

Building Emergency Savings Through Employer-Sponsored Rainy-Day Savings Accounts

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Abstract

Roughly half of Americans live paycheck to paycheck. When financial shocks occur during their working life, many of these households therefore tap their retirement savings accounts. We explore the practical considerations and challenges associated with helping households accumulate liquid savings that can be deployed when urgent pre-retirement needs arise. We propose that this can be achieved cost effectively by automatically enrolling workers into an employer-sponsored payroll deduction “rainy-day” or “emergency” savings account, and 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. We refer practitioners interested in seeing each implementation option discussed in its own self-contained section to the version of this paper distributed as NBER Working Paper No. 26498.

Executive Summary

Roughly half of Americans live paycheck to paycheck. When financial shocks occur during their working lives, many of these households tap their retirement savings accounts. We explore the practical considerations and challenges associated with helping households accumulate liquid savings that can be deployed when urgent pre-retirement needs arise. In particular, we consider plans that would allow employers to automatically enroll workers into an employer-sponsored payroll deduction “rainy-day” or “emergency” savings account.

Having separate rainy-day and retirement savings accounts can facilitate greater saving for short- and long-term purposes by helping to psychologically segregate and catalyze these two motives to save. Auto-features and mental accounting can be jointly deployed to reduce the frequency with which short-term needs crowd out long-run retirement savings.

We describe 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 present pros and cons of each approach, given the existing regulatory regime, relative to the following criteria: the ability to automatically enroll employees into the rainy-day account; the targeted size of the rainy-day account; the investment allocation used for the rainy-day account; the fees and expenses associated with setting up and administering the rainy-day account; employers’ ability to match employee contributions to the rainy-day account and the destination of those matching contributions; the ability of the rainy-day account to provide liquidity when the funds are needed; the tax treatment of contributions to, earnings in, and withdrawals from the rainy-day account; the portability of account balances when employees separate from a sponsoring employer; and compliance and potential interactions with the nondiscrimination rules that apply to tax-qualified employer-sponsored plans.

We conclude that each of the three implementation options merits exploration and field testing.

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).¹ 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.² 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 bias combines with other behavioral biases such as limited foresight, myopia, and over-optimism

¹ 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).

² These distributions do not include IRA rollovers or Roth conversions.

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.³

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,⁴ the fraction of plans automatically enrolling employees unless they opt out increased

³ For an introduction to cafeteria plans, see <https://www.irs.gov/government-entities/federal-state-local-governments/faqs-for-government-entities-regarding-cafeteria-plans>

⁴ 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)).

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.

In this paper, we lay out a set of potential design options for employer-sponsored rainy-day savings accounts in the U.S. We start in Section I by discussing the motivation for wanting individuals to have a separate rainy-day savings account. We then briefly sketch in Section II three potential ways in which employer-sponsored rainy-day savings accounts could be structured. Section III outlines the conceptual issues that should be considered when establishing such accounts. Section IV evaluates each of the three potential account structures we consider in light of these conceptual issues. We conclude in Section V.

I. 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 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% 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).

II. Options for Structuring Employer-Sponsored Rainy-Day Savings Accounts

Mental accounting provides a strong rationale for having separate retirement and rainy-day savings accounts, and the power of payroll deduction coupled with automatic enrollment provides a strong rationale for doing so through the employment relationship. In this section, we sketch three different approaches employers could use to create rainy-day savings accounts for their employees.

If an employer sponsors both a retirement and a rainy-day savings account, the possibility arises to link these two accounts in some sort of way. The simplest form of linkage would be to have a common administrator for both accounts. For employers, this could create economies of scale in plan administration. For employees, the cognitive burden of managing different accounts could be reduced if both were accessible through a single online login and tracked through a single combined statement.

More sophisticated linkages that could facilitate both short- and long-term savings goals are also possible. For example, an employer could direct a match on employee rainy-day account contributions into the retirement savings account, increasing accumulation in both accounts. An employer could also dynamically adjust the flow of contributions across the two accounts depending on the balance in the rainy-day account. For example, an employee could elect a fixed combined contribution rate to the two accounts, and the fraction of savings flows going to the rainy-day account would increase when balances in that account are low, and decrease to zero as balances approach some maximum threshold (which could be set by either the employee or the employer). This approach gives employees a predictable deduction from their paycheck, funds the rainy-day and retirement savings accounts simultaneously, reduces the cognitive burden on employees of managing the savings flows to both accounts, and limits the temptation to spend out of the rainy-day account by shifting savings to the retirement account when the rainy-day account balance is “high enough.” For employees with unpredictable income streams who are likely to make more regular use of a rainy-day savings account, the combined contribution rate to the two accounts could dynamically adjust as well to be lower when income is low, and higher when income is high.

The value in being able to link retirement and rainy-day savings accounts motivates the first two ways of structuring an employer-sponsored rainy-day savings account that we consider,

which both put the rainy-day account in an existing 401(k) retirement savings plan. But there are also costs associated with setting up a rainy-day account within a 401(k). Indeed, each of the three approaches we describe below has advantages and disadvantages. None clearly dominates the others, which is why we consider multiple alternatives.

There are two alternatives that fall under the 401(k) umbrella that we *do not* consider: using either a supplementary pre-tax or a supplementary Roth 401(k) account as a rainy-day savings vehicle. Both pre-tax and Roth 401(k) accounts are ill-suited for rainy-day savings because they are subject to withdrawal restrictions while the account holder is employed. This subverts the purpose of a rainy-day account, which is to provide liquidity in the face of immediate financial hardship.

A. After-Tax Employee Contribution Account within a 401(k) Plan

In addition to the familiar pre-tax or Roth 401(k) contributions, many 401(k) plans also permit “after-tax employee contributions.” As their name suggests, these contributions are made with after-tax dollars (in contrast to pre-tax employee contributions, which are excluded from current taxable income). Note that these *are not the same as* Roth 401(k) contributions. Although both after-tax employee contributions and Roth 401(k) contributions are made with after-tax dollars, the tax treatment of the earnings in the two types of accounts is different. Earnings on after-tax employee contributions are tax-deferred: they are taxed upon withdrawal. Earnings on Roth 401(k) contributions, like on Roth IRA contributions, are not only tax-deferred but also tax-free if withdrawn at least five years after the year of the participant’s first Roth contribution, provided that the participant has reached age 59½ at withdrawal (or has died or become disabled).

After-tax employee contributions were common in the employer-sponsored thrift savings plans that existed before the advent of the 401(k). Because pre-tax and Roth contributions are afforded more preferential tax treatment than after-tax contributions, relatively few 401(k) participants make after-tax employee contributions. Nonetheless, some plans include after-tax employee contribution accounts for special purposes.⁵ A 401(k) plan could repurpose an existing

⁵ These include 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 employee contribution account as a rainy-day savings account or could add a new after-tax account for this purpose.

B. Deemed Roth IRA within a 401(k) Plan

One of the main drawbacks of using an after-tax employee contribution account as a rainy-day savings vehicle is that the *earnings* portion of withdrawals from such accounts is taxed during much of working life (and potentially subject to an early withdrawal penalty described later). Another way to facilitate rainy-day savings under the 401(k) umbrella is through a deemed Roth IRA. Qualified plans are permitted to let employees make voluntary contributions to an account associated with the plan that can be treated in the same way as an IRA if it satisfies certain requirements. This type of account is called a “deemed IRA”^{6,7} and is for the most part subject to the same rules governing regular IRAs. Although a deemed IRA can be either traditional (pre-tax) or Roth, the tax treatment of a deemed Roth IRA makes it better-suited than a traditional IRA to serve as a rainy-day savings vehicle.

