# Which Default Investment Is the Stickiest?

**Morningstar Research**
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## Introduction

The Pension Protection Act of 2006 (PPA) provided safe harbor for three types of defined contribution (DC) plan qualified default investment alterative vehicles: target-date funds (TDFs), target-risk (or balanced) funds, and managed accounts. Since the passage of the PPA, TDFs have emerged as the predominant default choice among plan sponsors. However, there is little research exploring how "sticky" the various default investment options are, i.e., the likelihood of the participants staying in the default. In this piece, we explore the various demographics associated with default acceptance, as well as which default option appears to be the "stickiest" among DC participants.

### Key Takeaways:

▶ All default investment options (TDFs, target-risk funds, and managed accounts) have very high levels of acceptance, with acceptance rates of approximately 85% initially but declining to approximately 70% after five years of plan participation. Approximately 50% of participant assets in aggregate tend to be invested in the default, and this percentage is relatively constant over time.

▶ Participants who accept the default tend to be younger and have lower plan tenures, lower incomes, lower plan balances, and lower savings rates. The differences in demographics associated with default acceptance suggest DC plan sponsors and consultants should not assume each participant has an equal probability of selecting the default when building or selecting the plan default option.

▶ Across the three default types, managed accounts were the "stickiest" option (i.e., had the highest level of continued acceptance), followed by TDFs and balanced funds. While we do not know exactly why this occurred, the order of stickiness (managed accounts / TDFs / balanced funds) was consistent with the personalization associated with each default, with managed accounts offering the highest level of personalization (and the highest ongoing acceptance), and balanced funds the least.
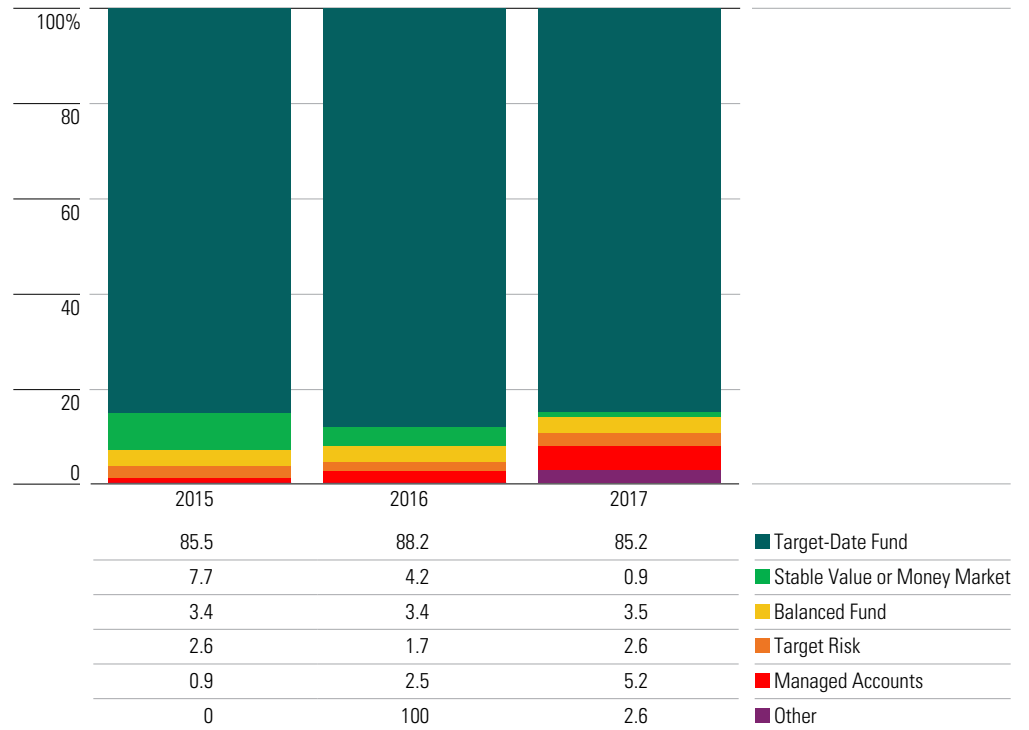
## The Rise of Defaults

There has been a significant increase in the use of "intelligent" defaults in defined contribution plans over the past decade, in particular, following the introduction of the Pension Protection Act of 2006 (PPA). For example, previously the decision to participate in a DC plan was voluntary, where the participant had to "opt-in" the plan and determine the appropriate savings rate, portfolio allocation, and so on. Increasingly, there has been a shift to smarter defaults, where the participant is automatically enrolled in the plan at deferral rate and an investment solution determined by the plan sponsor. This small change in decision architecture has resulted in a meaningful increase in plan participation (Madrian and Shea 2001, and Choi et al. 2002).

