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Getting Beyond Ordinary MANAGING PLAN COSTS IN AUTOMATIC PROGRAMS

EXECUTIVE SUMMARY

Plan sponsors today are faced with unprecedented challenges in offering effective retirement plans. Achieving plan objectives in an environment of constrained budgets, talent competition, and increasingly complex fiduciary requirements can sometimes seem like a difficult balancing act.

However, with the right combination of plan design—employer contributions, eligibility, and vesting—and automatic program features, retirement plan effectiveness can often be improved within reasonable budget levels.

In this white paper, we will build on the evolution of automatic program design and the compelling reasons to consider automatic program implementation. We will:

- Illustrate ways that costs can be managed when adopting automatic program features by altering plan design components
- Demonstrate how foundational plan design components and automatic programs can interact to drive success in achieving specific plan objectives
- Provide a decision-making guide for revisiting plan design elements and designing a plan to optimize success within the budget available

Many plan sponsors have turned to automatic program features to help employees achieve better retirement outcomes. However, others have been reluctant to fully embrace these features, perceiving that more comprehensive automatic programs will result in unacceptable cost increases. This perception can become reality if other plan design elements are not taken into account and adjusted to meet plan and company cost objectives. Yet it is clear that automatic programs can have a dramatic impact on retirement readiness. In fact, in an Employee Benefit Research Institute (EBRI) report, "44% of Baby Boomers and Gen Xers are projected to be 'at risk' of running short of money in retirement, which is 5% to 8% lower than what was estimated in 2003." EBRI attributes the better numbers to the increasing use of automatic enrollment. (EBRI, 2012)

CREATING THE RIGHT BALANCE FOR A CUSTOM FIT

Effectively balancing costs with the right combination of design elements can result in a retirement plan that can help achieve the unique objectives of the company, the plan, and the employees within a sound set of fiduciary standards.

FIDUCIARY STANDARDS



It is important to note that changes to plan design can affect some employees, while fully implementing automatic programs will affect others. Understanding the specific impacts of any design change on each employee or group of employees is a critical component of the process of determining the "right" design for your organization. Creating a customized solution that is right for each company depends on the objectives of the plan, the right analytics to assist in making good decisions, and solid employee communications. The illustrations and ideas presented in this paper cover a wide range of options and are meant to serve as a starting point for thinking about design components. Any specific idea presented may not be right for a given company and situation. With these caveats in mind, there are numerous ways that plan design can be structured to manage costs to the desired level, generally by changing or adjusting three foundational components of the plan design:

Eligibility, and Vesting

- Employer contributions
- Vesting
- Eligibility

Limits on design creativity can include regulatory requirements, corporate philosophies and constraints, participant demographics, and the impact of plan design changes on employee relations and morale.

Employer Contributions

There is likely no component of design change more impactful in terms of managing direct plan costs than employer contributions. In automatic programs, using employer contributions as the primary incentive to encourage employees to enroll and increase savings becomes less important because the automation itself serves this role. According to a

2012 Harvard paper, a higher match rate has only a small effect on savings plan contributions. Other behavioral approaches to changing savings plan outcomes-including automatic enrollment-potentially have a much greater impact on savings outcomes than do financial incentives, often at a much lower cost. (Brigitte C. Madrian, 2012) But, depending on each company's talent competition concerns and employee attitudes and demographics, there may need to be some incentive to encourage employees to remain in the plan and not opt out of participation.

Long-Term Costs

Primary leverage points in managing costs associated with automatic program implementation





In looking at possibilities for modifying the employer contribution design, there are four potential types of changes:

- 1. Change the match percentage while leaving the basic structure intact
- 2. Change the structure of the match formula by applying a different match to different groups of employees or by changing which deferrals are eligible for the match
- Change the timing of when the matching contribution is made, such as moving to an end-of-year contribution with a last-day rule
- 4. Move to a different type of contribution, such as a profit sharing or nonelective contribution

Each of these design points can be implemented independently, or some can be combined into a multiformula design. There are numerous choices, all of which have different levels of costs and different impacts on different participant groups. Choosing the right contribution design will depend on the objectives, the existing design, the desired effect to target employee groups, and the desired budget. It is important to consider that certain types of changes may require new analytics as to how new contribution designs may impact nondiscrimination testing (especially when a new design eliminates safe harbor protections).

