcomes: Evidence from the United States." In Stephen J. Kay and Tapen Sinha, editors, *Lessons from Pension Reform in the Americas*, pp.59-87. Oxford University Press.
- Beshears, John, James J. Choi, David Laibson, and Brigitte C. Madrian. 2012. "The Availability and Utilization of 401(k) Loans." In David A. Wise, editor, *Investigations in the Economics of Aging*, University of Chicago Press, pp.145-72.
- Beshears, John, James J. Choi, David Laibson, and Brigitte C. Madrian, 2017. "Does front-loading taxation increase savings? Evidence from Roth 401(k) introductions." *Journal of Public Economics* 151, pp. 84-95.
- Beshears, John, James J. Choi, David Laibson, and Brigitte C. Madrian, 2018a. "Behavioral Household Finance." In B. Douglas Bernheim, Stefano DellaVigna, and David Laibson, eds., *Handbook of Behavioral Economics*. Amsterdam: Elsevier.
- Beshears, John, James J. Choi, David Laibson, and Brigitte C. Madrian, 2018b. "Potential vs. realized savings under automatic enrollment." TIAA Institute Working Paper.
- Beshears, John, James J. Choi, David Laibson, Brigitte C. Madrian, and William L. Skimmyhorn, 2019. "Borrowing to save? The impact of automatic enrollment on debt." Working paper. Board of Governors of the Federal Reserve System, 2019. *Report on the Economic Well-being of U.S. Households in 2018*.
- Brown, S. Kathi, Catherine Harvey, and David John, 2018. "Saving at Work for a Rainy Day: Results from a National Survey of Employees." AARP Public Policy Institute. <https://www.aarp.org/content/dam/aarp/ppi/2018/09/rainy-day-national-survey.pdf>
- Cheng, Andong, and Cynthia Cryder, 2018. "Double mental accounting: When a single price promotion feels twice as nice." *Journal of Marketing Research* 55, pp.226-38.

- Chetty, Raj, John N. Friedman, Søren Leth-Petersen, Torben Hein Nielsen, and Tore Olsen, 2014. “Active vs. passive decisions and crowd-out in retirement savings accounts: Evidence from Denmark.” *Quarterly Journal of Economics* 129(3), pp. 1141-1219.
- Choi, James J., 2015. “Contributions to defined contribution pension plans.” *Annual Review of Financial Economics* 7, pp. 161-178.
- Choi, James J., David Laibson, and Brigitte C. Madrian, 2011. “\$100 bills on the sidewalk: Suboptimal investment in 401(k) plans.” *Review of Economics and Statistics* 93(3), pp.748-63.
- Choi, James J., David Laibson, Brigitte C. Madrian, and Andrew Metrick, 2002. “Defined Contribution Pensions: Plan Rules, Participant Decisions, and the Path of Least Resistance.” In James Poterba, ed., *Tax Policy and the Economy* 16, pp. 67-114.
- Choi, James J., David Laibson, Brigitte C. Madrian, and Andrew Metrick, 2004. “For Better or For Worse: Default Effects and 401(k) Savings Behavior.” In David Wise, ed., *Perspectives in the Economics of Aging*. Chicago: University of Chicago Press, pp. 81-121.
- Commonwealth, 2017. “Walmart MoneyCard Prize Savings: One Year Anniversary Brief,” Boston.  
[https://buildcommonwealth.org/assets/downloads/Prize\\_Savings\\_Anniversary\\_Brief.pdf](https://buildcommonwealth.org/assets/downloads/Prize_Savings_Anniversary_Brief.pdf)
- Consumer Financial Protection Bureau, 2017. Prepaid rule’s key changes for payroll accounts. Washington, DC: CFPB. [https://s3.amazonaws.com/files.consumerfinance.gov/f/documents/201704\\_cfpb\\_Prepaid\\_payrollcard\\_v2.pdf](https://s3.amazonaws.com/files.consumerfinance.gov/f/documents/201704_cfpb_Prepaid_payrollcard_v2.pdf) (accessed October 2017).
- Consumer Financial Protection Bureau, 2016. “Tools for saving: Using prepaid accounts to set aside funds,” Washington, DC.  
[https://s3.amazonaws.com/files.consumerfinance.gov/f/documents/092016\\_cfpb\\_ToolsForSavingPrepaidAccounts.pdf](https://s3.amazonaws.com/files.consumerfinance.gov/f/documents/092016_cfpb_ToolsForSavingPrepaidAccounts.pdf)
- Defined Contribution Institutional Investment Association, 2017. “Design Matters: The Influence of DC Plan Design on Retirement Outcomes.”  
[http://c.ymcdn.com/sites/dciia.org/resource/collection/23D6FA15-31A6-4ABA-826B-A8718DC03E59/design\\_matters\\_\\_the\\_influence\\_of\\_dc\\_plan\\_design\\_on\\_retirement\\_outcomes\\_07.25.17\\_15.pdf](http://c.ymcdn.com/sites/dciia.org/resource/collection/23D6FA15-31A6-4ABA-826B-A8718DC03E59/design_matters__the_influence_of_dc_plan_design_on_retirement_outcomes_07.25.17_15.pdf)