While there is a relatively robust (and growing) body of research exploring features such as automatic enrollment, there is relatively limited literature on default investment acceptance (i.e., who is more likely to accept the default). Auto-investing presents a different set of considerations versus automatic enrollment and default savings. While demographics may have some effect on the decision to offer automatic enrollment (e.g., if turnover is incredibly high), the plan sponsor generally has other methods to reach the desired outcome (e.g., delay participation in the DC plan).

Three types of qualified default investment alternatives, or QDIAs, were introduced in the PPA: TDFs, target-risk (or balanced) funds, and managed accounts. TDFs have become the clear favorite among plan sponsors and as such have seen a tremendous growth in assets. For example, according to research by Callan (2018), 91% of plans offer a TDF and 85% of plans use it as the default (versus 5% for managed accounts and 6% for a target-risk type fund). See Exhibit 1 for details on how the prevalence of defaults has changed over time.

**Exhibit 1**  Default Usage

| | 2015 | 2016 | 2017 | |
|---|---|---|---|---|
| | 85.5 | 88.2 | 85.2 | ■ Target-Date Fund |
| | 7.7 | 4.2 | 0.9 | ■ Stable Value or Money Market |
| | 3.4 | 3.4 | 3.5 | ■ Balanced Fund |
| | 2.6 | 1.7 | 2.6 | ■ Target Risk |
| | 0.9 | 2.5 | 5.2 | ■ Managed Accounts |
| | 0 | 100 | 2.6 | ■ Other |

Source: Callan 2018

Additionally, assets in TD mutual funds have increased roughly seven-fold from December 2007 to December 2017[1] from $180 billion to $1.3 trillion, respectively, based on data from Morningstar Direct. Exhibit 2 provides some perspective regarding the growth in TDF usage in DC plans recordkept at Vanguard from 2008 to 2017, in terms of availability, access, and usage (Young and Young 2018).

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1   And mutual fund assets are an increasingly incomplete metric of total TDF assets given the growth in custom TD solutions and CITs; therefore, this likely significantly understates the growth in total assets.

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**Exhibit 2**  Growth of Availability and Usage of TDFs in DC Plans
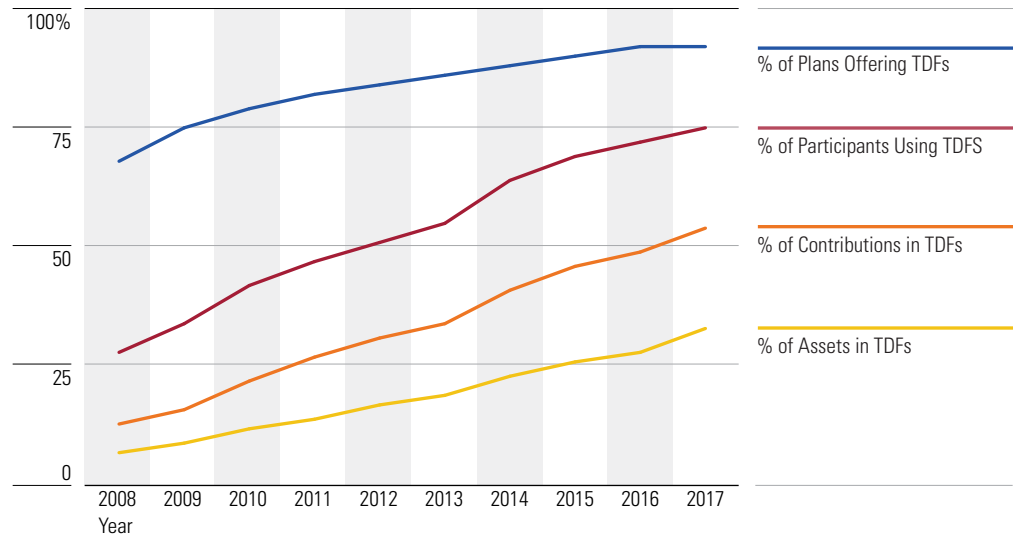


Source: Young and Young (2018)

