

## Precautionary Liquidity and Retirement Saving<sup>†</sup>

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How do restrictions on account access affect the attractiveness of employer-sponsored retirement saving plans? “Precautionary liquidity” manifests itself as a preference for holding assets in an accessible form not because of any current liquidity need but because of a possible future need. Just as a precautionary saver will forgo current consumption and build up a buffer stock of savings to prepare for possible future needs, a precautionary liquidity demander will avoid investment options with limited access, such as accounts that cannot be tapped until retirement, in favor of more liquid alternatives.

Recent research on retirement plan design has considered the role of restrictions on preretirement withdrawals. Beshears et al. (2020) suggest that a social planner designing mandatory retirement accounts for a population of present-biased households should create a saving program that combines an illiquid investment vehicle, with no access until retirement, with a liquid counterpart that can be tapped for financial needs at any time. When saving plan participation is voluntary, however, restricting liquidity could reduce contributions and employee participation. While limiting access can reduce leakage of plan assets prior to retirement age, it can also lower contributions and trigger demand for

precautionary liquidity so that its total impact on retirement security is ambiguous.

We explore this issue using data on plan participation and withdrawals from France, where employer-sponsored plans offer both medium-term (MT) and long-term (LT) saving options.

### I. Context and Data

Voluntary retirement saving is less important in France than in the United States because most retirement income is provided through a public pay-as-you-go pension system. A program requiring employers to offer defined-contribution (DC) saving plans, launched in 1967, originally included only MT saving options. Contributions could be withdrawn after five years. LT retirement saving options came much later, in 2003.

Today, French firms with more than 50 employees are still required to offer MT investment options (in PEE, for *plan d'épargne d'entreprise*). They may also offer LT investment options (in PERCO, for *plan d'épargne retraite collective*). Access to assets in LT saving vehicles is restricted until retirement. There are hardship withdrawal provisions, which are more limited for LT saving vehicles than for MT ones, exacerbating the liquidity disparity. In 2016, 56 percent of French employees, according to the Direction de l'Animation de la Recherche, des Etudes et des Statistiques (2018), participated in these saving plans.

We analyze an administrative dataset (Amundi 2021) from one of the largest providers of DC plans in France. It includes information collected in 2017 on the saving choices of 645,966 active employees who are younger than 67, reside in France, receive variable remuneration during the year, and work at one of 1,583 sample firms with at least 50 employees. The average firm's workforce is 40 percent female, and the cross-firm average of the median worker's age is 45.6 years. The average across firms of the median worker's variable remuneration is

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€1,761. About one-third of firms offer LT saving vehicles in addition to mandatory MT options; roughly one-quarter offer employees the chance to purchase company stock in their saving plans.

The firm selects a collection of investment funds—ranging between 1 and 50 and averaging 7.2 at the firms in our sample—along with a default investment fund for the MT and, if offered, LT vehicles. The most common fund categories in the MT menu are balanced and diversified stock funds. The default MT fund must be a relatively low-risk fund: a money market, bond, or balanced fund. If the employer offers an LT option, the default investment must be a balanced life cycle fund. The employer may match contributions to different investment options at different rates, which can be as high as 300 percent. Firms may also offer company stock as an MT investment option. Unlike US firms, French firms may condition their matching rates on the worker's asset allocation.

If the employee takes no action, variable compensation is automatically deposited in the firm's default investment option. Three-quarters of saving plan participants in our sample opt out of the default and make an active choice. The default may not include employer stock. If the firm offers profit sharing, as most do, and an LT saving vehicle, then the default must include an LT component.

An employee has three options with regard to variable remuneration: (i) invest it all in the default option (the passive choice), (ii) decline the default option and make an active investment choice combining the plan's funds, and (iii) opt out of the saving plan, thereby receiving variable remuneration as wage income and paying associated income tax.

The rich menu of options that are presented to employees makes France an attractive environment for studying behavioral factors in retirement saving choices and for building on the finding in Beshears et al. (2021) that the characteristics of a plan's default option affect the likelihood that plan participants make an active choice.

