Center for Retirement & Policy Studies

Retirement Plan Landscape Report

An In-Depth Look at the Trends and Forces Reshaping U.S. Retirement Plans

March 2022

Letter from Brock Johnson

President, Morningstar Retirement Services

This year, we launched our new Center for Retirement & Policy Studies, with a mission to improve the U.S. retirement system by arming decision-makers with unbiased and actionable data and analysis. This inaugural report does just that by examining the backbone of the U.S. retirement system: private-sector employer-sponsored retirement plans.

Using Morningstar's unique data, our new center makes two major contributions to the research on our retirement system. First, we make projections for 2020 to create a timelier set of defined-contribution-plan trend data than has typically been available, as data is still only complete up to 2019. Second, we match investments reported by retirement plans to our investment database—a laborious and painstaking process—to add insights into the system.

Even experienced professionals will be surprised by some of what we found. Critically, the retirement system is much more fragile than many of us would like to believe. I care deeply about expanding retirement coverage to the millions of working people in the U.S. who lack access to a retirement plan at work. This report raises a different concern: ensuring we do not lose ground. The retirement system relies on a few thousand employers to cover most people saving for retirement. An economic downturn or even a systemic shift to different kinds of employment could mean even fewer people have the opportunity to save for a secure future.

What is less surprising but nevertheless important, is that this report also reveals that most small plans have higher investment fees than their larger counterparts. It is clear that the industry needs to do a better job helping these employers so that their workers have the same opportunities to save for retirement as those who work for much larger companies. Based on these findings, people working for employers with small plans could easily have 10% fewer assets in retirement than they would if they saved just as much and worked for an employer with a larger plan.

Another thing that struck me as I read this report is how important personalized advice will be for workers as the defined-contribution system matures—particularly for the millions of baby boomers who have spent their careers transitioning from a traditional defined-benefit pension to a defined-contribution system. Our retirement system also seems to have reached the limits of what off-the-shelf target-date funds can achieve (although they are a wonderful innovation), particularly as millions of workers start to retire and drawdown their defined-contribution benefits.

I hope you enjoy reading this report and can use it as a reference for key answers about the retirement system. This will be first of many contributions from our new Center for Retirement & Policy Studies.

Brock Johnson

Introduction

This report explores four aspects of the U.S. retirement system. First, we examine major trends in the U.S. system in terms of coverage, assets, and the number of plans. Second, we take a deep dive on the costs to workers and retirees of these plans and their investments. Third, we look at the kind of investments these plans hold. Although this report is mostly focused on defined-contribution, or DC, plans, we conclude by examining defined-benefit, or DB, plans, which continue to contribute to millions of Americans' retirement security. Note that this report is limited to plans that are covered by Title I of the Employee Retirement Income Security Act of 1974, or ERISA, as these plans file the Form 5500 annually, providing a starting point for analysis.

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Executive Summary

At first glance, the U.S. retirement system appears to be stable, but that obscures the fragility of a system that loses thousands of plans and billions of assets every year.

The U.S. DC system relies on new employers to offer retirement plans every year to compensate for the more than 380,000 plans that closed over the period from 2011 to 2020. Similarly, the system relies on new contributions and strong returns to mask outflows of more than $400 billion a year since 2015. In fact, plan assets actually shrink in years without strong investment returns. A few years of poor returns would reduce many plans' assets, their market power, and thus their capacity to offer institutionally priced investment options. The COVID-19 pandemic did not dramatically impact retirement security, but policymakers and plan sponsors must be on guard: future economic disruptions certainly could mean the system stops adding plans at a fast enough rate to replace the tens of thousands that close every year. As the retirement system only covers around two thirds of workers today, such headwinds could mean more and more workers fall behind in saving for a secure retirement. Finally, economic shocks that negatively affect even a small percentage of the 2,115 employers who fully cover half of workers with retirement plans in the U.S. might result in dramatically fewer workers with access to retirement, making it difficult for them to prepare.

Plan participants pay different amounts to invest in DC plans depending on where they work.

People who work for smaller employers and participate in small plans pay around double the cost to invest as participants at larger plans, around 88 basis points in total compared with 41 basis points, respectively. Small plans also feature a much wider range of fees between plans, with more than 30% of plans costing participants more than 100 basis points in total. Further, many plans are still outliers, with unusually high fees relative to their peers, particularly outside of the largest thousand or so plans. In short, the U.S. system does not work nearly as well for people who are not fortunate enough to work for larger, established employers. Congress recently created pooled employer plans, which could help close this gap somewhat, but so far there has been little uptake.