One common concern regarding TDFs is that TDF investors can potentially "mix" the TDF with other investments available in the plan (e.g., on the core menu). This is generally considered to be suboptimal because target-date funds are intended to be all-in-one investment solutions and blending the target-date fund with other investments can reduce the expected efficiency of the participant's portfolio. Pagliaro and Utkus (2017) note that roughly 70% of participants in DC plans recordkept at Vanguard that offered a TDF were invested in a TDF, and among those roughly one third were "mixed" investors (holding the TDF and some other investment). However, roughly half of mixed investors were mixed because of decisions by the plan sponsor (e.g., employer contributions in company stock, nonelective contributions to the plan's default fund, etc) while the other half were "intentional" mixed investors.

Overall, the shift away from participant-directed portfolios, where each participant is effectively a portfolio manager, to an environment where there is wide adoption of a professionally managed investment solution is likely to improve participant outcomes. Therefore, it would appear prudent to study the stickiness of various default investment solutions; naturally, more sticky investment defaults would appear to improve participant outcomes as they reduce the number of participants selecting investments themselves.

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## Data Set

In order to better understand default acceptance, an analysis was conducted from a data set provided by a recordkeeper of U.S. DC plans as of December 31, 2017. The initial data set consists of 538,439 participants across 448 401(k) plans. For each participant, data is available on whether the participant was defaulted into the current portfolio and the date the decision was made. The default option varies by plan and could potentially be a balanced fund, TDF, or managed account.

Several additional demographic variables are available for each participant, including age, date of participation in the DC plan, deferral rate, salary, DC plan balance, and plan default type (which is a target-date fund, managed account, or balanced fund). Gender is not available from all participants so is therefore excluded. The analysis excludes any plans where less than 25% of the participants were not invested in the default investment. As the analysis will demonstrate, it is unlikely that plans with fewer than 25% of participants in the DC plan had consistently made the default available to all participants. Data was also scrubbed for reasonableness (e.g., negative salaries, missing birthdays, etc.). Combined, these filters reduce the actual test data set to 264,411 participants across 318 401(k) plans.

Descriptive statistics for plans (Panel A), participants (Panel B), participant medians by age (Panel C), and default type (Panel D) are included in Exhibit 3.

**Exhibit 3** Descriptive Statistics for Data Set

**Panel A: Plan Distribution Data**

|  | PPts | Plan Assets (USD) | Average Balance (USD) |
|---|---|---|---|
| 5th | 16 | $3,021,527 | $37,696 |
| 25th | 82 | $12,914,415 | $75,715 |
| Median | 265 | $30,851,403 | $119,865 |
| 75th | 740 | $78,887,047 | $202,023 |
| 95th | 2,812 | $289,253,729 | $568,070 |
| **Average** | **832** | **$87,929,915** | **$175,735** |

**Panel B: Participant Distribution Data**

|  | Age | Tenure | Salary (USD) | Deferral | Balance (USD) |
|---|---|---|---|---|---|
| 5th | 25 | 1.22 | $15,080 | 0 | $1,134 |
| 25th | 33 | 2.62 | $37,168 | 4 | $9,424 |
| Median | 43 | 5.10 | $59,966 | 6 | $32,854 |
| 75th | 54 | 10.42 | $95,000 | 10 | $102,694 |
| 95th | 64 | 21.16 | $205,000 | 20 | $455,282 |
| **Average** | **44** | **7.49** | **$81,085** | **8.09** | **$105,671** |

**Panel C:  Default Investment Usage by Plan Type**

| Default | Plans | PPts | Average PPts |
|---|---|---|---|
| TDF | 171 | 207,497 | 1,213 |
| MA | 129 | 46,716 | 362 |
| Balanced | 18 | 10,398 | 578 |
| **Total** | **318** | **264,611** |  |

**Panel D: Participant Median Data by Age**

| Age | Tenure | Salary (USD) | Deferral | Balance (USD) |
|---|---|---|---|---|
| 20 | 1.49 | $21,112 | 4 | $1,355 |
| 25 | 2.34 | $36,716 | 5 | $6,844 |
| 30 | 3.54 | $50,000 | 6 | $17,258 |
| 35 | 4.65 | $61,266 | 6 | $31,546 |
| 40 | 5.63 | $68,089 | 6 | $40,844 |
| 45 | 6.32 | $70,627 | 6 | $48,255 |
| 50 | 7.09 | $69,505 | 6 | $55,635 |
| 55 | 8.29 | $68,399 | 7 | $70,394 |
| 60 | 9.42 | $65,190 | 7 | $71,130 |
| 65 | 9.75 | $65,129 | 7 | $58,446 |