C. Depository Institution Account Outside of a 401(k) Plan

An alternative to housing rainy-day accounts within a 401(k) plan is to locate the accounts at a bank or credit union. There are several major advantages to using a depository institution instead of a 401(k). First, rather than repurposing a savings vehicle designed to hold long-term savings, the accounts are managed by entities whose primary business is to manage short-term savings and provide near-instant liquidity. Second, providing rainy-day accounts through banks and credit unions avoids the need to comply with retirement plan qualification rules and ERISA regulations. Third, depository institution accounts could facilitate rainy-day saving by the millions of workers at firms that do not offer a retirement plan. Such workers are often lower-paid and have at least as much need (if not more) for emergency savings as those whose employers do offer a retirement savings plan. Fourth, depository institution accounts come with the security of federal deposit insurance. IRAs and 401(k) plans can offer this type of security only for balances invested in bank deposits, which are not offered as an option in many such plans.

⁶ This type of account is also sometimes referred to in the qualified plan context as a “sidecar IRA.”

⁷ Treas. Regs. section 1.408(q)-1(a).

A disadvantage of using a depository institution account as the rainy-day savings vehicle is that linking such an account with a retirement savings account is more complicated than if both accounts were managed by a single administrator under the umbrella of the 401(k) or other retirement savings plan. In addition, the bank or credit union accounts would not enjoy the tax advantages of a 401(k) plan or take advantage of the existing well-developed 401(k) financial and record-keeping infrastructure.

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 of a savings account, or could be used to provide access to funds in those accounts. Certain segments of the workforce, particularly the 27 percent who are unbanked or underbanked, could benefit from rainy-day savings deposited on a payroll card (Federal Deposit Insurance Corporation 2016). 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 paycheck or by direct deposit to an employee's personal bank account. An employee can 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, however, a payroll card is often not directly associated with a specific bank account, although the funds themselves are almost always deposited in a bank or similar institution.) Most importantly for the purposes of this paper, 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. 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 to visit a bank.

III. Considerations in Choosing Among Employer-Sponsored Rainy-Day Savings Account Structures

This section outlines the conceptual issues that are relevant in evaluating the merits of the potential rainy-day savings account options proposed above. Our intent is not to provide a comprehensive analysis of the possible alternatives, and many of the relevant considerations involve legal issues that have yet to be resolved. Rather, our intent is to briefly outline the salient

issues relevant to the three proposed potential approaches, including their most significant advantages and disadvantages, and focus on the more significant design and implementation issues.

A well-designed employer-sponsored rainy-day or emergency savings arrangement needs to be easy for savers to participate 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, the following are key features and concerns that are potentially relevant:

- Ability to automatically enroll employees into rainy-day savings accounts
- The targeted size of the rainy-day account balance, if any, and what happens to further contributions once the targeted balance is reached
- The investment allocation of rainy-day savings account balances
- The fees and expenses associated with setting up and administering rainy-day savings accounts
- The ability of employers to match employees' rainy-day savings account contributions and the destination of those matching contributions (e.g., into the rainy-day account, or into a retirement account)
- Prompt liquidity when rainy-day funds are needed
- Tax treatment of contributions to, earnings in, and withdrawals from the rainy-day savings account
- Portability of rainy-day savings when an employee separates from a sponsoring employer
- Compliance issues, including potential interactions with the nondiscrimination rules that apply to tax-qualified employer-sponsored savings plans

We discuss each of these considerations in turn and evaluate how the three approaches toward employer-sponsored rainy-day savings examined in this paper fare on these margins.⁸

⁸ One consideration we do not discuss in the main text is the protection of assets in each of these accounts during personal bankruptcy. Assets held in ERISA-governed, tax-qualified retirement plans are protected from claims of general creditors. See Bankruptcy Code section 541(c)(2); ERISA section 206(d)(1); Internal Revenue Code section 401(a)(13); *Patterson v. Shumate*, 504 U.S. 753 (1992). Savings in IRAs are also protected, but with some exceptions (for example, the protection does not apply to amounts in IRAs that exceed a very large protected balance or to rollovers to IRAs from certain kinds of plans). Savings in depository institution accounts generally are not protected from creditors in bankruptcy, although in most circumstances the practical significance of this

A. Ability to Use Automatic Enrollment

Automatic enrollment into employer-sponsored retirement savings plans has proven to be an extremely effective tool for increasing savings plan participation (Madrian and Shea 2001; Choi et al. 2002, 2004; Beshears et al. 2008; Gale et al. 2009; Vanguard 2019). It has been particularly effective among younger workers, lower-paid employees, women, and minorities (Defined Contribution Institutional Investment Association 2017; Retirement Management Services 2015). Simultaneous automatic enrollment of workers into a retirement savings plan *and* a rainy-day account holds similar potential to greatly increase emergency savings plan participation, reducing the proportion of adults without sufficient savings to handle a basic financial emergency.

While automatic enrollment into pre-tax accounts in a tax-qualified retirement savings plan is explicitly allowed, whether it is permissible for other types of savings accounts is less clear. Between 1998, when the U.S. Treasury Department first defined and approved automatic enrollment into tax-qualified retirement saving plans, and 2006, when the Pension Protection Act was enacted, there was extensive discussion about 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. Plan sponsors, providers, and their legal counsel differed in how seriously to take this potential concern. Many asserted that ERISA preempted such state laws, and roughly one-third of large 401(k) plans had adopted auto-enrollment (Plan Sponsor Council of America, 2007) by the time the issue was laid to rest with the Pension Protection Act of 2006, which makes clear that such a preemption does apply for pre-tax accounts.⁹

Although Treasury and the IRS have not issued explicit guidance on the permissibility of automatic enrollment into after-tax accounts within a 401(k) plan, we are aware of nothing that prohibits doing so, and such a use of automatic enrollment is consistent with the rationale justifying its use for pre-tax accounts, namely that under automatic enrollment employees are

difference will be quite limited, as an individual nearing bankruptcy can ordinarily be expected to have had to drain the assets in any rainy-day account in the runup to the bankruptcy event.

⁹ ERISA section 514(e)(3).

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 into pre-tax employee accounts is permissible includes language implying that automatic enrollment could also apply to after-tax employee accounts.¹⁰ Accordingly, we assume that qualified plans can automatically enroll employees into either pre-tax or after-tax employee contribution accounts and that the ERISA preemption of state payroll and anti-garnishment laws that might otherwise be interpreted as prohibiting such automatic enrollment applies to after-tax accounts in the same way as it applies to pre-tax accounts.

Language in the preamble to the deemed IRA regulations suggests that automatic enrollment into deemed IRAs is also permissible. Because deemed IRAs are generally treated as ERISA-covered plans for the purposes of ERISA's preemption (and certain other) provisions, a strong case can be made that ERISA preemption of state payroll or anti-garnishment laws would also apply to deemed Roth IRAs.¹¹

In contrast, it is much less certain whether employers could use automatic enrollment to direct employee contributions into rainy-day accounts at a depository institution. Such accounts would not be part of an ERISA-governed plan, and it is thus unclear whether automatic enrollment would violate state anti-garnishment laws, as they do not explicitly fall under the ERISA preemption described above. Another complicating factor for using automatic enrollment into depository institution accounts arises from federal laws designed to prevent bank and credit union accounts from being used to assist criminal or terrorist activities. These Know-Your-Customer (KYC) regulations require depository institutions to positively establish the identity of

¹⁰ 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, 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.

¹¹ 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).

the account owner before any account can be opened.¹² Such a requirement would seem to preclude automatic enrollment into depository institution accounts.