Vesting

While not as effective as employer contribution design on controlling costs, implementing the right vesting schedule for each type of employer contribution can ensure that those employees who remain with the company receive the greatest benefits. However, there are limits when changing vesting within a plan. There are certain rules regarding protected benefits, and vested balances can never be taken away from a participant. With these limits in mind, there are three primary ways to alter vesting design:

- Create multiple vesting schedules one for each type of contribution that is utilized, such as a different vesting schedule for a match versus a profit sharing or nonelective contribution
- 2. Change the timing of when vesting occurs for new contribution types and/or new hires, such as lengthening the time on a cliff vesting schedule or shifting to an incremental vesting schedule over a longer time period
- Change the method by which vesting is calculated by utilizing hours of service versus elapsed time of employment

In addition to the design of the vesting itself, ensuring that the plan's forfeitures that result from unvested dollars are considered in the cost control analysis may be important in managing costs. Enabling forfeitures to be used to cover plan administrative costs or enabling their use in reducing employer contributions may be an additional means of reducing overall plan costs.

Eligibility

To promote positive retirement outcomes, it is clearly desirable to allow all employees to save toward their retirement as soon as they are hired. Yet, there are still ways that eligibility design can be used effectively in combination with employer contribution and vesting design options to manage costs.

Like vesting limitations, there are limits to eligibility design related to minimum age and service requirements and nondiscrimation requirements. The implementation of new eligibility rules must be planned, managed, and communicated carefully. With these cautions in mind, there are three primary ways to alter eligibility design:

- Change who is eligible for each type of contribution utilized, such as increasing tenure or age requirements for a profit sharing contribution
- 2. Change the timing of eligibility, such as a provision for a new hire to immediately participate in the plan but not be eligible for a company contribution for a year
- Change the nature of eligibility calculations, such as moving from an elapsed time to an hours-ofservice method



APPLYING THE CONCEPTS

With a good understanding of the impact that core plan design elements can have on cost and plan effectiveness, let's look at how these elements can work together with advanced automatic program features to achieve common plan objectives within a desired budget.

On the following pages, we will look at two companies with different plan features that wish to implement automatic programs, and we will consider some possible design changes that could be considered to manage costs and participant outcomes to desired levels.

These illustrations were developed using T. Rowe Price's Plan Meter projection tool—a tool that provides plan sponsors an analysis of projected participant replacement ratios by age group based on current plan design and based on various scenarios of alternative plan designs.

For each company, we have suggested a number of ways that plan designs can be modified using the levers of employer contributions and eligibility rules. These illustrations and their results, which are approximations based on plan demographics in two current T. Rowe Price clients, demonstrate how effective creative plan designs can be.

What to consider before applying methods from the illustrations

When considering plan redesigns, plan sponsors should incorporate actual plan data, comprehensive cost projection models, and detailed participant impact models before making final decisions on plan changes.

To keep the illustrations simple and straightforward, we have only modeled the scenarios within the cost structure of the defined contribution plan itself. It may also be possible to divert dollars from other compensation costs or from other benefit programs to fund some of the additional costs incurred through automatic program adoption. For example, for companies freezing or terminating defined benefit plans, this may be an ideal time to consider changes to the defined contribution plan as well, as this plan now assumes the primary role in helping employees retire successfully.

Also, a well-designed nonqualified deferred compensation program for highly compensated employees is often critical in helping these participants achieve their desired retirement income replacement savings. Here again, automatic features can assist by automatically depositing into the nonqualified plan contributions over the qualified plan deferral limits once the employee has enrolled in the nonqualified plan.

Modifying plan design should always be considered carefully as resources are required to decide upon and implement the changes, and employee reactions to changes must always be taken into consideration. However, the proven results of automatic program designs for new hires have demonstrated that these employees have more positive outcomes over time. Employing more advanced automatic program designs that impact all employees through reenrollment, using opt-out features for automatic deferral increases, and thoughtful resetting of assets into the qualified default investment alternative can simply help more employees more quickly and provide a best-practice consideration in saving and investing for existing long-term employees, not just new hires. And all of these results can be achieved by keeping budget targets and constraints in check.

