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Retirement Plan Research

Where 401(k) Design and Corporate Profitability Cross Paths

Important Finding
2018 Study
New findings on the connections between 401(k) plan performance and corporate financial performance.

At T. Rowe Price, we believe that offering a well-designed 401(k) plan as part of a strong benefits package can help an organization attract, retain, and engage top talent. After all, an engaged, motivated workforce can directly affect a company's bottom line—at least, that's our theory. But showing the C-suite why they should invest more in the 401(k) plan has been challenging because it's difficult to demonstrate the true financial return a retirement program offers the company.

Until now. Our research reveals **significant correlations** between 401(k) plan performance and corporate financial performance. And the correlations don't just occur in large, highly profitable companies, but in companies of all sizes and in all industry sectors.

Our research uses BrightScope ratings to indicate a plan's performance. BrightScope rates plans on a scale from "great" to "poor."

Key findings

- "Great" 401(k) plans—ones that have above-average performance outcomes according to BrightScope®—are very likely to be sponsored by companies that have **20%–80% higher** corporate profitability than companies with "average" plans.
- Conversely, poorly performing plans are strongly associated with companies that have corporate profitability **up to 80% lower** than companies with average plans.
- We see significant correlations between 401(k) plan and corporate financial performance *within and across* industry sectors, no matter the size of the company.[1]
- Most companies benchmark 401(k) outcomes and corporate profitability separately. Comparing them together against your peers could provide greater insight into how well you're doing against the competition—both for internal analysis and external performance measures.
- Correlation isn't the same as causality. We can't say that building a better 401(k) plan alone will make your company more profitable. But there is strong correlation between the two, and the relationship is significant.

[1]Our data set included plans with more than $50 million up to $36 billion in plan assets. In our regression analysis, we controlled for plan size, meaning that the correlations we report will hold irrespective of plan size. We suspect that similar correlations exist for plans with assets below $50 million and over $36 billion.

Regression analysis is a tool that is useful for describing the relationship between two or more variables. It helps to explain an observation and adds weight or confidence to any findings.

In our study, we looked to describe the relationship between 401(k) performance and corporate financial performance. We call attention to results where the confidence rate is greater than 95%.

Companies with higher-performing plans tend to have higher gross margins and be more profitable than their peers with lower-performing plans.

401(k) plan outcomes and corporate financial performance

To demonstrate the value of a 401(k) plan to a company's bottom line, we looked at the relationships between common corporate financial performance measures (used by CFOs) and markers of successful 401(k) plans (used by Human Resources):

Corporate Financial Performance Measures	401(k) Plans' Success Markers
▪ Gross margin ▪ Net income per employee ▪ Gross profit per employee ▪ Revenue per employee	▪ Company generosity (match or other employer contributions) ▪ Salary deferral ▪ Participation ▪ Account balance

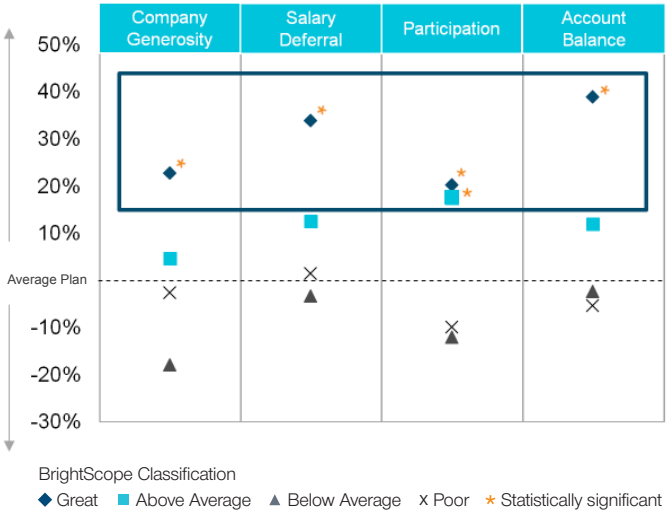
Finding #1: There's a correlation between higher gross margins and high-performing 401(k) plans

What we found: Regardless of plan size or company industrial sector, companies with higher-performing plans (i.e., those with "great" generosity, deferrals, participation, and account balances) are more likely to have significantly higher gross margins than "average" plans. (Gross margin is the difference between revenue and the cost of goods sold, divided by revenue.)