However, individual banks and credit unions have some flexibility in determining how to meet KYC regulations, and this flexibility could enable 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 rely on the employer to verify the identity of its employees through the documentation required to complete Form I-9 when a new employee is hired. The employer could then forward to the depository institution copies of the documents necessary to meet KYC requirements.¹³ 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. Only if the account owner started to deposit funds into the account would the KYC requirements be triggered. How KYC requirements are handled varies across banks and credit unions and could depend on their relationship to the employer sponsoring a rainy-day account.

Another potentially acceptable approach to KYC compliance would be to locate the rainy-day savings 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 savings 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 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.

Absent an ability to use automatic enrollment, employers could adopt alternative approaches to encourage participation in rainy-day savings accounts, such as requiring

¹² 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.

¹³ 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 institution making the loan.

employees to make an active choice about whether or not to participate. Such an active choice strategy has been shown to significantly increase participation in retirement savings plans relative to an opt-in enrollment scheme (Carroll et al. 2009).

Beyond the question of whether automatic enrollment into rainy-day savings accounts is permissible, there are also several operational issues to consider vis-à-vis automatic enrollment and rainy-day savings accounts. While almost all recordkeeper firms that service 401(k) plans offer automatic enrollment as an option, some have expressed concern about their ability to automatically enroll individuals into two different types of accounts that have different tax treatments. Implementing the necessary operational and record keeping system changes would likely involve both time and costs, and the required changes are likely more difficult and/or costly if a deemed Roth IRA were used as the rainy-day savings account rather than an after-tax 401(k).¹⁴ But there are reasons to believe that these costs would not be prohibitive. A number of states and one city have enacted legislation that requires employers that do not sponsor tax-qualified retirement plans to automatically enroll their in-state employees into government-facilitated, private-sector IRAs to which employees would be connected through the workplace; three of these states have already begun to implement their programs. Although the IRAs in the state programs are payroll deduction IRAs (mostly Roths) unrelated to any employer plan, rather than deemed Roth IRAs that are associated with employer plans, there are enough similarities to give assurance that using a deemed Roth IRA for a rainy-day vehicle is operationally feasible.¹⁵

One issue that may concern some 401(k) plan sponsors that do not use automatic enrollment is whether the choice not to use automatic enrollment in the retirement plan would negate the option to use automatic enrollment into a rainy-day account. This could be an issue regardless of the type of rainy-day savings account under consideration. While many 401(k) plans use automatic enrollment,¹⁶ a plan sponsor that has chosen not to adopt automatic enrollment for pre-tax 401(k) contributions might think there is even less reason to automatically enroll employees into rainy-day accounts, especially if they are less tax-advantaged. (We discuss tax considerations more fully later.) Some sponsors might wonder whether the use of automatic

¹⁴ 69 Fed. Reg. 43,738 (July 22, 2004).

¹⁵ 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).

¹⁶ E.g. Gale, Iwry, John, and Walker (2009).

enrollment for after-tax emergency savings but not retirement savings could be misinterpreted as encouraging employees to contribute on a less tax-advantaged basis, potentially exposing the plan sponsor to criticism and litigation. In addition, if auto-enrollment into an after-tax rainy-day savings account crowded out an undue proportion of pre-tax retirement saving by non-highly compensated employees, 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 saving and might actually feel more comfortable automatically enrolling employees into an emergency saving account because it would be more liquid than a pre-tax retirement account.

If the retirement plan offers a match, employers might be concerned that the use of automatic enrollment for emergency savings instead of raising the default pre-tax contribution rate could be misinterpreted as encouraging employees to make contributions that reduce the employer's matching cost (and therefore are less advantageous to employees). This too could expose plan sponsors to criticism and litigation. We discuss the role of employer matching later in this paper and one approach to mitigate this potential concern.

The household income limits on eligibility to contribute to a Roth IRA and the annual dollar limits on IRA contributions (which are far lower than those for 401(k) contributions) present additional—but not insuperable—challenges for the use of automatic enrollment with a deemed Roth IRA as the emergency savings vehicle. The plan sponsor generally would not know an employee's household income or an employee's contributions during the year to other IRAs (although employers of employees who have multiple jobs during a year also do not know the employees' contributions during the year to another 401(k) plan). 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 to opt out of automatic enrollment into a deemed Roth IRA.¹⁷ Yet this responsibility to avoid contributing if income exceeds the Roth

¹⁷ 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 various 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 do have access, the issue of ineligibility by reason of income is likely to arise less frequently

IRA limits or if IRA contributions would exceed the annual IRA contribution dollar limits already rests with the individuals contributing to Roth IRAs (not only deemed ones).

B. Rainy-Day Account Balance Target and Implications of Meeting That Target

There are two related questions relevant to all three types of rainy-day saving account structures: (i) whether and at what level to set a target account balance, and (ii) whether and at what level to cap the amount savers can hold in the account. A rainy-day account could have neither a target nor a cap, a target and a cap that are the same, or a target that is lower than the cap.

While tax-qualified retirement plans have annual contribution limits, they do not come with target savings amounts or caps on the amount that can be accumulated. Why should rainy-day accounts be any different? The rationale is that a rainy-day account target amount communicates to savers the value of accruing at least a certain amount of rainy-day savings, although the value of this message could backfire if the target amount is too low. The rationale for a rainy-day account cap is that the investments used for such accounts will likely have a lower expected return than the investments used for long-term savings in a retirement account, and the account structures have less favorable tax treatment than a tax-qualified retirement plan. Once a certain level of rainy-day savings has been attained, most savers would be better off having their marginal savings allocated to an account with a higher expected return and more favorable tax treatment.

How should we think about what an optimal target or cap amount might be? Many studies of consumers' ability to handle a financial emergency measure whether a household could easily come up with 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 such as a car repair, modest

in an automatic IRA program (and is likely to most affect business owners, who can usually more readily fend for themselves).

In the context of a qualified plan using deemed Roth IRAs for emergency savings, employees who are ineligible to contribute to Roth IRAs because of income 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).

home repair, appliance replacement, or non-catastrophic out-of-pocket health expense (Board of Governors of the Federal Reserve System 2019, FINRA 2019). Other normative benchmarks for rainy-day savings also account for the risk of more severe events, like a long spell of unemployment, a major medical expense, or a major uninsured home repair such as property damage from flooding. Typical rules of thumb allowing for these types of contingencies are often expressed as a proportion of annual earnings, such as savings equal to three, four, or six months of take-home pay.

Based on this range of normative benchmarks, we think it 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 or account cap with the advice that financial planners tend to give—three to six months of income.

Employers could choose both a savings target and a savings cap (in either dollar terms or as a fraction of pay), or they could allow employees to select these amounts. If automatic enrollment is used for the rainy-day account, employers would need to specify a default target and cap, and employees could then be allowed to select a different target and cap if desired. Employers could choose an infinite target and cap (as is the case with retirement plans) but would likely be reluctant to do so due to fear of criticism and litigation risk for encouraging employees to hold large rainy-day account balances that have lower expected returns and less favorable tax treatment than other 401(k) plan balances.

If rainy-day accounts are set up with a savings target and/or cap, what happens when these thresholds are met? One possibility is that the contributions to the account are reduced once rainy-day balances exceed the target and are stopped completely once they reach the cap. If the rainy-day account is linked to a retirement savings account, another option is for the split of contributions across the two accounts to dynamically adjust according to how much is in the rainy-day account.