- Deloitte Consulting LLP, 2007. “Annual 401(k) Benchmarking Survey, 2005/2006 Edition.” <http://globalag.igc.org/pension/us/private/2007/deloitte.pdf>
- Dold, Elizabeth T., 2002. “Deemed IRAs – A Welcomed New Plan Design Feature,” *Pension and Benefits Week (RIA)* (Nov 18).
- Employee Benefit Research Institution, 2017. “The 2017 Retirement Confidence Survey: Many Workers Lack Retirement Confidence and Feel Stressed About Retirement Preparations.” <https://www.ebri.org/pdf/surveys/rcs/2017/IB.431.Mar17.RCS17..21Mar17.pdf>
- Federal Deposit Insurance Corporation, 2016. *2015 FDIC national survey of unbanked and underbanked households*.
- Fox, Craig R., Rebecca K. Ratner, and Daniel S. Lieb, 2005. “How Subjective Grouping of Options Influences Choice and Allocation: Diversification Bias and the Phenomenon of Partition Dependence.” *Journal of Experimental Psychology: General* 134, pp.538-51.
- Gale, William G., J. Mark Iwry, David C. John, and Lina Walker, 2009. *Automatic: Changing the Way America Saves*. Washington, DC: Brookings Institution Press.
- Harris Interactive, 2007. “Retirement made simple.” <http://www.retirementmadesimpler.org/Library/FINAL%20RMS%20Topline%20Report%2011-5-07.pdf>. Accessed June 23, 2017.
- Iwry, J. Mark, 2006a. “State-K: A Strategy for Using State-Assisted Saving to Expand Private Pension Coverage,” Supplemental Written Testimony before the Subcommittee on Long-Term Growth and Debt Reduction of the Committee on Finance, U.S. Senate (June 29).
- Iwry, J. Mark, 2006b. “Growing Private Pensions: A Supporting Role for the States” *Tax Management Compensation Planning Journal* 34 (December).
- Kaplan, Greg, and Giovanni L. Violante, 2014. “A model of the consumption response to fiscal stimulus payments,” *Econometrica* 82(4), pp. 1199-239.
- Kaplan, Greg, Giovanni L. Violante, and Justin Weidner, 2014. “The Wealthy Hand-to-Mouth.” *Brookings Papers on Economic Activity* (Spring 2014).
- Laibson, David, 1997. “Golden eggs and hyperbolic discounting.” *Quarterly Journal of Economics* 112(2), pp. 443-478.
- Madrian, Brigitte C., and Dennis F. Shea, 2001. “The power of suggestion: Inertia in 401(k) participation and savings behavior.” *Quarterly Journal of Economics* 116, pp. 1149-1187.

- Morduch, Jonathan, and Rachel Schneider, 2017. *The Financial Diaries: How American Families Cope in a World of Uncertainty*. Princeton, NJ: Princeton University Press.
- Orszag, Peter R., Iwry, J. Mark, and Gale, William G., *Aging Gracefully: Ideas to Improve Retirement Security in America* (Century Foundation 2006).
- Plan Sponsor Council of America, 2007. *50th Annual Survey of Profit Sharing and 401(k) Plans*. Chicago, IL: Plan Sponsor Council of America.
- Plan Sponsor Council of America, 2018. *61st Annual Survey of Profit Sharing and 401(k) Plans*. Chicago, IL: Plan Sponsor Council of America.
- Poterba, James M., Steven F. Venti, and David A. Wise, 1998. "Lump Sum Distributions from Retirement Savings Plans: Receipt and Utilization." In *Inquiries in the Economics of Aging*, David A. Wise (ed.). University of Chicago Press.
- Prosperity Now, 2017. "Workplace Financial Wellness Services: A Primer for Employers," [https://prosperitynow.org/sites/default/files/PDFs/workplace\\_financial\\_wellness\\_services\\_revised.pdf](https://prosperitynow.org/sites/default/files/PDFs/workplace_financial_wellness_services_revised.pdf)
- Retirement Management Services, LLC, 2015. "2015 Benchmark Survey Highlights Plan Trends." <http://www.consultrms.com/res/uploads/media/Benchmark-survey-results-PDF.pdf>
- Soman, Dilip, and Amar Cheema, 2011. "Earmarking and Partitioning: Increasing Saving by Low-Income Households," *Journal of Marketing Research* 48, SPL, pp. S14-22.
- Thaler, Richard H., 1999. "Mental accounting matters." *Journal of Behavioral Decision Making*, 12(3), p.183.
- Tierney, Spencer, 2017. "Emergency Fund: What It Is and Why It Matters," *Nerdwallet* (Nov 30).
- Vanguard, 2019. *How America Saves: 2019*. <https://institutional.vanguard.com/iam/pdf/HAS2019.pdf>
- Wilshusen, Stephanie M., Robert M. Hunt, James van Opstal, and Rachel Schneider, 2012. *Consumers' use of prepaid cards: A transaction-based analysis*. Philadelphia, PA: Federal Reserve Bank of Philadelphia.
- Zhang, Yiwei C. and Abigail B. Sussman, forthcoming. "The Role of Mental Accounting in Household Spending and Investing Decisions." In C. Chaffin, ed., *Client Psychology*. New York: Wiley.