What the research says: Figure 1 shows the relationship between a company's gross margins and its 401(k) plan's performance measured by the plan's success markers. The regression results indicate that companies with high-performing 401(k) plans tend to have significantly higher gross margins than companies with average-performing 401(k) plans—even after accounting for industry or plan size. For example, when comparing large retail grocery companies, the companies with "great" 401(k) plans also had higher profitability.

Why this matters: While other factors may be at play, we suspect there may be symbiosis between higher-performing 401(k) plans and higher gross margins—a win for both a company's benefits team and CFO.

Figure 1: Percentage Change in Gross Margin (compared in relationship with the "average" plan)



What the chart shows:

Companies with "great" plans (based on company generosity, salary deferrals, participation, and account balances) have gross margins that are **20%–40% greater** than companies with average plans.

Sources: T. Rowe Price, BrightScope, and Compustat.

Statistical significance is a way to indicate that results are not likely to have occurred randomly or by chance. For our research, statistical significance attaches high confidence (greater than 95%) that the reported correlations are different from the baseline case (i.e., correlation between performance measures and "average" plan outcomes).

Finding #2: Net income per employee indicates that investing in the 401(k) plan could correlate to increased profitability

What we found: There are correlations between plan performance and net income per employee (which is a company's net income divided by the number of employees). Companies with "below average" or "poor" 401(k) plans are more likely to have lower net income per employee. Conversely, companies with "above average" or "great" plan attributes are more likely to have higher net income per employee.

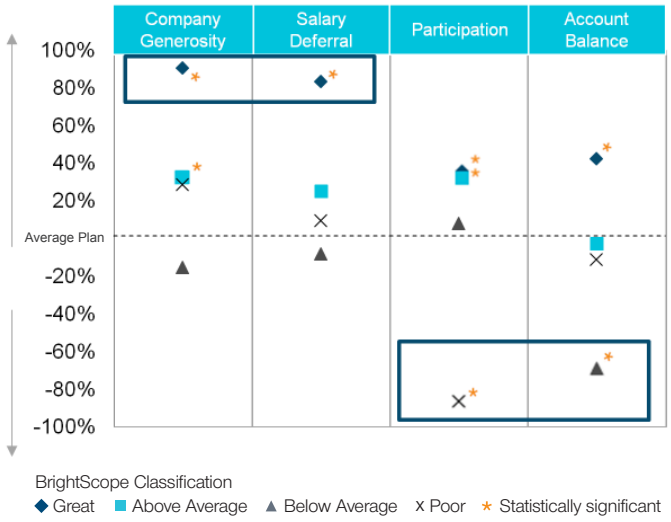
What the research says: Figure 2 shows the correlations between plan performance and net income per employee. There are statistically significant, negative correlations between plans with low average account balances or low participation rates and companies with lower net income per employee. At the same time, plans with great performance have correlations to higher net income per employee.

Why this matters: In Finding #1, some critics of the research might say that the correlation between better performance in retirement plans and higher gross margins simply means that more profitable companies can afford to fund better 401(k) programs. But the correlations between plan performance and net income per employee suggest that there is a symbiotic relationship between plan performance and corporate financial performance.

As Figure 2 shows, high-performing companies benefit from well-performing 401(k) plans, and poorly performing companies can suffer from having poorly performing 401(k) plans. The common denominator between these companies is their employees, who benefit from the 401(k) plans and directly affect corporate profitability. For CFOs, this gets to the heart of employee productivity, profitability, and the operational leverage achieved by maximizing income per employee. While it's true that more profitable companies can invest more in their 401(k) plan, there's also a potential downside for companies that don't invest in the 401(k) plan.

Companies with "below average" or "poor" 401(k) plans are more likely to have lower net income per employee. Conversely, companies with "above average" or "great" plans are more likely to have higher net income per employee.

