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Managed Accounts Under Adverse Market Scenarios: Where and When Personalization Adds Value

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Executive Summary

This study uses the Morningstar Center for Retirement & Policy Studies' microsimulation framework, the Defined Contribution Outcomes Model, to compare managed accounts with do-it-yourself portfolios and target-date funds under adverse market conditions, using matched capital market scenarios.

For each participant in the sample, we identified the market path that produces a first-percentile outcome under their existing strategy (meaning a path wherein only 1% of simulated outcomes are worse) and then ran the managed account through that same path. The comparison showed that managed accounts produced higher projected age-65 accumulations for 85.1% of participants, with an average relative advantage of 12.2%. However, the size of the advantage varies substantially across plan participants.

Additional takeaways include:

- Managed accounts had an average advantage of 18.0% against self-directed, or DIY, portfolios, compared with 9.8% against target-date funds. One possible explanation is that DIY portfolios may be less diversified or have asset allocations that are less appropriate for participants' ages.
- The largest managed-account advantages generally occur in automatic-enrollment plans without automatic escalation, where personalization has more opportunity to alter saving and investment outcomes.
- The results do not support a simple derisking explanation. Lower equity exposure appears valuable in the most extreme adverse scenarios, but managed accounts also outperform when their equity allocations at age 60 are similar to or higher than the comparison strategy's. Differences in contribution rates are an important part of the projected managed-account advantage.

For plan sponsors, these findings highlight the importance of evaluating managed accounts in the context of existing investment alternatives, plan design, and participant characteristics.

Why Look Beyond Average Outcomes?

Retirement investment strategies are often evaluated using average or median projected outcomes. Those measures are useful, but they cannot answer an equally important question: Does the relative value of an investment strategy change when participants encounter unusually poor market environments?

This question is particularly relevant for managed accounts. Unlike a target-date fund, which generally bases its asset allocation primarily on age or expected retirement date, a managed account can incorporate participant-specific information when determining investment allocations and, depending on the service, saving recommendations.

Morningstar's earlier research using the Defined Contribution Outcomes Model, or DCOM, found that the value of managed accounts varies meaningfully across participants and plan designs. The current analysis extends that work by focusing specifically on adverse capital market paths. Rather than asking only whether managed accounts produce a higher median outcome across all simulations, we ask two related questions.

First, how do managed accounts perform on market paths that generate particularly poor outcomes under a participant's existing investment strategy?

Second, does the relative advantage of the managed account itself increase as the market environment becomes more adverse?

Those questions are related, but they are not the same. A managed account can outperform another strategy in a poor market without necessarily providing greater incremental value in that poor market than it provides under more typical conditions.

A Brief Overview of Prior Research

A substantial body of research has examined managed accounts and other forms of personalized retirement advice. Broadly, this literature suggests that managed accounts can affect participant outcomes through multiple channels, including contribution behavior, asset allocation, portfolio risk, and diversification. Prior studies have also emphasized that outcomes vary across participants and depend on the alternative investment strategy against which managed accounts are compared. We reviewed this broader literature in greater detail in earlier papers in this research series.

Morningstar's 2026 Managed Accounts Research Series has explored these questions using a common DCOM framework.

The first study, Analyzing the Value of Managed Accounts, estimated projected retirement outcomes after accounting for a 40-basis-point annual managed-account fee. The analysis found an overall 7.7% increase in median age-65 wealth-to-salary from adopting a managed account, with an 11.4% increase relative to DIY investors and a smaller 5.9% increase relative to target-date fund investors. Both savings

and asset-allocation differences contributed to the projected result, with contribution behavior playing an important role.

The second study, How Plan Design Shapes the Value of Managed Accounts, examined why that value varies across plan environments. It found that managed-account value tends to be larger where existing plan features leave more opportunity for improvement. In particular, automatic escalation reduces some of the behavioral headroom available for managed-account recommendations to affect long-term accumulation. The analysis also found that the incremental effects tend to be smaller relative to target-date funds than relative to DIY portfolios.