The next two sections present three tests of whether employees avoid LT options. There is likely to be significant heterogeneity across workers; we focus only on averages. The first test investigates whether the presence of an LT fund in the plan default affects take-up of the default. The second examines how the spread

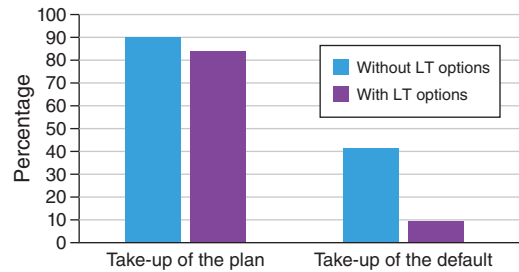


FIGURE 1. SHARE OF WORKERS TAKING UP THE SAVING PLAN AND TAKING UP THE DEFAULT INVESTMENT ALLOCATION, FIRMS WITH AND WITHOUT LT INVESTMENT OPTIONS

between the first-euro match rates for a plan's MT and LT options affects take-up of the LT options. The final test considers withdrawals from MT and LT saving vehicles when workers experience hardship conditions.

## II. Do Workers Avoid Less Liquid Investment Options?

Figure 1 shows that employees are 31.7 percentage points less likely to accept the default allocation when it includes an LT component. We reject the null hypothesis of equality at the 99 percent confidence level, clustering standard errors either by firm or by firm and geographic region. This suggests that workers opt out of the default to avoid LT options.

Most plan attributes are endogenous, and we cannot exclude the possibility that our finding reflects unobservable factors that make LT vehicles less attractive for reasons besides their limited liquidity or unobserved differences between the workers who are offered LT options and those who are not. However, conditional on a plan offering LT options, inclusion of an LT component in the default is not an employer choice. When an employer decides to offer LT options, the default must include an LT component. Briere, Poterba, and Szafarz (2021) show that the result in Figure 1 is robust to including worker- and firm-level controls in discrete choice models for default acceptance.

Table 1 shows how the take-up of LT options varies with the match rate spread between LT and MT vehicles, which is a rough proxy for the compensation offered for accepting the liquidity loss that comes with an LT saving vehicle. Here, we exclude matches that are offered on company

TABLE 1—TAKE-UP OF LT OPTIONS DEPENDING ON THE DIFFERENCE IN EMPLOYER FIRST-EURO MATCH RATES ON CONTRIBUTIONS TO LT AND MT ACCOUNTS

First-euro match rate differential (LT – MT) (%)	Number of workers	Average MT match rate (%)	Take-up of an LT-inclusive plan (%)
LT – MT ≤ 0	57,290	103	38
0 < LT – MT < 100	70,819	8	63
LT – MT ≥ 100	21,841	22	72

Source: Authors' tabulations using administrative data on employees at firms that contract with Amundi to administer their workplace saving plans. See text for further sample description.

stock, an asset class that is, by law, only available in MT vehicles. We stratify the firms that offer LT options and matching contributions, which collectively employ 149,950 workers, into three groups: those with an LT match premium that is less than or equal to 0, between 0 and 100 percent, and above 100 percent.

Table 1 shows that for plans with a lower match rate on LT saving than on MT saving, only 38 percent take up the LT option. This share is 63 percent when the LT match premium is positive and less than 100 percent and is 72 percent when the premium is larger than 100 percent. A bivariate regression shows that a 10 percentage point increase in the LT match rate, holding the MT match constant, is associated with a 1.4 percentage point increase in LT take-up. More than half of the workers who are offered LT options are employed at firms with higher matches on LT saving than MT saving.

### III. Early Withdrawals: Do Workers Demand Precautionary Liquidity?

Our third test is based on the patterns of early withdrawals from MT and LT accounts, not on contributions. Early withdrawals are only possible under hardship conditions. Disability or death of the participant or a close relative, overindebtedness, buying a primary residence, disaster recovery, and the end of unemployment rights allow access to assets in both MT and LT accounts.

We attempt to disentangle withdrawals that are associated with current needs from those that could be attributed to precautionary demand for liquidity. In the latter case, participants take advantage of the occurrence of hardship conditions to access otherwise illiquid assets.

We focus on the 481,163 plan participants with employer-sponsored saving accounts for the full year 2017. Among these participants, 38.1 percent were eligible to make regular withdrawals from their MT accounts, because at least some of their MT contributions had been made in or before 2012. Within this group, 25.9 percent made a regular withdrawal, 4.4 percent took an early withdrawal associated with hardship, and 71.0 percent did not make a withdrawal. Some participants made more than one type of withdrawal.