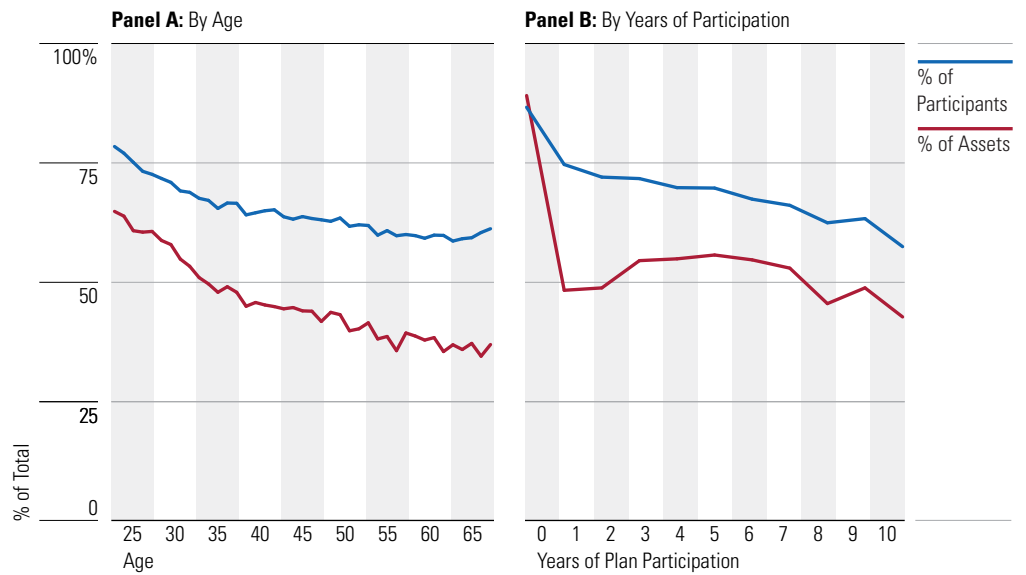Source: Authors' calculations

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Plan balances and savings rates are relatively similar to those noted by other recordkeepers. For example, as of December 31, 2017, Fidelity noted an average DC participant balance of $104,300 and an average savings rate of 7.9%. These values are very similar to those in Exhibit 3 ($105,671 and 8.1%, respectively). One potential reason this data set might have slightly higher values is that only participants coded as actively participating in the DC plan are included in this analysis to ensure the other demographic variables considered, in particular salary, are current.

Panel C provides relatively clear evidence that certain trends exist across ages. For example, older participants tend to have longer tenures, higher salaries, higher deferral rates, and higher balances. This becomes important later when thinking about default acceptance across different demographic variables, such as age (because age, or date of birth, is the most common determinant of the participant portfolio).

Panel D demonstrates that the most popular default-type by participants is the target-date fund. While there are a relatively large number of plans using managed accounts, they tend to be significantly smaller. Relatively few plans were using a balance/target-risk fund as the option.

### Who Accepts the Default Investment?

Age is the predominant variable used to determine the default investment for a participant, especially when a TDF is the default investment. TDFs today are most commonly available in five-year vintages, and a participant is defaulted to the TDF that corresponds closest to the expected retirement age (e.g., age 65). In Exhibit 4, we provide some perspective about how default acceptance varies by age (Panel A), both in terms of percentage acceptance and percentage of total assets, as well by years of participation (Panel B).

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**Exhibit 4**  Default Acceptance

**Panel A:** By Age                    **Panel B:** By Years of Participation



— % of Participants
— % of Assets

Source: Authors' calculations

In Panel A of Exhibit 4, we see that default acceptance declines from about 80% of participants at age 25 (and about 60% of assets) to around 60% of participants by age 65 (and about 40% of assets). In Panel B, we see default acceptance is about 85% initially but declines to 70% after five years and 60% after 10 years. The percentage of participant assets is relatively constant over various years of plan participation, other than the first half year or so. These estimates are relatively similar to the default acceptance estimates noted by Clark and Young (2018), based on DC plans recordkept at Vanguard, where they note 84% of participants are 100% invested in the default option after one year, 82% by two years, 77% by three years.