For example, suppose that an employer automatically enrolls employees into both a 401(k) plan and a rainy-day account, with a default total contribution rate of 10% of pay across the two accounts. The initial allocation of the default contribution rate is 6% to the pre-tax 401(k) account and 4% to the rainy-day account. Once the rainy-day savings target is met,

contributions could adjust so that 8% goes to the 401(k) plan, and 2% goes to the rainy-day account. And if the rainy-day account cap is reached, all contributions would be directed to the 401(k) account. (The time it takes to reach either the target or the cap 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 level of the target and the cap.) Redirecting part of or all future contributions to the retirement account upon reaching the rainy-day target or cap would increase retirement saving while also keeping the individual's aggregate (retirement plus rainy-day) contribution level the same from pay period to pay period. If the rainy-day account balance fell below the target because of withdrawals or pay increases, future contributions would revert back to 4% to the rainy-day account and 6% to the 401(k) until the threshold had been met again. Contribution escalation could also be used to gradually increase total contributions across the two accounts in a predictable fashion.

Under this type of scheme, employees could elect their own target and cap amount, and could also elect how to allocate contributions between the rainy-day and the 401(k) plan before the rainy-day target is met, and when their balance is between the target and the rainy-day account cap. A consideration that affects the range of implementable contribution rates is the legal limit on annual contributions to each type of account. For depository accounts, there is no legal limit on annual contributions, and most depository institutions would likely be keen to maximize balances in these accounts rather than limit them. In contrast, both a deemed Roth IRA and an after-tax rainy-day account would have annual contribution limits. For an after-tax account, these limits are high enough that they are unlikely to be binding for most potential savers: the sum of pre-tax, after-tax, and employer contributions cannot exceed \$56,000 in 2019 (this amount is indexed annually) for workers under age 50, and \$62,000 for workers age 50 and above.¹⁸ While the annual contribution limit on a deemed Roth IRA is much lower than for an after-tax 401(k) account—\$6,000 in 2019 for individuals under age 50, and \$7,000 for individuals age 50 and over (these amounts are also indexed annually)—the majority of rainy-day savers are unlikely to be constrained by these annual contribution limits.

Redirecting contributions to maintain a target rainy-day balance would introduce some additional operational complexity, especially because the rainy-day account will have different

¹⁸ In addition, the combination of employee-elected pre-tax and Roth contributions, employee after-tax contributions, and employer contributions cannot exceed 100% of employee compensation.

tax treatment than the retirement account and may be located at a different provider (e.g., a depository institution). 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 linking the rainy-day and retirement saving accounts but would substantially reduce the variation in rainy-day contribution flows across pay periods. Treasury and the IRS could also provide a more forgiving administrative correction regime for linked rainy-day and retirement savings plans, as they have done to address plan sponsor and provider concerns about potential administrative errors when using automatic enrollment and automatic contribution escalation for pre-tax and Roth 401(k) contributions.¹⁹

C. Investment Allocation of Rainy-Day Account Balances

Plan sponsors will need to decide what investment options would be available in a rainy-day account. If there is more than one option, what will be the default option for participants who don't make a choice?

The short-term nature of rainy-day accounts and the importance of ensuring that funds are readily available in times of need will suggest to many plan sponsors that these accounts should be invested in a fairly conservative manner, forgoing the potential for significant investment gains in the interest of protection from investment losses. Depository institution accounts would certainly be a good option to satisfy this objective: the accounts preserve principal, and because they don't come with investment options, they are simple to explain and to administer. Almost all high-liquidity bank and credit union savings accounts pay a regular interest rate set by the depository institution. The interest rate is likely to be low, although accounts with higher deposit levels might earn a higher interest rate. The interest, like most deposit account interest, generally will be taxable in the year in which it is earned.

Although a Certificate of Deposit (CD) would yield a higher interest rate than a traditional bank or credit union savings account, CDs require the funds to be on deposit for a set period of time, and early withdrawals usually result in a penalty, which could decrease the principal in the account. This makes CDs a less appropriate investment for rainy-day accounts,

¹⁹IRS Revenue Procedure 2015-28.

whose purpose is to help households address unexpected expenditure needs that could arise at any time.

Rainy-day accounts in a bank or credit union would also be covered by federal deposit insurance, so balances up to the maximum deposit insurance level (generally \$250,000, far in excess of a plausible rainy-day savings target) would not be at risk of loss. This may not be true if a stored value card is used as the vehicle for rainy-day accounts; if issued by a non-depository financial institution, coverage by federal deposit insurance would depend on whether or not the money is deposited in a bank or credit union account. In the event that a stored value card without federal deposit insurance is used, savers should be clearly and regularly notified that the FDIC and the NCUA do not insure the accounts. Balances in an after-tax 401(k) or deemed Roth IRA account would also not be protected by federal deposit insurance.

Locating a rainy-day account under the umbrella of an existing 401(k) plan either through an after-tax account or a deemed Roth IRA would give rise to some additional considerations. Relative to deposit institution accounts, these types of accounts could allow participants a choice of investments, as is the case for tax-qualified defined contribution retirement savings plans. However, they would not be required to do so, and could instead opt to designate only a single investment option. If participants are given a choice of investments, the choice set could be the same as in the retirement plan, or plan sponsors could offer a different set of options for the rainy-day account. One motivation for giving participants investment choice is the limitation on fiduciary exposure under ERISA when investments are self-directed by plan participants from among a set of options specified by the plan.

Tax-qualified retirement plans that use automatic enrollment must designate a default investment option for contributions made by employees who do not affirmatively elect an investment allocation. Plan sponsors 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 the Employee Retirement Income Security Act (ERISA).²⁰ The most widely used QDIA is a target date or life cycle fund, although some plans use either managed accounts or balanced funds, both of which are also QDIAs under the Department of Labor regulations (Vanguard 2019). If a plan sponsor uses automatic enrollment to encourage rainy-day savings contributions and is concerned about

²⁰ 29 CFR section 2550.404c-5.

potential fiduciary liability for the default investment, it might prefer to use a QDIA as the investment default (for simplicity, potentially the same QDIA the plan uses for pre-tax employee contributions). These QDIA defaults, however, all expose participants to investment risk, and in particular, there is potential for loss of principal (except for a limited, 120-day short-term exception, principal-protected investments are not a permitted QDIA).²¹ For retirement savings accounts, the Department of Labor deemed this appropriate, because the value of a higher expected return outweighs the risk of principal loss over longer horizons. But some plan sponsors may have qualms about whether it is appropriate to use one of the approved QDIA investment options as the default for a rainy-day account, where the investment objective is quite different from that of a retirement savings plan.

Plan sponsors might consider forgoing the limited protection of the Department of Labor's QDIA regulations and designate a single safe investment for either an after-tax or a deemed IRA rainy-day account without allowing employees any choice of investments. Before the QDIA regulations were finalized near the end of 2007, a considerable number of 401(k) plan sponsors used automatic enrollment, and the most commonly designated default was a principal-protected investment (Deloitte 2007). Some employers might bring a similar confidence to the choice of a principal-protected fund as the default investment for an after-tax or deemed IRA rainy-day account, especially given its short-term nature.

The Department of Labor's automatic rollover regulations might give some additional comfort for those making such a choice. Those regulations establish a fiduciary safe harbor for ERISA-governed plans that automatically roll terminated participants' balances, not exceeding \$5,000, into an IRA (unless a participant affirmatively elects otherwise) 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."²² The preamble to the regulations states that the rationale for limiting the safe harbor to principal-protected investments

²¹ 29 CFR 2550.404c-5(e)(4). Some might wish to explore the possibility of persuading the Department of Labor 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 a target date fund and balanced fund under the QDIA regulations do not prescribe limits on the mix between fixed income and diversified equity exposures or other asset classes.

²² 29 CFR 255.404a-2(c)(3)(i).

in this case (in contrast to the approved QDIAs) is that the amounts being invested in these automatic rollover instances are limited to \$5,000. A plan sponsor imposing a similar or lower cap 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 is usually not consistent with the savings target of several months of income that many financial planners recommend. Some plan sponsors might also conclude that the amounts of emergency savings balances and investments would be sufficiently limited, either in practice or through an explicit cap, that class action litigation seems relatively unlikely and that the liability exposure seems manageable.