Among those who took a hardship withdrawal, more than two-thirds had access to *but did not take* a regular withdrawal. This is consistent with these workers recognizing that their hardship offered a transitory opportunity to withdraw otherwise-restricted funds, while their unrestricted funds could be withdrawn at any time. The decision to withdraw illiquid funds while preserving the balance in the liquid account is consistent with a precautionary demand for liquidity.

Figure 2 shows early withdrawals from MT and LT accounts, divided by the sum of the beginning-of-year balance and any within-year contributions prior to the withdrawal. We split the sample depending on whether the participant held only MT or both MT and LT accounts. We focus on the 6,404 participants who have either only an MT account or both MT and LT accounts and who experience a hardship that permits withdrawals from both MT and LT accounts.

Figure 2 presents withdrawals by those workers who have only an MT account as a reference group. The average withdrawal among these participants is 86 percent of their MT balance. For workers with both MT and LT accounts, the share of the LT account withdrawn (92 percent) is significantly larger than the 68 percent for the MT account. We reject the null hypothesis of equality at the 99 percent confidence level. This suggests that at least some workers with both MT and LT accounts prioritize the liquidation of the LT account. The liquidity benefit of withdrawing assets from a restricted account is greater if the term of the account restriction is longer.

### IV. The Burden of Choosing

Figure 1 shows that workers whose plans offer LT options are less likely than others to take up the plan default, which must include

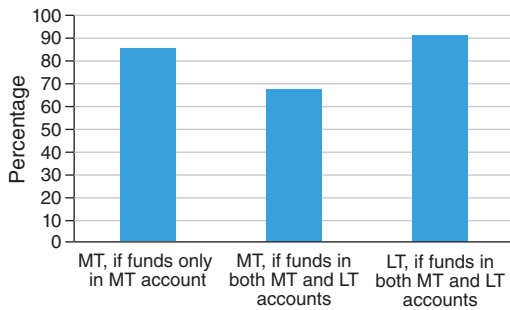


FIGURE 2. SHARE OF ACCOUNT BALANCE WITHDRAWN FROM MT AND LT ACCOUNTS WHEN HARDSHIP OCCURS, BY PARTICIPANT'S ACCOUNT COMPOSITION

an LT component. The figure also shows that workers are 6.4 percentage points less likely to participate in the plan *at all* when it offers LT options. The null hypothesis of equal take-up is rejected at the 99 percent confidence level when we cluster standard errors by firm and region and at the 89 percent level when we cluster by firm alone.

While this could be the result of unobserved worker heterogeneity or other attributes of plans with LT options, a cursory comparison of plans with and without LT options suggests that the former are more attractive on at least some other dimensions. Employees who are offered LT options are 9 percent more likely to be offered employer stock (69 percent versus 60 percent) and 45 percent more likely to be offered an employer match (90 percent versus 45 percent). Plans with LT options also offer more investment possibilities, on average, in their MT menus. These cross-plan differences make the finding of lower take-up of LT-inclusive plans more puzzling.

Since plans with LT options are typically more complex than those without them, choice overload could explain the lower participation rate. For some workers, the decision cost of reviewing the menu of investment options and making an active choice may outweigh the benefits of reduced taxes and improved retirement security associated with plan participation.

## V. Next Steps

Our research has only begun to exploit the rich across-plan and within-plan variation in the choice architecture of French saving plans.

Employers may match some but not all of the investment options on a plan menu, and they may offer match rates that vary with the amount of the participant's contribution. This presents a new opportunity for studying how matching affects participant behavior.

Endogeneity concerns notwithstanding, workplace saving plans offer a particularly attractive setting for studying the effects of illiquidity. In general, the liquidity properties of an asset depend on the opportunities for trading it, the depth of its market, and, in some cases, tax considerations. Ang, Papanikolaou, and Westerfield (2014) analyze portfolio choice with differential asset liquidity. Some of an asset's liquidity attributes may be difficult to measure. In French pension plans, however, restrictions on account access over various horizons create variation in liquidity that is transparent and quantifiable. We plan to further explore how liquidity restrictions and other investment attributes affect workplace saving decisions.

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