The results in Exhibit 4 provide clear evidence that default usage is lower for older participants and participants with longer plan tenure. What is not clear, though, is the extent to which age and years of plan participation are related to the decision to accept the default. It could be that a different attribute (or attributes) associated with age is driving this effect, such as income. To demonstrate this potential effect, we separate participants in five different salary groups (less than $25,000; $25,000-$49,999; $50,000-$74,999; $75,000-$124,999; and greater than or equal to $125,000, which roughly correspond to the quintile income breakpoints across the data set) and five different age groups (less than 30, 30-39, 40-49, 50-59, and greater than or equal to 60), for a total of 25 groups. For each group, we determine the percentage of participants who are currently invested in the default and include the results in Exhibit 5.

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**Exhibit 5**  Default Acceptance by Age and Income Groups
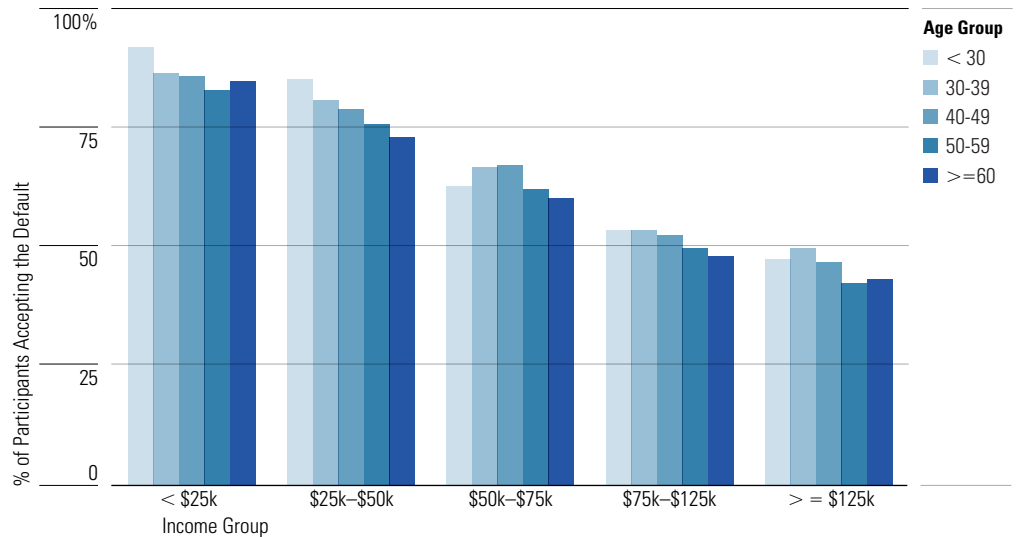


Source: Authors' calculations

The results in Exhibit 5 clearly demonstrate that income is a much more important driver of default acceptance than age. For example, the average range in default acceptance within an income group is approximately 8 points, while the average range across income groups is approximately 40 points. This suggests that income has a much stronger relation than age when it comes to default acceptance. While it is true that older participants tend to have lower default usage (Panel A of Exhibit 4 is relatively conclusive to this point), it appears the predominant driver of this effect is the higher levels of compensation associated with older participants, not simply their age (note Exhibit 5).

These initial findings suggest that a more robust analysis is necessary to truly understand the potential drivers of the default acceptance. Therefore, a series of logistic regressions is performed. Logistic regression is a statistical model used when the variable being explored (i.e., dependent variable, which is default acceptance) is binary (i.e., the participant accepted the default or did not). The dependent variable for the logistic regressions is a binary variable, which is set to 1 if the participant is invested in the default. Otherwise, it is zero. The independent variables are age, years of plan participation (that is, plan tenure), total deferral rate, salary (the natural logarithm of salary is technically used to control for the positive skewness associated with salaries), DC plan balance (the natural logarithm of balance is technically used to control for the positive skewness associated with balances), and default-type. For default-type, managed accounts and balanced funds are both dummy variables and target-date usage is the omitted variable.

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Two logistic regressions are performed. The first does not include any weights, and the second is weighted so that each plan has the same weight. A weighted regression is included to reduce the potential impact that larger plans may have on the analysis, especially because certain plans may have unique aspects or characteristics driving the default that we are unable to capture in the model. In order to be included in the weighted regression, the plan must have at least 30 participants, which eliminates 33 plans from the weighted logistic regressions (so, from 318 plans to 285 plans). The results of the logistic regressions are included in Appendix 1.