The third study, Decoding Deferral Behavior in Managed Accounts, examined contribution behavior directly. Managed-account use was generally associated with higher contribution rates and a greater probability of contributing enough to receive the full employer match, although the relationship varied across participant and plan characteristics. Importantly, that analysis did not claim a causal effect and noted that managed-account value in plans with strong defaults may operate through channels other than contribution increases, including portfolio construction and other forms of household-specific advice.

The current study extends this research by asking a different question: Does the relative value of managed accounts change when participants experience unusually adverse capital-market paths? By comparing managed accounts and existing strategies on identical market paths, we can distinguish between two questions that are easily conflated: whether a managed account performs better in a bad market and whether its relative value actually increases as market outcomes become more adverse.

How the Analysis Works

The analysis uses DCOM to estimate retirement accumulations under a participant's existing strategy and under a managed-account alternative. This is not simply a comparison of different asset allocations. The managed-account scenario also reflects differences in saving behavior, with contribution paths based on the contribution-rate relationships incorporated into DCOM.

The primary outcome is projected account wealth at age 65 divided by salary at age 65. Comparison strategies are either a DIY portfolio or a target-date fund. The analysis also distinguishes among three plan designs: automatic enrollment with automatic escalation, automatic enrollment without automatic escalation, and voluntary enrollment.

For each participant, simulated outcomes under the existing strategy are ranked. We identify the capital-market paths producing the participant's first-, fifth-, 10th-, 25th-, and 50th-percentile status quo outcomes. We then evaluate the managed-account strategy using the same capital market path. This matched-path approach is important. The first-percentile, or P1, scenario is defined by the participant's existing strategy. It is not the independently calculated first percentile of the managed-account distribution.

We examine three measures. The first is the raw difference in age-65 wealth relative to salary. The second measures the managed-account advantage on the P1 path itself. The third compares the managed-account relative advantage at P1 with its advantage at P50, providing a measure of incremental downside value. Additional comparisons using P5, P10, and P25 test whether the results depend on a particular definition of an adverse scenario.

Managed Accounts Improve Average Accumulations, but Not for Everyone

Before focusing on adverse scenarios, it is useful to establish what happens on average. Across our sample, mean projected age-65 wealth equals 5.88 times final salary under the managed account and 5.36 times final salary under the comparison strategy. The mean paired difference is therefore about 0.52 times final salary.

The median difference is smaller, approximately 0.28 times final salary, and the distribution includes a meaningful negative tail. About 82.6% of pooled observations show a higher managed-account outcome, while 17.4% do not.

That distribution is important. Managed accounts produce a positive average result, but an average should not be converted into a claim that every participant benefits.

Managed Accounts Perform Strongly in the Most Adverse Scenario

The managed account advantage becomes particularly visible on the market path producing each participant's P1 status-quo outcome. Across the participant-level sample, the mean P1 managed-account advantage is approximately 12.2%, and 85.1% of participants have a higher managed-account outcome on that path.

Relative to DIY portfolios, the mean P1 advantage is approximately 18.0%, and nearly 99% of participants have a higher managed-account outcome. Relative to target-date funds, the mean advantage is lower, approximately 9.8%, with about 79% of participants showing a higher managed-account outcome.

Exhibit 1 Managed-Account Results Under the Most Adverse Scenario

Measure	DIY	Target-Date Fund	Overall
Mean P1 MA Advantage	18.0%	9.8%	12.2%
Higher MA Outcome at P1	98.7%	79.3%	85.1%

Source: Morningstar analysis using DCOM. P1 denotes the capital market path producing the participant's first-percentile outcome under the existing strategy.

The difference between DIY and target-date fund results is consistent with the earlier research. Target-date funds already provide professional portfolio construction, diversification, rebalancing, and age-based changes in asset allocation. The incremental opportunity available to personalization is therefore smaller than when the alternative is a participant-directed portfolio.

An important factor underlying these results is the difference in contribution rates between managed-account users and nonusers. As documented in our previous publication, Decoding Deferral Behavior in Managed Accounts, managed-account users generally have higher contribution rates, although the magnitude varies by plan design and participant characteristics. Those contribution differences are incorporated into DCOM and contribute to the managed-account wealth differences examined here.