Communication is key

As is true for all types of plan changes, an effective and thorough plan for communicating the changes to employees is critical to success. Similarly, when periodically reenrolling or thoughtfully resetting participants, a strong opt-out communications program for those being impacted will help ensure that participants aren't surprised by actions taken on their behalf and will create an opportunity to present a strong rationale for why the actions are being taken. Throughout this analysis and decision-making process, keeping the plan committee members involved and informed is often critical as this will assist in obtaining their perspective and gauging corporate and participant reactions.

ADDING A FULL RANGE OF AUTOMATIC FEATURES

ABC Company Plan

This company, with 3,120 employees, has very low participation in its retirement plan. The vast majority of employees are not on track to achieve a typical 70% target retirement income replacement ratio (from all sources) by the time they reach retirement age. To correct this, ABC is considering a full range of automatic features:

- Automatic enrollment of new hires
- Automatic enrollment of all existing eligible employees
- Automatic increase program for all participants

The company is concerned about the costs and would like to understand what the likely impact will be on participant outcomes. The scenarios below compare the potential costs and

outcomes of the plan's current features with four ways to implement a full range of automatic features.

Scenario 1 is based on adding automatic features alone. In Scenarios 2, 3, and 4, enhanced automatic features are coupled with plan design changes.



*Additional fiduciary requirements, including preparation and mailing of required Qualified Automatic Contribution Arrangement (QACA) notices, may add a cost factor.

ENHANCING A PLAN'S CURRENT AUTOMATIC FEATURES

XYZ Company Plan

Plan Costs

This company, with 4,233 employees, has reasonable participation in its retirement plan, reflecting the use of automatic enrollment of newly hired employees. However, the vast majority of employees are not on track to achieve a typical 70% target retirement income replacement ratio (from all sources) by the time they reach retirement age. To correct this, XYZ is considering adding:

- Automatic enrollment of all existing eligible employees
- Automatic increase program for all participants

The company is concerned about the costs and would like to understand

what the likely impact will be on participant outcomes. The scenarios below compare the potential costs and outcomes of the plan's current features with four ways to implement enhanced automatic features.

Scenario 1 is based on enhancing the plan's automatic features alone. In Scenarios 2, 3, and 4, enhanced automatic features are coupled with plan design changes.

	CURRENT SCENARIO	SCENARIO 1 Make no plan design changes other than enhancing automatic features	SCENARIO 2 Maintain annual costs at close to current rates while improving participant outcomes	SCENARIO 3 Reduce annual costs by at least 10% while improving participant outcomes	SCENARIO 4 Implement automatic programs with a QACA safe harbor design
Design Features	 100% match on the first 3% of deferrals 50% match on the next 3% of deferrals Automatic enrollment for new hires at a 3% default deferral rate 	 100% match on the first 3% of deferrals 50% match on the next 3% of deferrals Auto-enroll all eligible at 6% Auto-increase 1% each year up to 15% Auto-boost deferrals to 6% 	 50% match on the first 6% of deferrals 25% match on the next 1% of deferrals Auto-enroll all eligible at 7% Auto-increase 1% each year up to 15% Auto-boost deferrals to 7% 	 100% match on the first 3% of deferrals Auto-enroll all eligible at 6% Auto-increase 1% each year up to 15% Auto-boost deferrals to 3% 	 100% match on the first 1% of deferrals 50% match on the next 5% of deferrals Auto-enroll all eligible at 6% Auto-increase 1% each year up to the limit of 10% Auto-boost deferrals to 6%
Matching Contribution	\$7,543,557	\$10,135,134 a 34% increase	\$7,494,162 a 1% decrease	\$6,756,756 a 1% decrease	\$7,882,882 a 1% increase
Total Contribution Costs	\$7,543,557	\$10,135,134 a 34% increase	\$7,494,162 a 1% decrease	\$6,756,756 a 10% decrease	\$7,882,882 a 4.5% increase
Nonelective Contribution	85.1%	99.3% (assumes 5% opt-out rate)	99.3% (assumes 5% opt-out rate)	99.3% (assumes 5% opt-out rate)	99.3% (assumes 5% opt-out rate)
Participation Rate	26% 26% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4	57% 40% 40% 40% 40% 40% 40% 40% 40% 40% 40	53% 55% 58% 58% 58% 58% 58% 58% 58% 58% 58	52% 52% 37% 21% 4% 4% 4% 4%	46% 46% 21% 21% 4% 21% 4% 4% 4%
Results		By implementing automatic features more fully, XYZ could dramatically increase the average replacement ratio for younger employees while maintaining the current average rate for employees over age 60. However, without other design changes, annual costs would rise by 34%.	By restructuring the match formula, increasing initial default deferral rates, and increasing the auto-boost feature to maximize the new match formula, XYZ could still dramatically increase the average replacement ratio for younger employees while not harming the average for older employees over age 60, and keep annual costs at roughly the current level.	By decreasing the matching deferral rate to 3%, even with an aggressive approach to automatic features, XYZ can still dramatically improve participant outcomes for all employees younger than age 60 and maintain rates for those age 60 and above. This can all be accomplished while lowering overall annual employer contribution costs by more than 10%.	If XYZ Company was concerned with passing discrimination testing, it could implement a QACA safe harbor design. The company would not be required to perform discrimination testing, would create significantly better outcomes for younger employees, and would have minimal impact on older workers. This design would increase annual plan costs by 4.5%, a relatively small amount for such a dramatic improvement and safe harbor protections.*