The coefficients are similar for the two logistic regressions. The most notable difference is that the coefficient for age is not statistically significant for the weighted logistic regression. This suggests that default acceptance does not change based on age.

The negative coefficient for balance suggests that the probability of accepting the default decreases as the balance increases. It is worth noting that balance is also a proxy for a number of the variables included in the analysis (e.g., it has the highest correlation with the other variables included in the regression, although not to the point multicollinearity would be an issue for the regressions).[2] For example, participants with higher salaries are likely to have higher balances, as are those who have higher deferral rates, as are those who have been participating in the plan longer.

The negative coefficients for deferral rate, salary, and balance each suggest that participants who are more likely to accept the default would generally be described as less sophisticated and therefore those whom we most want to see using the default.

These differences in demographics can have important implications when building or selecting a default for a plan sponsor. For example, participants with lower incomes are more likely to accept the default. Participants with lower incomes typically have Social Security benefits replace a higher percentage of their income during retirement, which suggests they have an increased risk capacity with their DC investments. Taken together, the demographic findings suggest participants who are likely to accept/use the default are not the "average" DC participant.

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2    The highest correlation is 0.57, between balance and salary, and the second highest is 0.53, between tenure and balance.

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### Default Acceptance by Type

There were notable differences in default acceptance by default type (Appendix 1). The variable with the greatest effect, which can be noted by the variable with the odds ratio with the greatest difference from one, is whether the participant was in managed accounts (or potentially a balanced fund). The positive coefficient suggests there was a significantly higher probability of being in the default investment if the default for the plan was managed accounts (versus TDFs). The reverse was also true for balance funds, where the probability was lower given the negative coefficient and odds.

To better understand how default acceptance varies by default-type, Exhibit 6 groups participants by plan tenure and default type. Consistent with the results of logistic regressions, managed accounts displayed the highest acceptance rate, followed by target-date funds and then balanced funds.

**Exhibit 6**  Default Acceptance by Default Type and Plan Tenure
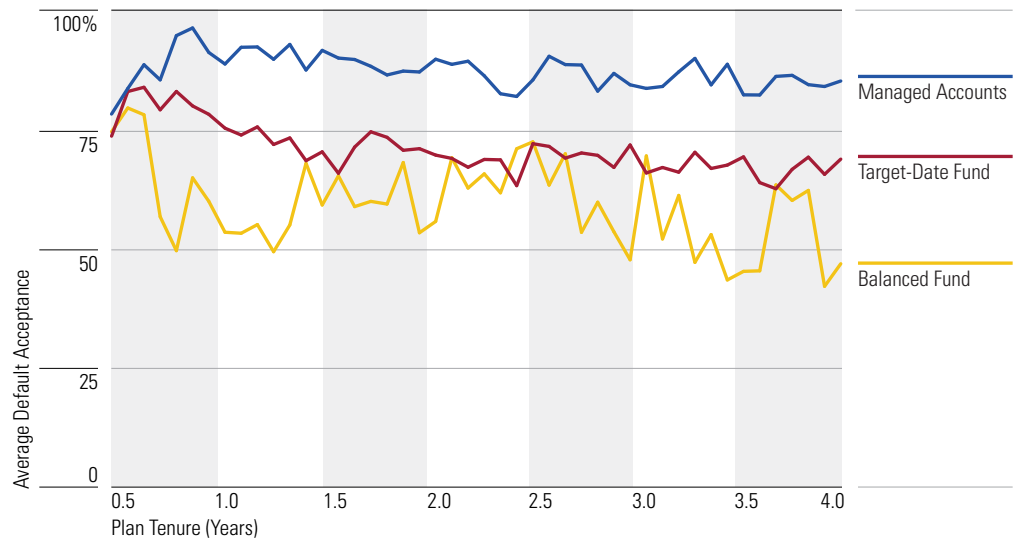


Source: Authors' calculations

Next, we use coefficients from the weighted logistic regression (Appendix 1) and apply those to median demographics by age (Appendix 2) to estimate the probability of the "average" participant being invested in the default by age. We do this to control for potential participant demographics that could be driving the differences noted in Exhibit 6. For example, it could be that plans that offer balanced funds tend to have participants with lower levels of compensation, which could be driving the lower levels of default acceptance. These results are included in Exhibit 7.