D. Fees and Expenses Associated with Account Administration

With each of the account structures considered, there ordinarily will be fees associated with account administration. In the case of after-tax employee contributions or deemed Roth IRAs, the potential investment options all come with management fees. Rainy-day savings provided through after-tax employee contribution accounts in 401(k) plans can benefit from reduced costs associated with an employer-sponsored plan's group purchasing power and economies of scale in administration and investment. While a tax-qualified, ERISA-governed retirement plan might contain various subaccounts for each participating employee representing different kinds of contributions, all of the subaccounts are ordinarily held in a single trust and can be collectively invested.

IRAs ordinarily would not benefit from such arrangements, but the deemed Roth IRA approach can make this possible by managing the IRAs in a collective and relatively uniform fashion in conjunction with the qualified plan. One example is account structures under the umbrella of a 401(k) or other retirement savings plan that can invest assets on a commingled basis in the same trust as the qualified plan's other investments (while still accounting separately for each participant's contributions, earnings, and subaccounts).²³ The deemed IRA rules permit

²³ 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.

commingled investment of deemed IRA assets with other plan assets, potentially creating cost efficiencies for the plan and simplifying the linkage of the main plan and the rainy-day account.

In the case of deemed Roth IRA as rainy-day account, the advantages of commingling investments might be weighed against a possible concern that, if any commingled deemed IRA violated the IRA requirements, all deemed IRAs might be treated as noncompliant with those rules, potentially calling into question the qualified status of the entire plan. While a plan sponsor might conclude that it is not concerned about the risk of “contagion” (largely because of its control over the design and operation of the deemed IRAs), such a risk could be avoided by investing the assets of each deemed IRA in a separate trust (separate from the qualified plan and the other deemed IRAs).²⁴

Depository institutions tend to charge monthly account maintenance fees, especially if the account has a low balance. 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, and transfers to another account. These fees can vary widely. Some banks require a minimum deposit of hundreds or even thousands of dollars to earn interest and may also charge a monthly fee to maintain the account if balances are not sufficient.^{25,26} In contrast, certain online banks have no monthly fees and no minimum deposit for opening accounts. Credit unions generally have lower and fewer fees than commercial banks, and many 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.

Fees are also a concern with stored value cards; some charge fees for any withdrawal, for failing to use the account within a specified period of time, and for other types of transactions. Payroll cards are growing as a mechanism 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. They have, however, come under scrutiny for a 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

²⁴ Treas. Regs. section 1.408(q)-1(g).

²⁵ See <http://rates.savingsaccounts.com/savings-and-money-market-accounts>

²⁶ 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.

who can least afford to pay them. However, the Consumer Financial Protection Bureau (2017) has issued new disclosure requirements designed to improve consumers' understanding of card fees.

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 and other favorable terms.

Plan sponsors use a variety of approaches to cover administrative and investment costs in retirement plans that could also be used for rainy-day accounts. Some plans effectively force employees to shoulder the costs of plan administration through higher fees (and consequently lower returns) on investments. Others subsidize part or all of the costs of plan administration but not investment management. And still others charge participants an annual account fee to cover administrative costs. An emergency savings account with a modest target balance might never experience positive earnings net of administrative expenses. For example, if the target (and maximum permitted) account balance were \$2,500 and account expenses were \$50 per year,²⁷ net positive earnings would not occur unless annual returns exceeded 2 percent. A plan sponsor might consider protecting participants from any diminution of their account balances by covering any expenses that exceed earnings.

E. Employer Match on Rainy-Day Account Contributions

Plan sponsors may want to consider providing an employer match on employee contributions to the rainy-day account. If the employer is using a depository institution rainy-day account, it might also be able to seed the account with an initial deposit (a non-contingent employer contribution) or a series of deposits over a certain length of time while also encouraging employees to contribute.

²⁷ 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.

Employer contributions to retirement savings plans are important in helping employees build financial resources for a secure retirement.²⁸ They can also create an incentive for reluctant employees to participate in a retirement savings plan, or to contribute more to the plan, although there is mixed evidence on how large these effects are (Madrian 2013, Choi 2015). A match on contributions to a rainy-day account might play a similar role. In the case of a bank or credit union rainy-day account, such a match could be deposited into the account to supplement an employee’s own rainy-day savings. Alternatively, if the employer sponsors a 401(k), the match could be directed into a traditional pre-tax employer contribution account. This latter approach would simultaneously facilitate both short-term (rainy-day) and longer-term (retirement) saving for employees. Survey research suggests that either location for the match would be acceptable to employees and would encourage them to contribute to a rainy-day account (Harvey et al. 2018). While most 401(k) plans provide an employer match, there are a number of special considerations to bear in mind when considering whether to match employee rainy-day contributions, and if so, where to direct the match.

The most straightforward option is to deposit the match into the same account that holds the employee’s own rainy-day contributions. This is an option for a depository institution rainy-day account, but not for an after-tax rainy-day savings account (and a potentially complicated possibility for a deemed Roth IRA), for reasons we discuss below. In the case of a depository institution rainy-day account, both a non-contingent employer contribution and an employer matching contribution are feasible, and there would be no special constraints on these contributions, although both would be considered taxable income to the employee when made.²⁹

If the rainy-day account were a deemed Roth IRA, employer contributions to that account would be highly unusual. While the possibility of an employer contribution to an IRA is recognized in the Internal Revenue Code, and it is not clear that anything would preclude an employer from matching employee contributions to a deemed Roth IRA rainy-day account,³⁰ this would be sufficiently uncharted territory that plan sponsors are unlikely to be interested in

²⁸ Employer 401(k) matching 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% of pay (Vanguard 2019).

²⁹ We think that few if any employers would be willing to pay the tax on matching contributions for the employee. In addition to the cost, such a “gross-up” of taxes would be challenging to administer and could set a precedent that most employers would wish to avoid.

³⁰ The Internal Revenue Code does not prohibit employer matching contributions to an IRA, nor does it affirmatively allow for them. (It does not explicitly refer to matching contributions to an IRA.)

pursuing it, given that any use of a deemed Roth IRA would already be somewhat novel. If a plan sponsor were to try it, it appears that employer contributions to an IRA would be treated as employee contributions to the IRA for tax purposes and presumably would be accorded Roth IRA tax treatment.³¹ These employer contributions would also count towards the annual dollar (and compensation) limits on an individual's contributions to an IRA.³²

Current qualified plan rules do not allow employer contributions (either a non-contingent contribution or an employer match) to be deposited into an after-tax employee contribution account. Employer contributions matching an employee's after-tax contributions would be made instead to the pre-tax employer contribution account under the qualified plan.³³ Such contributions generally would be non-taxable when made but fully taxable (including any earnings) as ordinary income when withdrawn.

Employers using deemed Roth IRA or depository institution rainy-day accounts could similarly direct a match on employee contributions to a pre-tax employer contribution account. These employer contributions 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) because they would not be conditioned on employee contributions to the qualified plan (either pre-tax or after-tax employee salary reduction contributions). Accordingly, they would likely be subject to the qualified plan rules governing employer nonmatching (nonelective) contributions.³⁴

³¹ 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.

³² IRC section 219(f)(5).

³³ 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.

³⁴ See Treas. Regs. section 1.401(m)-1. 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). While uncertain, there might also be a possibility that a plan sponsor 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 next two paragraphs of the text regarding taxable employer matching of after-tax employee contributions.

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” 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).

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—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 contribution 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).