Figure 2: Percentage Change in Net Income per Employee



What the chart shows:

There's a statistically significant relationship between a variety of plan measures and net income per employee. Companies with "great" plans have net income per employee that is **40%–80% higher** than companies with "average" plans.

Sources: T. Rowe Price, BrightScope, and Compustat.

Finding #3: Well-designed and high-performing 401(k) plans can influence employee behavior

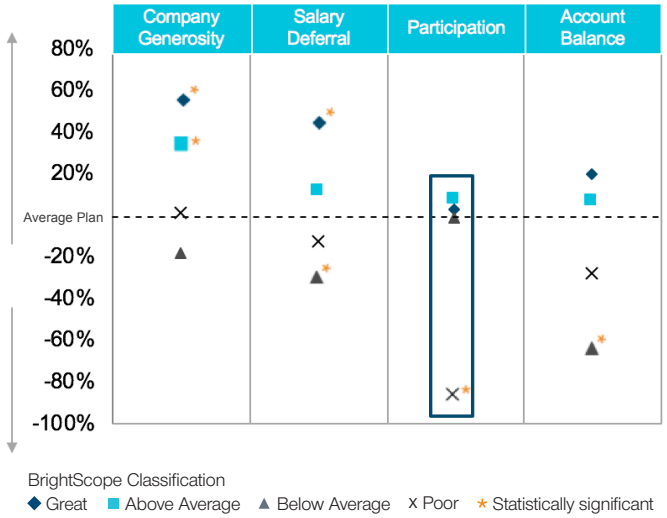
What we found: A range of plan outcome measures can serve as markers for both high levels of employee engagement or disengagement. No matter which measure of profit or income we examined, having a "great" 401(k) plan is potentially an advantage to the company's bottom line, while having a "poor" plan similarly is potentially a disadvantage.

What the research says: Figure 3 demonstrates that companies with higher-rated 401(k) plans also have higher per-employee productivity and per-employee revenue. Conversely, companies with lower-rated 401(k) plans also have lower per-employee productivity and per-employee revenue.

No matter which measure of profit or income we examined, having a "great" 401(k) plan could be an advantage to the company's bottom line, while having a "poor" plan could be a disadvantage.

Why this matters: While there may be higher costs associated with creating better 401(k) plans, the additional costs potentially could be mitigated through the added productivity and margin. In other words, we see the potential for a correlated return on investment.

Figure 3: Percentage Change in Revenue per Employee



Sources: T. Rowe Price, BrightScope, and Compustat.

What the chart shows:

Revenue per employee is **20%–60% higher** for companies with "great" plans than for those with "average" plans. Conversely, companies with "poor" or below-average plans have **up to 80% lower** revenue per employee.

A quick summary of the data

- Profits and plan performance go hand in hand. Our research team observed a statistically significant relationship between plan outcomes and company financial performance.
- "Great" plan outcomes are significantly correlated with higher revenue and profitability. But "poor" or "below average" plan outcomes correlate with lower gross margins, gross profits per employees, net income per employee, and revenue per employee.
- The data results show that there are potential benefits when companies invest in their 401(k) plans—and downsides when they don't.
- There are a variety of levers an organization can use to increase corporate financial performance. What this research shows is that the correlation between 401(k) plan and corporate financial performance could be a potential lever companies can use.

Companies don't need to be solely reliant on funding company matches or other employer contributions to positively drive plan outcomes. There are many ways to strengthen a plan and improve its performance—for example, through plan design and smarter employee engagement—without necessarily increasing its cost structure.

How CFOs view the value of 401(k) plans

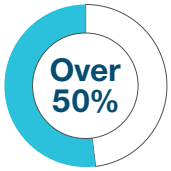
Our data results show correlation between a company's profitability and the strength of its 401(k) plan. But do CFOs value retirement programs as they would other items that impact a company's financials? In turn, how could plan sponsors use the data with the C-suite to build a case for increasing investment in the 401(k) plan?