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**Exhibit 7** Estimated Default Acceptance for the Average Participant by Age
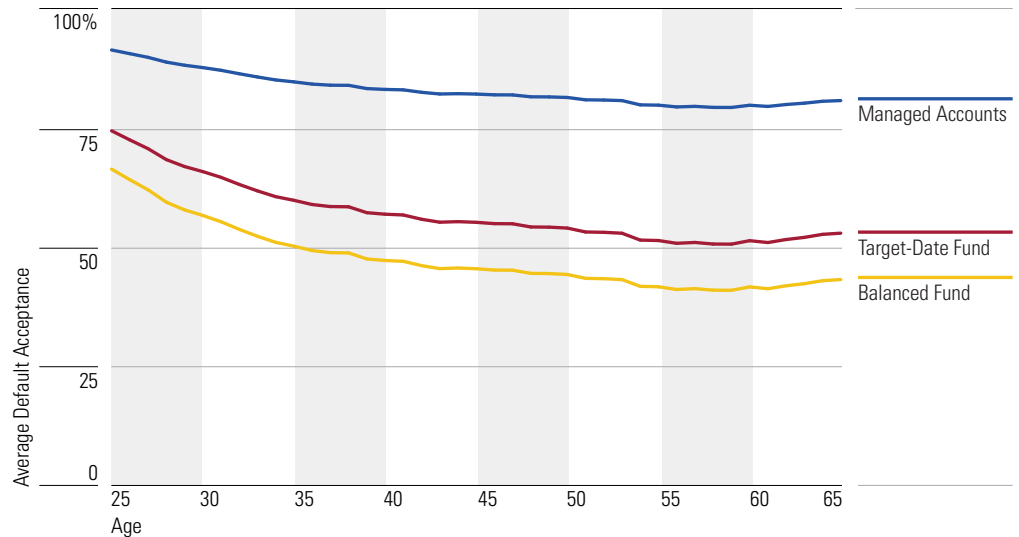


Source: Authors' calculations

Again, we see that managed accounts are expected to be the "stickiest" default invest option. While we don't have empirical evidence as to why this is the case, the level of stickiness is consistent with the level of personalization associated with the respective solutions, whereby managed accounts offer the highest level of personalization (and are the stickiest) and a balanced fund is the least personalized (the same portfolio for everyone, even regardless of age).

The stickiness associated with managed accounts is in addition to other potential benefits noted with using it as the default. For example, Blanchett, Bruns, and Voris (2016) note that participants defaulted in managed accounts have higher savings rates.

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## Conclusions

Historically when evaluating plan default investments, focus has been on fees, performance, and, to an extent, the "appropriateness" of the default investment solution's "fit" with plan participants. While we believe the above criteria are important, we also believe it is important to consider the likelihood of participants' continued usage of the default investment solution.

We found that default acceptance was meaningfully influenced by the type of default offered and participant demographics. Further, participants who are more likely to accept/use the default are not the "average" participant, which has important implications when designing or selecting a default investment for a plan.

We also found that managed accounts are the stickiest default option, followed by target-date funds and then balanced funds. Although the exact reason for the stickiness associated with managed accounts is unknown, it is speculated to be a result of the increased personalization associated with managed accounts. As managed accounts continue to become more popular, both as "opt-in" and "opt-out" arrangements, it will be important to continue researching this topic. M

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## References

Beshears, J., Benartzi, S., Mason, R.T., & Milkman, K.L. 2017. "How Do Consumers Respond When Default Options Push the Envelope?" White Paper.

Blanchett, D., Bruns, D., & Voris, N. 2016. "The Impact of the Default Investment Decision on Participant Deferral Rates: Managed Accounts vs Target-Date Funds." White Paper.

Callan. 2018. "2018 Defined Contribution Trends." White Paper.

Clark, J.W. & Young, J.A. 2018. "Automatic Enrollment: The Power of the Default." White Paper.

Choi, J.J., Laibson, D., Madrian, B.C., & Metrick, A. 2002. "Defined Contribution Pensions: Plan Rules, Participant Choices, and the Path of Least Resistance." Tax Policy and the Economy, Vol. 16, P. 67-113.

Madrian, B.C., & Shea, D.F. 2001. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior." The Quarterly Journal of Economics, Vol. 116, No. 4, P. 1149-1187.

Pagliaro, C. & Utkus, S. 2017. "A Different Kind of Target-Date Investor." White Paper.
Young, J. & Young, G. 2018. "TDF Adoption in 2017." White Paper.