Plans of all sizes offer similar investment strategies, but the largest plans have shifted away from mutual funds as their vehicle of choice.

The largest plans in the U.S. started to abandon mutual funds 10 years ago and today hold nearly 45% of their assets in collective investment trusts—pooled vehicles that often offer similar strategies but are less regulated and can be much less expensive for participants. Plans of other sizes have not increased their use of collective investment trusts at all. Plans of all sizes continue to invest the majority of their assets in actively managed funds, with more assets in active strategies among smaller plans. In terms of sustainability, we see evidence that retirement plan participants are exposed to higher-than-normal environmental, social, and governance risks, although some plans have investment options that account for these risks. In sum, most plan sponsors invest in similar strategies, but only the largest plan sponsors have adopted the vehicle that typically lets them offer the lowest cost, collective investment trusts.

DB pension plans may be disappearing, but they play an important role in millions of Americans' retirements, and people will collect these benefits for decades.

DB plans accounted for more than 30% of distributions paid to participants in 2019, and they do not appear to have peaked. In fact, 12.8 million people, between family beneficiaries and retired participants, are collecting these traditional pension benefits today, and this number will continue to grow. Approximately 8.8 million people who are no longer working are still entitled to future benefits, and 11.7 million people who are still working will eventually receive benefits. Employers need to provide investment options in their DC plans that can also help the millions of people with some traditional pension benefits attain a secure retirement through a mix of their own savings and these traditional pension benefits. Policymakers should not lose focus on the DB system and should help participants transition by encouraging personalized investment recommendations.

SECTION ONE

The Apparent Stability of the U.S. Retirement System Masks Its True Deep Fragility

Key Findings

At first glance, the U.S. retirement system appears to be stable, but that obscures the fragility of a system that loses thousands of plans and billions of assets every year. The U.S. DC system relies on new employers to offer retirement plans every year to compensate for the more than 380,000 plans that closed over the period from 2011 to 2020. Similarly, the system relies on new contributions and strong returns to mask outflows of more than $400 billion a year since 2015, reported by plans in their annual filings. In fact, plan assets actually shrink in years without strong investment returns. A few years of poor returns would reduce many plans' assets, their market power, and thus their capacity to offer institutionally priced investment options. The COVID-19 pandemic did not dramatically impact retirement security, but policymakers and plan sponsors must be on guard—future economic disruptions certainly could mean the system stops adding plans at a fast enough rate to replace the tens of thousands that close every year. As the retirement system only covers around two thirds of workers today, such headwinds could mean more and more workers fall behind in saving for a secure retirement. Finally, economic shocks that negatively affect even a small percentage of the 2,115 employers who fully cover half of workers with retirement plans in the U.S. might result in dramatically fewer workers with access to retirement, making it difficult for them to prepare.

380,000 plans
closed from 2011 to 2020

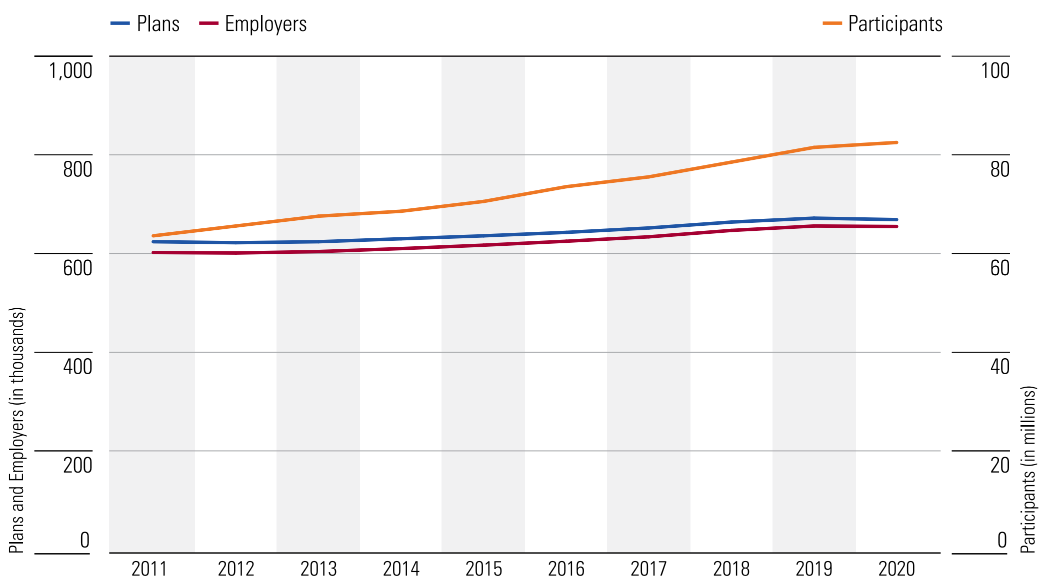
$400 billion
a year has left plans since 2015

