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these individuals. While the recent crisis focused public attention on retirement security in an age of defined contribution pension plans, it seems clear that the difficulties facing individuals who approach retirement at a time when the labor market is weak merit greater public attention.

Clemens Sialm

Menu Choices in Defined Contribution Pension Plans

Significant changes in the structure of retirement saving programs have occurred in recent decades in the United States and across the world. Defined Contribution (DC) pension plans, such as 401(k) and 403(b) plans, have become an important source of retirement funding, while the relative significance of Social Security and Defined Benefit (DB) pension plans has declined. As a result, more savings and investment decisions need to be taken by individuals, who might not have the time and knowledge to take optimal investment decisions. In addition, there are potential conflicts of interest between providers of the newer plans and retirement savers. Investment choices that maximize the profits of plan providers are not necessarily the optimal choices for retirement savers. It is therefore crucial to scrutinize the impact of DC plan design on savings and investment decisions.

I discuss here some key findings of two recent research projects that analyze the mutual fund investment options offered in DC pension plans. The structure of the retirement savings system affects the investment strategies, the money flows, and the performance of retirement savers. DC plan design needs to take into account behavioral biases and bounded rationality by retirement savers as well as conflicts of interests by service providers.

Mutual Fund Menu Options

Mutual fund holdings in employer-sponsored DC plans are an important and growing segment of today’s financial markets. Figure 1 depicts the total value of mutual fund assets in the United States. Between 1992 and 2014, total mutual fund assets grew from $1.6 trillion to $15.9 trillion. Mutual funds can be held in DC pension plans, in Individual Retirement Accounts (IRAs), and in non-retirement environments. The growth of mutual fund assets has been particularly strong in DC plans. Currently, around 23.5 percent of mutual fund assets are held in DC plans, 22.4 percent in IRAs, and the remaining 54.1 percent in non-retirement accounts. Thus, mutual funds have mixed clientele that differ according to their distribution channels, their time horizons, and their tax implications.

Whereas investors who own mutual funds in IRAs or in non-retirement accounts can choose from the universe of mutual funds, participants in employer-sponsored DC plans typically have limited choices. These choices arise through a two-stage process. In the first stage, the plan sponsor, typically the employer, together with the service providers, select the DC plan menu, which defines the set of investment options for participants. In the second stage, plan participants — the employees — allocate their individual account balances among the choices made available to them by the plan sponsor. Thus, final allocations in DC plans reflect decisions of the sponsor, the service providers, and the participants.
Sticky vs. Discerning Money

Despite the importance of DC mutual fund flows, little is known about the properties of money flows in DC pension plans. Conventional wisdom suggests that money flows to DC plans are driven more by returns in DC funds than in non-DC funds are driven by returns in non-DC assets, and participants are reluctant to rebalance and readjust their portfolios. In addition, DC plan participants make periodic retirement account contributions or withdrawals, which lead to persistence in money flows. To test whether DC money flows are sticky, we define Hanjiang Zhang, and I compare the flows of DC and non-DC mutual fund investors from 1997 to 2010. In contrast to the conventional wisdom, we find that money flows into mutual funds by DC plan participants are more volatile and exhibit a lower serial correlation than the flows into mutual funds by other investors. Furthermore, we show that DC flows are more sensitive to prior fund performance than non-DC flows. In fact, the flow-performance sensitivity of DC flows is particularly steep for DC assets. The flow-performance relation is close to linear for non-DC assets, the relation is clearly nonlinear for DC assets. The flow-performance relation is particularly steep for DC assets corresponding to funds in the top and bottom performance groups. For example, funds in the bottom decile of performance experience an average outflow of 8.3 percent of their assets, whereas funds in the highest decile of performance experience an average inflow of 25.5 percent of their assets.

Figure 2 depicts the sensitivity of money flows to prior performance for DC and non-DC assets. We group all U.S. domestic equity funds into percentiles according to the fund performance over the prior year. Funds in the lowest percentile correspond to the one percent of mutual funds that exhibit the worst performance over the previous year. In contrast, funds in the highest percentile correspond to the one percent of funds that exhibit the best performance.

The dots in the figure show the average money flows for the performance percentiles after controlling for other fund characteristics. The blue diamonds correspond to DC flows and the grey circles correspond to non-DC flows. The solid curves show the least-squares cubic relation for DC and non-DC flows.

On average, DC assets experience larger fund flows than non-DC assets due to the significantly lower turnover in qualified retirement accounts over our sample period. Whereas the flow-performance relation is close to linear for non-DC assets, the relation is clearly nonlinear for DC assets. The flow-performance relation is particularly steep for DC assets corresponding to funds in the top and bottom performance groups. For example, funds in the bottom decile of performance experience an average outflow of 8.3 percent of their assets, whereas funds in the highest decile of performance experience an average inflow of 25.5 percent of their assets.

Figure 2

Figure 2

Conclusions

As individuals take more responsibility for managing their retirement savings, it becomes important to consider the two-stage process of asset allocation in retirement plans. This process, in which the sponsor selects the menu and the participants decide how much to invest in the separate options, has the advantage of mitigating the inertia of plans. Sponsors together with the service providers can monitor the available investment choices and decide whether to make adjustments to the lineup. On the other hand, the two-stage process also can create agency conflicts as, for instance, if the sponsor has an incentive to attract and retain investment returns in their own proprietary funds. A systematic analysis of the advantages and disadvantages of different structures of retirement savings is crucial in an environment where retirement savers are subject to behavioral biases and bounded rationality and where financial intermediaries are subject to agency conflicts.


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