^{*}Additional fiduciary requirements, including preparation and mailing of required Qualified Automatic Contribution Arrangement (QACA) notices, may add a cost factor.

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DECISION-MAKING GUIDE

In order to employ a sound decision-making process to maximize the value of the plan for all parties, there are five key steps that are typically required:

Key Steps

	START	COMPLETE
1. Establish the most critical plan objective and the types of advanced automatic features desired.		
2. Analyze the current plan in terms of costs and success against the core objective and the impact of automatic program design costs without any additional design changes.		
3. Model scenarios to optimize plan design within a desired budget level and analyze the impact on specific participant populations. If needed, perform projected discrimination tests (e.g., if safe harbor design is not used).* *		
 Finalize recommendations for plan design changes and obtain corporate and committee approvals for new plan changes. 		
5. Develop an implementation and communication plan.		

In addition to working with your plan design consultant and ERISA counsel to provide formal plan design options and detailed cost and impact projections, T. Rowe Price can assist you with tools and resources to help in each of these five key steps.

RETIREMENT INCOME PROJECTIONS

The future is uncertain; therefore, we predict many futures

Monte Carlo simulations model future uncertainty. In contrast to tools generating average outcomes, Monte Carlo analyses produce outcome ranges based on probability, thus incorporating future uncertainty.

Material assumptions include:

 Underlying long-term expected annual returns for the asset classes are not based on historical returns. Rather, they represent assumptions that take into account, among other things, historical returns. They also include our estimates for reinvested dividends and capital gains.

- These assumptions, as well as an assumed degree of fluctuation of returns around these long-term rates, are used to generate random monthly returns for each asset class over specified time periods.
- The monthly returns are then used to generate thousands of scenarios, representing a spectrum of possible return outcomes for the modeled asset classes. Success rates are based on these scenarios.

Material limitations include:

 The analysis relies on return assumptions, combined with a return model that generates a wide range of possible return scenarios from these assumptions. Despite our best efforts, there is no certainty that the assumptions for the model will accurately estimate asset class return rates going forward. As a consequence, the results of the analysis should be viewed as approximations, and users should allow a margin of error and not place too much reliance on the apparent precision of the results.