2,115 employers
cover 50% of workers with retirement plans

At First Glance, the U.S. System Appears Stable

The U.S. retirement system appears to be stable. The system has covered approximately two thirds of workers in the private sector for decades, in either a DB or DC plan, according to data from the Bureau of Labor Statistics, and it has largely kept up with labor force participation.[1] The total number of private-sector DC plans has been mostly stable, starting at about 628,000 in 2011 and steadily adding around 4,056 net new plans a year through 2020. The number of employers offering DC plans follows a nearly identical trajectory, with slightly fewer employers than plans, as some employers maintain multiple retirement plans. The system also added around 1.8 million new DC participants each year, rising from 64.5 million participants in 2011 to 82.7 million participants in 2020. Plan assets appear stable and growing, steadily increasing most years over the past decade by an average of nearly $500 billion a year, rising from $3.76 trillion in 2011 to $8.25 trillion in 2020, albeit with some years in which assets declined relative to previous years.

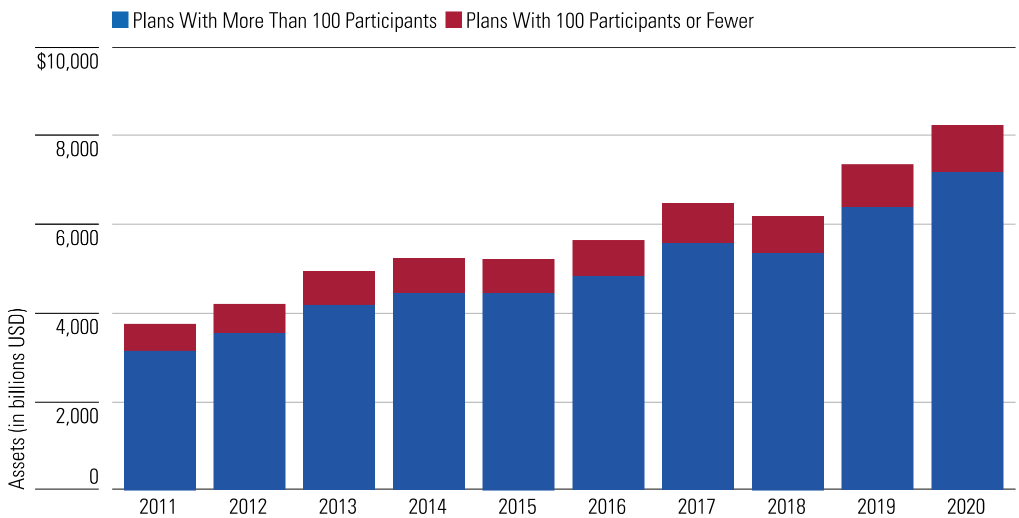
Exhibit 1 Total Plans, Participants, and Employers in Defined-Contribution Plans, 2011 to 2020



Source: Morningstar analysis of Form 5500 data and 2020 projections based on available filings.

[1] Bureau of Labor Statistics, U.S. Department of Labor. 2021. "National Compensation Survey: Employee Benefits in the United States." https://www.bls.gov/ncs/ncspubs.htm#/ncs/ncspubs.htm. Please note that the plan-level data comes from the Form 5500, as described in the methodology.

Exhibit 2 Total Assets Held in Defined-Contribution Plans, 2011 to 2020



Source: Morningstar analysis of Form 5500 data and 2020 projections based on available filings.

Notes: We highlight plans with fewer than 100 participants because these plans do not file nearly as much information with the DOL as their larger counterparts. See methodology section for additional information on this distinction. In later sections of this report, we will not always be able to discuss the characteristics of the assets in plans with fewer than 100 participants, but they represent a small portion of DC plan assets.