The research team commissioned a third-party research firm to interview CFOs[2] and obtain the answers to three questions:

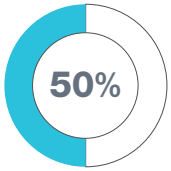
- Do you believe that a well-designed 401(k) plan can contribute to corporate financial performance?
- What impact does the 401(k) plan have on your organization? Does it impact your bottom line?
- What are the barriers to adopting the view that a well-designed and well-performing 401(k) plan can contribute to corporate financial performance?

CFOs' attitudes are mixed

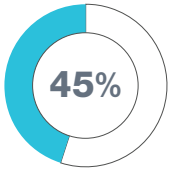
While over half of the interviewed CFOs say that a well-designed 401(k) plan can directly influence better company performance, many doubt the plan's effects can be measured—and some doubt there is an impact at all.



believe a well-designed 401(k) can influence corporate profitability



are skeptical value can be measured



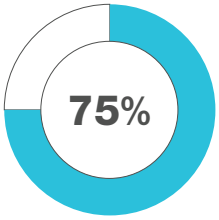
believe that 401(k) plan design has no impact

There is a silver lining

CFOs largely do see tangible benefits from offering well-designed, high-performing plans but in a more traditional sense: Plans help employees prepare financially for retirement, assist with recruiting and retaining talent, and boost employee morale. However, not one interviewed CFO mentioned a 401(k) plan's possible role in enabling profitability.

[2]The interviews were conducted on a blind basis, meaning that the interviewees did not know that T. Rowe Price sponsored the research.

But they're open to examining the possibilities. Three-quarters of the CFOs did not reject the idea of a potential correlation between plan performance and corporate financial performance.



of CFOs are open to further research into plan influence on profitability

The challenge is overcoming two critical barriers:

- There is a need for a framework to assess how 401(k) plan performance and corporate profitability are connected.
- CFOs need access to data in order to assess the connection.

The significant tax reform bill passed in December 2017 reduced the top marginal corporate tax rate from 35% to 21%. Some companies have used the tax savings to enhance employee benefits. It may be a good time for your benefits team to make a case for investing in your retirement program, starting with your plan's outcomes benchmarked against your peers' and this research study.

Putting the research into action

For plan sponsors looking to make a case for increasing the company's investment in the 401(k) plan, keep these steps in mind.

☑ **Benchmark your plan's and organization's outcomes against your peers'**

Comparing just your plan's outcomes may not be enough. We believe that a good framework for discussions with the C-suite would include pairing plan objectives with corporate profitability measures to give you a better idea of how well both the plan and company are performing against your peers.

☑ **Schedule time with your CFO**

Share your findings and this research with your CFO to make a case for measuring plan and corporate financial performance together.

☑ **Apply findings to your plan**

There are a variety of ways companies can improve a 401(k) plan's design and success. For existing plans record kept at T. Rowe Price, we can model different scenarios and provide costs for implementing changes, if applicable.

About the study

As part of the research study, representatives from T. Rowe Price's Retirement Plan Services, Retirement and Financial Education, and Customer and Market Insights teams joined forces for the first time with our Quantitative Equities group—the same group that identifies potential investments for our funds. We identified 332 publicly traded companies that together sponsor 485 plans, which each had greater than $50 million in assets. The 485 plans also had a BrightScope rating.

The Quantitative Equities team created an analytical framework using regression analysis to determine if there was a correlation between a retirement plan's BrightScope rating and one of five key measures of corporate financial performance: profitability, capital allocation, risk, growth, and environmental, social, and governance (ESG) criteria.

The team determined that there is a strong correlation between BrightScope ratings and profitability measures. Next, using the companies' BrightScope ratings as a proxy for 401(k) plan performance, the research team created another regression analysis framework to determine if correlations exist between corporate performance and specific 401(k) plan outcomes (company generosity, participation, deferrals, and account balances).

The study analyzed the correlation between a wide range of variables measuring corporate performance and 401(k) plan outcomes. We also controlled for factors such as the size of the company and its economic sector so that the results were not skewed. (For example, the retail industry tends to have lower profit margins than the financial industry.)