Performance in a Bad Market Is Not the Same as Downside Mitigation

A positive P1 outcome tells us that the managed account performs better than the comparison strategy on an extremely adverse path. It does not tell us whether the managed account becomes relatively more valuable as conditions worsen.

To examine that question, we compare each participant's managed-account advantage at P1 with the same participant's advantage at P50. The results are displayed in the table below.

Exhibit 2 Incremental Downside Value by Comparison Strategy

Measure	DIY	Target-Date Fund	Overall
Mean P1 vs. P50 Incremental Effect	5.6%	3.6%	4.2%
At least 1% Downside Improvement	65.8%	55.1%	58.3%
At least 1% Downside Worsening	25.2%	36.9%	33.4%

Source: Morningstar analysis using DCOM. P1 denotes the capital market path producing the participant's 1st-percentile outcome under the existing strategy. The P1-versus-P50 measures capture changes in the relative MA advantage, not percentage-point reductions in investment losses.

On average, the managed-account relative advantage increases by approximately 4.2% between the median path and the P1 path. Using a threshold of at least 1% proportional improvement, we note that 58.3% of participants experience meaningful incremental downside value, while 33.4% experience at least a 1% worsening in the relative managed-account advantage, with the remaining participants clustered close to zero.

The results therefore indicate incremental downside value on average, although the measure captures changes in managed-account performance relative to the comparison strategy rather than losses avoided or drawdowns prevented.

The Downside Effect Is Stronger Relative to DIY

Relative to a DIY approach, the average P1-minus-P50 effect is approximately 5.6%. About 65.8% of DIY participants experience at least a 1% improvement, compared with 25.2% experiencing at least a 1% worsening.

Relative to target-date funds, the mean incremental effect is approximately 3.6%. About 55.1% experience at least a 1% improvement, while 36.9% experience at least a 1% worsening.

Thus, professional default investment management narrows the incremental opportunity for managed accounts but does not eliminate it.

Plan Design Changes How Much Room Personalization Has to Work

In this section, we analyze how the value of managed accounts under adverse market scenarios varies with plan design.

We find that automatic-enrollment plans without automatic escalation consistently show the largest managed-account advantages, whereas plans combining automatic enrollment with automatic escalation generally show the smallest advantage.

The difference becomes particularly large over longer horizons, as demonstrated in the table below.

Exhibit 3 Adjusted P1 Managed-Account Advantage by Horizon and Plan Design

Years to Age 65	AE With Escalation	AE Without Escalation	Voluntary Enrollment
0-5 years	1.3%	6.7%	4.2%
6-10 years	4.0%	10.1%	7.2%
11-20 years	6.5%	14.3%	10.1%
21+ years	12.9%	24.9%	16.0%

Source: Morningstar analysis using DCOM. Results are adjusted for comparison strategy, age-60 equity-positioning category, salary, and starting balance.

Two patterns emerge. First, the managed-account advantage increases with remaining horizon under every plan design. This pattern is a function of the higher contribution rates incorporated into many of the managed-account simulations, as we noted earlier.

Second, the increase is substantially larger in automatic-enrollment plans without escalation. The adjusted P1 advantage rises from about 7% for participants close to age 65 to approximately 25% among participants with more than 20 years remaining.

Among participants with the same long horizon, the corresponding advantage is about 13% in automatic-enrollment plans with escalation and 16% in voluntary-enrollment plans.

The result is consistent with both the earlier literature and Morningstar's previous plan-design analysis. Automatic escalation already addresses an important source of retirement saving shortfalls. When a plan incorporates both automatic enrollment and escalation, there may simply be less behavioral headroom remaining for a managed account to improve the accumulation path.

The Impact of Changing Equity Exposure

We compared each participant's managed-account equity allocation with the comparison strategy at age 60. Participants were classified according to whether the managed account held materially less equity, roughly similar equity, or materially more equity than the comparison strategy.