If employers match contributions to both a retirement and a rainy-day savings account, the matching formulas could be the same for both types of contributions or different. If the match rate is different, many employees would likely contribute first to the account with the higher match, both because of the greater financial incentive to do so and because the higher match would likely be interpreted as an employer recommendation regarding the preferred type of saving. Employers wishing to remain agnostic could treat contributions to the retirement and rainy-day accounts symmetrically by matching contributions to both at the same rate and directing the match on both types of saving into a pre-tax account; this would not advantage one type of saving over another. Employers concerned about the incremental cost of providing a match on rainy-day savings in addition to a match on retirement savings could calculate the

match using the *sum* of the employee contributions to the rainy-day and retirement accounts up to the plan's existing 401(k) match threshold.

One potential issue with matching rainy-day contributions is the longstanding concern that, without appropriate constraints, an employee could game the system through “churning”—making contributions chiefly to earn an employer match and then withdrawing them as soon as possible, rather than keeping them in the account until needed for emergency purposes. Because matching contributions in 401(k) plans are accorded preferential tax treatment, there are restrictions in place to discourage this type of activity, with the primary restriction being that the withdrawal of pre-tax contributions while a participant is still employed is limited to instances of documented financial hardship. Historically, employees making such a hardship withdrawal were further subject to a six-month suspension on either contributing to or receiving employer contributions to the 401(k) plan.³⁵ However, 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).³⁶

Employers are also required to discourage churning of after-tax employee contributions as part of a tax-qualified plan *if* those contributions are matched, presumably because the matching contributions are accorded preferential tax treatment.³⁷ IRS rulings in the 1970s approved a six-month suspension of future contributions following a withdrawal of matched after-tax employee contributions. However, this type of restriction is problematic from the standpoint of trying to encourage sufficient savings in a rainy-day account that is intended to be used in the short term if needed. A plan sponsor might consider whether other restrictions could prevent or discourage such manipulation without defeating the basic liquidity purpose of the emergency savings account. Although the rulings seem to contemplate the possibility that other kinds of restrictions might be permitted to meet the requirement to discourage withdrawals of

³⁵ 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. See footnote 36.

³⁶ 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.

³⁷ There is no such requirement for after-tax accounts without an employer match.

contributions that have been matched (e.g., forfeiting a portion of the employer match, or other limitations on the match), the lack of clarity on what alternatives might be acceptable could discourage plan sponsors from providing an after-tax rainy-day account that is matched by employer contributions.³⁸

Because the anti-churning rules do not apply to withdrawals from accounts that are not part of a tax-qualified plan, withdrawals from a matched deemed Roth IRA or depository institution account would not be subject to these restrictions. One of the authors has requested that Treasury issue guidance either declaring obsolete the six-month-contribution-suspension rule following 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. It is worth noting that 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).

F. Employee Access to Rainy-Day Account Balances

A rainy-day account is of little use if balances cannot be easily and quickly accessed when needed, and survey research suggests that consumers see easy access to their rainy-day account balances as a desirable feature (Harvey et al. 2018). At the same time, if these resources are too easily accessible, individuals may be tempted to tap them when they feel a desire to splurge rather than hold off until a real need arises.

Of primary importance to many individuals will be *how* to access the funds in a rainy-day savings account. Rainy-day accounts held at a depository institution or through a stored value or payroll card would allow nearly instantaneous access. Most banks and credit unions operate branches that allow customers to withdraw cash or obtain a money order or cashier's check from

³⁸ See IRS Revenue Rulings 74-55, 74-56, and 72-275. 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 do not permit such a suspension in the event that matched employee after-tax contributions are 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.

their accounts directly from the institution, with few limitations. Most also allow direct cash withdrawals from both their own ATMs and those operated by other networks. ATMs give consumers access to their accounts after business hours, although there are limits on both the amount that can be withdrawn in a single transaction and the amount that can be withdrawn over a 24-hour period (and often a fee). Access to amounts above these limits requires visiting a physical branch during regular business hours, initiating an electronic transfer to a transaction account, or the ability to make payments out of the account online or over the phone. Savings accounts are designed to allow the rapid transfer of funds to a transaction account, and such transfers can be initiated at a branch, through websites and phone apps, at ATMs, and over the phone. While some transfers could be nearly instantaneous, others might take a few days to process, e.g., to an account at another financial institution. Another factor limiting the liquidity of funds in a depository institution rainy-day account is federal regulations that cap the number of savings account withdrawals of certain types that can be made each month.^{39,40}

Fund access is likely to be more cumbersome for rainy-day accounts that are established as part of a 401(k) plan. Neither after-tax employee contribution accounts nor IRAs (including deemed IRAs) have traditionally been designed or offered for the purpose of allowing rapid and potentially frequent disbursements. Employees would not typically have immediate access to balances through an ATM; rather, withdrawals would likely need to be initiated online or through filling out a form that would then need to be processed, and receipt of funds could take a few days. 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 systems.

For emergency savings purposes, both after-tax employee contribution accounts and deemed Roth IRAs are more liquid than pre-tax retirement savings accounts, which allow current employees to make withdrawals only in the case of documented financial hardship or through a loan which comes with repayment terms and possibly other restrictions. Withdrawals from a deemed IRA can be made at any time and for any purpose with no restrictions on the reasons for or frequency of distributions. Withdrawals can also be taken from an after-tax employee

³⁹ 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.

⁴⁰ Depository institutions could also restrict access to funds in savings accounts based on account terms or major financial events, such as institutional failure, although in practice consumer savings accounts are rarely affected.

contribution account for any reason and at any time, although if matched, other restrictions might apply (e.g., on future contributions), as described in the previous section.

If plan sponsors are concerned that individuals may not use a rainy-day savings account for its intended purpose, and instead just use it as another transaction account for everyday expenditures, they could impose additional restrictions on the ability of participants to access rainy-day account balances. For example, they could impose a minimum dollar withdrawal threshold, 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. 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.

Although such restrictions would reduce the potential for misuse of the rainy-day account, they might also reduce employee interest in having such an account. Having fewer restrictions would be less costly from an administrative standpoint; it would also make the plan easier to explain to participants, easier for participants to understand, and probably also easier and more attractive for them to use.

In practice, the restrictions imposed by federal regulations on the number of withdrawals per month from a savings account may prove sufficient to discourage misuse of rainy-day accounts in a depository institution. In addition, some plan sponsors might conclude that the regular withdrawal fees that the plan or its recordkeeper routinely charges participants to help recover the costs of processing plan withdrawals create about the right amount of transaction cost to discourage participants from using the rainy-day account as if it were a regular checking account. In addition, framing the arrangement as an emergency savings account that the employer has established solely for that purpose will create some psychological friction against using balances for other purposes, and that friction should also help discourage excessive withdrawals (see Zhang and Sussman, forthcoming). Employers would need to weigh these considerations before deciding whether to add (or accept) restrictions on or frictions to accessing rainy-day account balances. A field experiment may be useful in weighing these countervailing considerations.

Another liquidity-related design issue is how, if at all, to coordinate emergency savings withdrawals with potential access to pre-tax elective retirement plan contributions. One concern

some may have is that creating too close a linkage between rainy-day and retirement savings plans may facilitate retirement savings plan withdrawals by increasing employee awareness that this is an option. As discussed earlier, however, we believe the more likely outcome is that having an emergency savings account will actually reduce pre-retirement leakage out of retirement savings plans by giving employees an alternative source of liquidity for small to moderately-sized financial shocks. Explicitly earmarking an account for rainy-day savings will focus employees on that account first when an emergency arises, as will the fact that withdrawals are relatively easier from a rainy-day account than from a retirement savings account, and might possibly also be subject to more favorable tax treatment (discussed below).