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## Appendices

**Appendix 1** Logistic Regression Coefficients

| Variable | Logistic Regression | | | Weighted Logistic Regression | | |
|---|---|---|---|---|---|---|
| | Coefficient | Pr > Chi² | Odds Ratio | Coefficient | Pr > Chi² | Odds Ratio |
| Intercept | 8.8600 | < 0.0001 | — | 6.8053 | < 0.0001 | — |
| Age | 0.0042 | < 0.0001 | 1.0042 | 0.0005 | 0.2650 | 1.0005 |
| Plan Tenure | -0.0186 | < 0.0001 | 0.9816 | -0.0112 | < 0.0001 | 0.9888 |
| Deferral Rate | -0.0303 | < 0.0001 | 0.9701 | -0.0210 | < 0.0001 | 0.9793 |
| ln(Salary) | -0.4282 | < 0.0001 | 0.6517 | -0.2564 | < 0.0001 | 0.7738 |
| ln(Balance) | -0.3265 | < 0.0001 | 0.7214 | -0.3284 | < 0.0001 | 0.7200 |
| Managed Accounts? | 1.4186 | < 0.0001 | 4.1315 | 1.3303 | < 0.0001 | 3.7823 |
| Balanced Fund? | -0.2404 | < 0.0001 | 0.7863 | -0.3916 | < 0.0001 | 0.6760 |

**Appendix 2** Median Participant Demographics by Age

| Age | Tenure | Deferral Rate | Salary USD ($0,000s) | Balance USD ($0,000s) | Age | Tenure | Deferral Rate | Salary USD ($0,000s) | Balance USD ($0,000s) |
|---|---|---|---|---|---|---|---|---|---|
| 25 | 2.34 | 5 | $36.72 | $6.84 | 45 | 6.32 | 6 | $70.63 | $48.26 |
| 26 | 2.60 | 5 | $39.32 | $8.71 | 46 | 6.13 | 6 | $70.20 | $50.57 |
| 27 | 2.75 | 5 | $42.75 | $10.74 | 47 | 6.34 | 6 | $69.85 | $50.67 |
| 28 | 3.04 | 6 | $46.06 | $13.14 | 48 | 6.65 | 6 | $69.01 | $55.04 |
| 29 | 3.33 | 6 | $47.84 | $15.52 | 49 | 7.08 | 6 | $69.58 | $54.21 |
| 30 | 3.54 | 6 | $50.00 | $17.26 | 50 | 7.09 | 6 | $69.51 | $55.64 |
| 31 | 3.67 | 6 | $52.21 | $19.57 | 51 | 7.50 | 6 | $69.63 | $60.67 |
| 32 | 4.00 | 6 | $55.51 | $22.52 | 52 | 7.28 | 6 | $68.99 | $62.20 |
| 33 | 4.13 | 6 | $58.24 | $25.83 | 53 | 7.41 | 6 | $69.63 | $63.03 |
| 34 | 4.50 | 6 | $60.00 | $29.17 | 54 | 8.25 | 7 | $68.63 | $69.44 |
| 35 | 4.65 | 6 | $61.27 | $31.55 | 55 | 8.29 | 7 | $68.40 | $70.39 |
| 36 | 4.87 | 6 | $63.59 | $34.06 | 56 | 8.41 | 7 | $68.70 | $75.15 |
| 37 | 4.84 | 6 | $65.00 | $35.44 | 57 | 8.68 | 7 | $67.15 | $74.25 |
| 38 | 5.13 | 6 | $65.01 | $35.35 | 58 | 9.14 | 7 | $66.26 | $77.04 |
| 39 | 5.40 | 6 | $66.52 | $40.23 | 59 | 9.00 | 7 | $67.22 | $76.85 |
| 40 | 5.63 | 6 | $68.09 | $40.85 | 60 | 9.42 | 7 | $65.19 | $71.13 |
| 41 | 5.46 | 6 | $68.44 | $41.82 | 61 | 9.30 | 8 | $65.88 | $69.80 |
| 42 | 5.84 | 6 | $69.83 | $45.50 | 62 | 9.25 | 8 | $66.21 | $64.54 |
| 43 | 6.00 | 6 | $71.01 | $48.29 | 63 | 9.75 | 7 | $65.75 | $64.47 |
| 44 | 6.08 | 6 | $69.70 | $48.22 | 64 | 9.58 | 7 | $65.76 | $60.05 |
| | | | | | 65 | 9.75 | 7 | $65.13 | $58.45 |

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