In the most severe P1 scenario, lower managed-account equity is associated with larger relative gains. This result is consistent with participant-specific derisking providing value when the market outcome is extremely adverse.

However, lower equity is clearly not necessary for managed-account outperformance. Managed accounts also frequently outperform when their equity exposure is similar to the comparison strategy and when their equity exposure is greater.

As the adverse scenario becomes less extreme, the relationship changes further. In the P5 scenario, the penalty associated with higher equity exposure becomes much smaller. By P10, higher managed-account equity is associated with larger relative outcomes rather than smaller ones.[1]

Overall, these results indicate that the managed-account advantage in adverse scenarios is not explained simply by lower equity exposure. Differences in saving behavior also contribute to the projected wealth differences.

The current analysis cannot isolate the precise contribution of asset-class diversification, rebalancing, contribution changes, or other personalized decisions. Those mechanisms therefore should be treated as hypotheses for further research rather than as established causal explanations.

The Downside Result Strengthens as the Scenario Becomes More Severe

Next, we analyze whether the incremental managed-account effect increases progressively as the status quo outcome deteriorates. We find that it does.

Relative to the participant's P50 path, the mean incremental managed-account effect is approximately:

1. 1.2% at P10
2. 1.9% at P5
3. 4.2% at P1

The gradient is monotonic and is stronger relative to DIY at each level of severity.

We also replaced the median P50 path with the already-adverse P25 path as the benchmark. As expected, the P1 contrast becomes smaller, but it remains positive. The mean incremental effect falls from approximately 4.2% using P50 to approximately 3.5% using P25.

Together, these tests make it harder to attribute the result to an arbitrary choice of benchmark. The broader findings are also robust to alternative specifications of equity positioning, outcome measurement, and account-balance controls.

1 A continuous analysis of the equity difference produces the same qualitative result. A nonlinear specification provides the best description: in the deepest tail, large reductions in equity exposure are associated with especially strong managed-account outcomes, while in less severe adverse environments greater equity exposure increasingly becomes associated with stronger relative accumulation. The explanatory power added by the equity variables, however, is modest compared with the much larger differences associated with horizon, comparison strategy, and plan design.

What This Means for Plan Sponsors

Three implications stand out. First, managed accounts should be evaluated relative to the investment strategy participants would otherwise use. The incremental opportunity is substantially different for DIY investors and participants already using a professionally managed target-date fund.

Second, as we have previously highlighted, plan design matters. Automatic features can themselves improve participant behavior, thereby changing the amount of additional value personalization can potentially provide. Managed-account evaluations that ignore the underlying plan design risk comparing unlike populations.

Third, the results reinforce the importance of considering both saving and investment behavior when evaluating managed accounts. The projected differences examined here do not simply reflect changes in asset allocation; differences in contribution behavior are also an important component of projected outcomes. The results also suggest that plan sponsors should be cautious about evaluating managed accounts using a single metric. Contribution changes, portfolio allocation, comparison strategy, existing automatic features, and investment horizon can all affect the size and source of the projected benefit.

Conclusion

The central finding of this analysis is not that managed accounts provide universal protection against bad markets. Rather, it is that managed accounts have conditional value under adverse market scenarios, and that value differs substantially depending on the participant's alternative strategy and plan environment.

Overall, we find that managed account users would have substantially higher projected age-65 wealth on average among the most adverse market paths examined. Their relative advantage is especially strong versus DIY portfolios.

The results also show that plan design matters. Managed accounts have the greatest relative opportunity in automatic-enrollment plans without automatic escalation, while plans that already combine automatic enrollment and escalation leave less behavioral room for improvement. Importantly, these results are not simply explained by managed accounts reducing equity exposure. Differences in saving behavior are an important component of projected outcomes, while portfolio positioning can also contribute, particularly in the most adverse scenarios.

For plan sponsors, the results reinforce that managed accounts should be evaluated relative to what the plan and participant would otherwise be doing. The relevant question is not whether managed accounts provide "downside protection" in the abstract, but where and relative to what alternative personalization has the greatest opportunity to improve projected outcomes.

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