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. The first-order effect of having a rainy-day savings account should thus be to reduce hardship withdrawal requests. Only if the amount in the rainy-day account is insufficient for a given need would an employee be able to 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 permits loans, and the way the plan coordinates hardship withdrawals and loans (which some plans restrict to purposes that would otherwise justify a hardship withdrawal).⁴¹

G. Tax Considerations

The tax treatment of a rainy-day savings account would vary across the three account structures considered in this paper. Because they are outside of a tax-qualified plan and do not qualify for any tax preferences, depository institution rainy-day accounts would have the most straightforward tax treatment. As with other bank accounts, deposits would be made on an after-tax basis, earnings would be taxable income in the year received and would be reported as such to taxpayers and the IRS, and withdrawals would be non-taxable. Any employer contributions would be taxed on the same basis. Because neither contributions nor earnings would be taxed at

⁴¹ See footnote 36, above.

the time of withdrawal, there would be no tax-related need to determine how much of a given withdrawal should be treated as a return of previous contributions versus earnings, which would help simplify administration. While some sort of tax incentive might encourage saving in depository institution rainy-day accounts, it would require legislation and potentially add complexity to their tax treatment.

In the case of an after-tax rainy-day account, employee contributions would be made on an after-tax basis, but in contrast to contributions to a depository institution account, earnings in an after-tax account would not be taxable as they accumulate; they would be taxed only when withdrawn from the plan. Amounts withdrawn from an after-tax account are treated as consisting of two parts for tax purposes: a nontaxable distribution of employee contributions,⁴² and a taxable distribution of earnings on those contributions. The allocation of withdrawals between nontaxable contributions and taxable earnings is done in proportion to the cumulative amounts of those contributions and earnings held in the after-tax account as a whole at the time of the withdrawal.⁴³ Unless there are no earnings, any withdrawal from an after-tax employee contribution account will be partially taxable in the year of the withdrawal. Withdrawals of earnings are taxable at ordinary income tax rates and would likely be subject to a 10 percent early withdrawal penalty if withdrawn before age 59½; in addition, they would likely be subject to 20 percent tax withholding at the time of the withdrawal.⁴⁴ (This withholding is not additional tax, but 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.⁴⁵) Depending on when a withdrawal is made and the cumulative investment returns in the account, earnings may constitute only a small fraction of account balances, and the associated tax liability might be quite small. Nevertheless, account holders would need to be informed about the tax consequences of withdrawals in advance.

⁴² Employee contributions can be withdrawn tax-free because they were taxed when contributed.

⁴³ 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).

⁴⁴ There are exceptions to the 10 percent tax penalty (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).

⁴⁵ 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.

As noted earlier, employer contributions that are tied to an employee's contribution to an after-tax rainy-day account normally would be deposited into a pre-tax employer contribution account under the qualified plan and be taxed accordingly. These employer contributions would not be counted as taxable income to the employee at the time of contribution; rather, at the time of withdrawal, both employer contributions and the accumulated investment returns on them would be taxable. As with the earnings on employee contributions in the after-tax account, withdrawals from the pre-tax employer contribution account would be taxable at ordinary income tax rates and would likely be subject to a 10 percent early withdrawal penalty; in addition, they would also likely be subject to 20 percent tax withholding. (Note that the same would be true if employers with a depository institution or a deemed Roth IRA rainy-day account decided to make matching contributions to a qualified plan pre-tax account.)

The complexity of the taxation associated with an after-tax rainy-day account is one drawback to this type of account structure. While some employees might pay little or no attention to the tax consequences of a rainy-day account, and some might even regard the tax requirements as a useful friction that discourages withdrawals for nonemergency purposes, others might find these adverse tax consequences an unwelcome complicating factor. Regardless of employee opinion on the tax consequences, the necessary disclosure of these relatively complex rules could undermine the appeal of the arrangement.

In the case of a deemed Roth IRA rainy-day account, employee contributions would also be made on an after-tax basis. Earnings are not taxable as they accumulate. Withdrawals are treated as consisting of two parts for tax purposes: a nontaxable distribution of employee contributions, and a potentially taxable distribution of earnings on those contributions. 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 an after-tax employee contribution account (as described above) or a Roth 401(k) 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, which are nontaxable, until the employee has withdrawn the full amount of those contributions. If the employee withdraws more than the amount of the employee's contributions, only the portion in excess of those contributions is treated as potentially taxable

earnings.⁴⁶ That portion would be taxable unless it satisfied the 5-year and other requirements for tax-free treatment of withdrawals of Roth account earnings. Any taxable portion of a deemed Roth IRA withdrawal would be potentially subject to the 10 percent additional tax on early withdrawals that applies to pre-tax and after-tax qualified plan accounts, but the 20 percent mandatory withholding rules do not apply to IRAs.⁴⁷

Relative to an after-tax account, the more favorable tax treatment of deemed Roth IRAs should simplify the communications to employees regarding withdrawals that do not exceed the amount of contributions to the deemed IRA account. The messaging to employees could explain that withdrawals are 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 exempt from 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.⁴⁸

H. Portability and Consolidation of Rainy-Day Balances When Employees Change Jobs

Another design issue that arises for employer-sponsored savings plans is what happens to rainy-day accounts when an employment relationship terminates. 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 option, 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.⁴⁹ In addition, if a series of job changes leaves

⁴⁶ IRC section 408A(d).

⁴⁷ IRC section 3405(c).

⁴⁸ IRC section 3405(c).

⁴⁹ 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

people with multiple rainy-day accounts, consolidation of those accounts would be helpful for many. The portability and consolidation options for the rainy-day account structures we consider are all different from each other.

Of the three options discussed in this paper, the depository institution account and the deemed Roth IRA are highly portable and amenable to consolidation. Because individuals can, on their own, open a bank or credit union account and use it for rainy-day savings, most terminated employees would have the option of either continuing to retain such a rainy-day account at the depository institution holding the account, or transferring the funds to an existing or new account at a different institution (either an individual depository institution account that involves no employer facilitation or to another employer-facilitated depository institution rainy-day account). This could, however, require that certain steps be taken. For instance, if the account or stored value card was opened without meeting federal Know Your Customer requirements (see discussion earlier in the paper), the depository institution will need to comply with those rules before it can hold the account without being part of an employer-facilitated program.

An employee who converts an employer-sponsored rainy-day account to individual ownership with a depository institution might be exposed to higher fees and new restrictions if the employer was able to negotiate lower fees and other special terms with the provider. To the extent practical, 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.

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

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).

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% additional 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.⁵⁰

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.

A terminating employee with an after-tax employee contributions rainy-day account could roll it over to another employer-sponsored plan that accepts rollovers and accounts

⁵⁰ IRS Notice 2014-54.

separately for the after-tax employee contributions it receives.⁵¹ If so, even if the new plan sponsor was not trying to explicitly facilitate the use of after-tax accounts for rainy-day savings, the individual could still use the account at the new plan for this purpose. If a new employer did not accept a rollover of after-tax employee contributions to its plan, or if the employee did not want to roll over into a new employer's plan, the terminating employee could roll the after-tax rainy-day account over to a stand-alone Roth IRA, as discussed above for a deemed Roth IRA rainy-day account.

I. Compliance Issues

Regardless of which rainy-day account structure an employer uses, it will need to comply with certain rules. We have already mentioned compliance issues that would be relevant to depository institution rainy-day accounts, including the relevance of state wage anti-garnishment laws for the ability of plans to use automatic enrollment, and the Know Your Customer requirements.