- Extreme market movements may occur more often than in the model.
- Some asset classes have relatively short histories. Actual long-term results for each asset class may differ from our assumptions—with those for classes with limited histories potentially diverging more.
- Market crises can cause asset classes to perform similarly, lowering the accuracy of our projected return assumptions and diminishing the benefits of diversification (that is, using many different asset classes) in ways not captured by the analysis. As a result, returns actually experienced by the investor may be more volatile than projected in our analysis.
- The model does not take into consideration short-term correlations among asset class returns ("correlation" is a measure of the degree in which returns are related to or dependent upon each other). It does not reflect the average duration of "bull" and "bear" markets, which can be longer than those modeled.
- Inflation is assumed to be constant, so variations are not reflected in our calculations.
- The analysis does not use all asset classes. Other asset classes may provide different returns or outcomes than those used.
- Taxes are not taken into account, nor are early withdrawal penalties.

^{**} The ability to create modeling scenarios is dependent on the level of plan and participant demographic data that a plan sponsor is able to provide to T. Rowe Price.

The analysis models asset classes, not investment products. As a result, the actual experience of an investor in a given investment product (e.g., a mutual fund) may differ from the range generated by the simulation, even if the broad asset allocation of the investment product is similar to the one being modeled. Possible reasons for divergence include, but are not limited to, active management by the manager of the investment product or the costs, fees, and other expenses associated with the investment product. Active management for any particular investment product-the selection of a portfolio of individual securities that differs from the broad asset classes modeled in the analysis-can lead to the investment product having higher or lower returns than the range in this analysis.

Model portfolio construction

Five model investment portfolios were designed by our investment professionals according to the principles of Modern Portfolio Theory, which is used to achieve effective diversification among different asset classes. An effectively diversified portfolio theoretically consists of all investable asset classes, including equities, bonds, real estate, foreign investments, commodities, precious metals, currencies, and others. Since it is unlikely that investors will own all of these assets, we selected the ones we believed to be the most appropriate for long-term investors. The asset classes used for the model portfolios are stocks, bonds, and short-term bonds. We did not consider real estate because of its illiquidity and the significant exposure many investors already have through homeownership. We believe the fixed income asset class we chose fairly represents the broad, liquid, domestic capital markets. We selected short-term, investment-grade bonds to provide stability and eliminated any explicit allocation to cash because we believe that the investor is best positioned to determine his/her own allocation to cash based on his/her near-term needs.

The portfolios were constructed based on our analysis of the complementary behavior of asset classes over long periods of time, which enables us to identify investment mixes that offer greater efficiency through low correlation.

Modeling assumptions

- The primary asset classes used for this analysis are stocks, bonds, and shortterm bonds. An effectively diversified portfolio theoretically involves all investable asset classes including stocks, bonds, real estate, foreign investments, commodities, precious metals, currencies, and others. Since it is unlikely that investors will own all of these assets, we selected the ones we believed to be the most appropriate for long-term investors.
- T. Rowe Price has analyzed a variety of retirement savings strategies using computer simulations to determine the likelihood of "success" (having at least one dollar remaining in the portfolio at the end of the retirement period) of each strategy, shown as a percentage in each grid. The initial withdrawal amount is the percentage of the initial value of the investments withdrawn in the first year where the entire amount is withdrawn on the first day of the year; in each subsequent year, the amount withdrawn is adjusted to reflect a 3% annual rate of inflation. The simulation success rates are based on simulating 10,000 possible future market scenarios and various retirement income strategies.
- Results of the analysis are driven primarily by the assumed long-term, compound rates of return of each asset class in the scenarios. Our corresponding assumptions, all presented in excess of 3% inflation, are as follows: for stocks, 4.90%; for bonds, 2.23%; and for short-term bonds, 1.38%.
- Investment expenses in the form of an expense ratio are subtracted from the return assumption as

follows: for stocks, 0.70%; for bonds, 0.60%; and for short-term bonds, 0.55%. These expenses represent what we believe to be a reasonable approximation of investing in these asset classes through a professionally managed mutual fund or other pooled investment product.

The results are not predictions, but they should be viewed as reasonable estimates.

IMPORTANT:

The Plan Meter projections or other information generated by a T. Rowe Price investment analysis tool regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. The simulations are based on a number of assumptions. There can be no assurance that the projected or simulated results will be achieved or sustained. The charts present only a range of possible outcomes. Results may vary with each use and over time, and such results may be better or worse than the simulated scenarios. Clients should be aware that the potential for loss (or gain) may be greater than demonstrated in the simulations.

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