An after-tax rainy-day savings account that is part of a broader tax-qualified retirement savings plan⁵² would need to comply with a set of rules designed to prevent discrimination in favor of highly compensated employees.⁵³ (Highly compensated employees and non-highly compensated employees are referred to here as "HCEs" and "NHCEs," respectively.) Among

⁵¹ IRS Notice 2014-54.

⁵² 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 to be 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).

⁵³ 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).

other things, these rules apply to the amounts and rates of pre-tax employee contributions, after-tax employee contributions, and employer matching and employer non-contingent contributions for HCEs and NHCEs. A plan generally is required to test for compliance with the nondiscrimination standards, although it can instead adopt a design-based safe harbor that excuses the plan from compliance testing if it conforms to a statutorily prescribed plan design.

Plans that have a design-based safe harbor and offer rainy-day saving using after-tax employee contributions would be prevented from using the safe harbor to avoid nondiscrimination testing completely. Instead, they would need to test those after-tax employee contributions for nondiscrimination. For plans without a design-based safe harbor, how an employee after-tax contribution rainy-day plan affects nondiscrimination testing compliance depends on how the plan is utilized. Greater utilization of the rainy-day plan by NHCEs relative to HCEs would tend to help the plan comply with the nondiscrimination test for employee after-tax contributions (the “actual contribution percentage” or “ACP” test). Conversely, greater utilization by HCEs than NHCEs would likely make compliance more difficult. A plan sponsor could avert this risk by limiting eligibility for the after-tax emergency savings account to NHCEs because the nondiscrimination rules generally permit 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 save for emergencies on their own. Some plan sponsors might consider whether to mitigate both the nondiscrimination risk and the possible employee relations issue by automatically enrolling the NHCEs in the rainy-day account while making it available to HCEs only if they chose to opt in.

Another potential nondiscrimination testing issue is relevant to all three rainy-day account structures. With any rainy-day savings account, employee rainy-day contributions could displace pre-tax elective retirement plan contributions that employees would otherwise have made. This also could in turn reduce the employer match on those contributions. These reductions could make it harder for the plan to satisfy the separate nondiscrimination standards relating to pre-tax contributions (the “actual deferral percentage” or “ADP” test) and employer matching (combined with after-tax employee) contributions (the “actual contribution percentage” or “ACP” test). The impact of this potential crowd-out on nondiscrimination compliance would depend, among other things, on how the rainy-day account affects the pre-tax contributions of

HCEs relative to NHCEs. Rainy-day account sponsors would need to monitor such potential indirect effects. Should they arise, there are means of mitigating or managing them, such as making additional employer contributions for NHCEs, limiting HCEs' contributions, or adopting a design-based safe harbor.⁵⁴ An employer matching contribution made on the sum of employee contributions to the pre-tax and rainy-day accounts, rather than on contributions to the pre-tax account alone, could also mitigate any negative indirect impacts on nondiscrimination testing of employer matching.

Neither employee nor employer contributions to a deemed Roth IRA rainy-day account would directly factor into a qualified plan's nondiscrimination testing because IRAs are not subject to nondiscrimination standards.⁵⁵ However, if employer contributions to a qualified plan were provided to match employee contributions to a deemed Roth IRA, these contributions would be subject to the nondiscrimination rules governing employer *non*matching (“nonelective”) contributions, as noted earlier. Depending on the relative pattern of employer contributions on behalf of HCEs and NHCEs, this might either exacerbate or ease nondiscrimination compliance. This would also be true for a sponsor of a depository institution rainy-day account that chose to match those employee savings with employer contributions to its 401(k) plan.

IV. Assessing Potential Employer-Sponsored Rainy-Day Savings Account Structures

In Table 1, we summarize how each of the account structures fares relative to the relevant conceptual issues discussed in the previous section. No single account structure dominates across all dimensions. Rather, each account structure has strengths and limitations that, depending on employer circumstances and employee characteristics, may make it more or less appropriate.

For employers that do not have a tax-qualified retirement savings plan, a depository institution account is the only rainy-day savings option available. The biggest limitations of this account structure are the uncertainty about whether automatic enrollment could be used and how readily an employer-sponsored rainy-day account could comply with Know Your Customer

⁵⁴ 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.

⁵⁵ Treas. Regs. section 1.408(q)-1(c), (f)(6).a

regulations. For employers that have a tax-qualified retirement savings plan, another limitation is that coordinating contributions with the retirement plan could be complicated. Relative to an after-tax or a deemed Roth IRA rainy-day account, depository institution accounts do have several potential advantages: there is no legal limit on annual contributions; account balances would be covered by federal deposit insurance, would be fairly accessible in times of need, and could be augmented by employer contributions; tax treatment, while not favorable, is straightforward; and transferring money to another account or consolidating accounts following a job change should be relatively easy. This type of rainy-day account would make sense if the employer does not have a retirement savings plan, if the employer has a plan but does not desire to coordinate contributions across rainy-day and retirement accounts, if employee turnover is high so that portability concerns are important, if employee demographics are such that easy access is likely to be important, and if employees are likely to want to make relatively large annual contributions to a rainy-day account.

An after-tax account under a tax-qualified retirement savings plan is the most complicated of these options in terms of the tax treatment of withdrawals and potential nondiscrimination testing compliance issues. However, it has important advantages. Foremost is the ability to use the 401(k) plan infrastructure and to coordinate rainy-day contributions with pre-tax employee contributions and employer matching contributions to the 401(k). As with a deemed Roth IRA, automatic enrollment is likely an option, but the contribution limits are much higher for an after-tax account than for a deemed Roth IRA, which is another advantage. This type of account would make sense for employers that want to be able to coordinate the rainy-day account with their pre-tax retirement plan or whose employees are likely to be constrained by the contribution and income limits associated with a deemed Roth IRA.

A deemed Roth IRA is the most constrained option in terms of annual contributions, although for many employees this may not be a binding constraint. On the other hand, it has the most favorable tax treatment of the three account structures considered. On many other dimensions, it is a good intermediate option. This account structure might be attractive for employers that don't want to deal with the nondiscrimination testing issues of an after-tax approach, but who want the possibility of coordinating the rainy-day account with the pre-tax

retirement plan. It also would be helpful for an employee demographic not likely to be constrained by the deemed Roth IRA contribution and income limits.

V. 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 urgent pre-retirement expenditure needs. This is true regardless of whether the employer offers some form of workplace retirement savings plan. After considering 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—our view is that, at this early stage, each approach merits further exploration, including through pilot projects and experimentation: 401(k)-based rainy-day accounts for employees whose companies offer a 401(k), and rainy-day saving accounts at depository institutions for employees whose companies do not. Over time, rainy-day savings accounts might become an established feature of the benefits landscape.

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 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 perhaps a concern that asset building efforts will prove counter-productive by crowding out retirement savings and encouraging more concurrent debt-holding (e.g., see Beshears et al. 2019). But concerns such as these have not dissuaded hundreds of thousands of plan sponsors from choosing to sponsor retirement savings plans to compete effectively in the labor market and promote greater workplace productivity by addressing workers’ needs. 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 support or offer rainy-day savings accounts 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. There have been

signs of interest in establishing rainy-day accounts among some employers and financial providers. In the long run, new legislation might help make rainy-day savings accounts easier for employers to adopt and for employees to use.⁵⁶ Ideally, rainy-day accounts would allow for automatic enrollment, be easy for employees to understand and use, have tax advantages similar to those available to retirement savings, admit administratively simple employer matching, and avoid concerns about employer liability or undue administrative cost.

⁵⁶ 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 (115th 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 employer-sponsored rainy-day saving accounts 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 chilling creative activity in the market that might proceed but for inferences some might draw from pending legislative proposals that Congress must first clear the way.

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

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

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

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

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