This high-level view masks massive churn in the system—of plans, employers, and assets. More than 38,000 plans shut down every year on average between 2011 and 2020, mostly because the sponsoring employer went out of business.[2] Luckily, over the same time period, the system added an average of over 42,000 plans every year, which is critical for maintaining the same levels of coverage. In terms of assets, we estimate that almost $4.61 trillion flowed out of retirement plans over this period in the form of rollovers out of the DC system to Individual Retirement Accounts and cash-outs, including some benefit payments.

The retirement system is complex, held together by incentives, expectations, and inertia to achieve a delicate balance that masks a constant movement.

The retirement system is complex, held together by incentives, expectations, and inertia to achieve a delicate balance that masks a constant movement. Should that balance shift, the effect would ultimately mean fewer opportunities to save for retirement, as without a workplace plan, workers do not enjoy the possibility of an employer match and face much lower caps on contributions. Furthermore, the system relies on robust returns to maintain asset growth. In 2015 and 2018, slightly down markets (negative 1.79% and negative 4.76% in 2015 and 2018, respectively, for a 60% equity, 40% bonds portfolio[3]) resulted in aggregate plan assets falling because participant contributions could not compensate for the flow of assets out of the system that plans experienced.

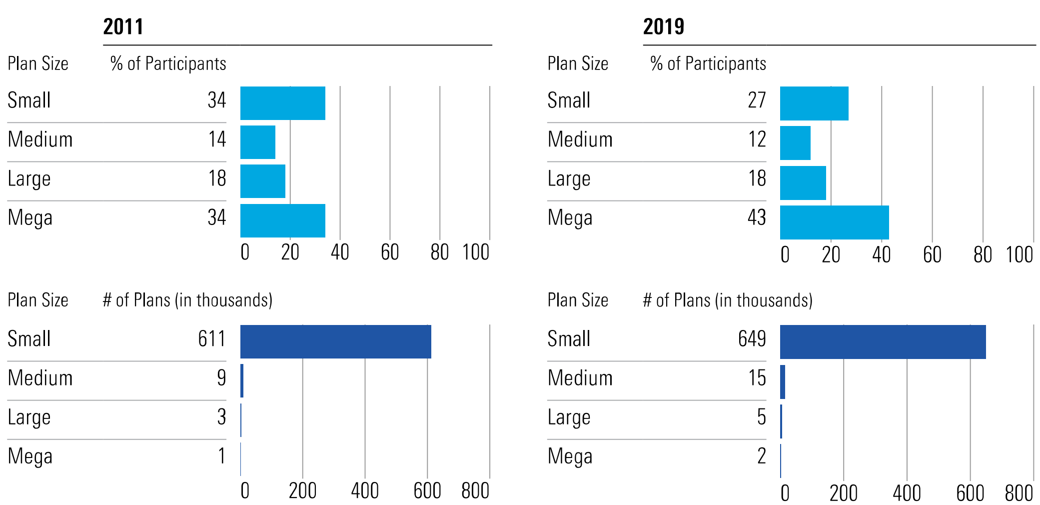
[2] We estimate that around 90% of these terminations were from employers going out of business.
[3] Based on the Morningstar Moderate Target Risk Index.

U.S. Retirement Security Relies on a Small Group of Employers

Plans with more than $500 million in assets—which we term mega plans[4]—have become more important to the retirement system over time, as shown in Exhibit 3. In 2011, these mega plans covered just 34% of participants, but by 2019, they had added almost 13.5 million more people and covered 43% of plan participants. Meanwhile, small and medium plans with $100 million or less in assets grew only modestly and covered a slightly smaller percentage of participants.

The gap between a small number of large plans covering a large number of participants, with hundreds of thousands of small plans covering everyone else, provides important context for many of the challenges policymakers and retirement-plan service providers face when trying to improve the system or to innovate. Many of the trends we identify in this paper started with the largest employers—fee contraction, adopting collective investment trusts, and defaulting participants into target-date funds. Many of the innovations retirement service providers and policymakers hope to introduce—lifetime income options, more customization in default investments, keeping more assets in plans—depend on these larger employers embracing them to succeed.

Exhibit 3 Percentage of Defined-Contribution Participants Covered by Small, Medium, Large, and Mega Plans

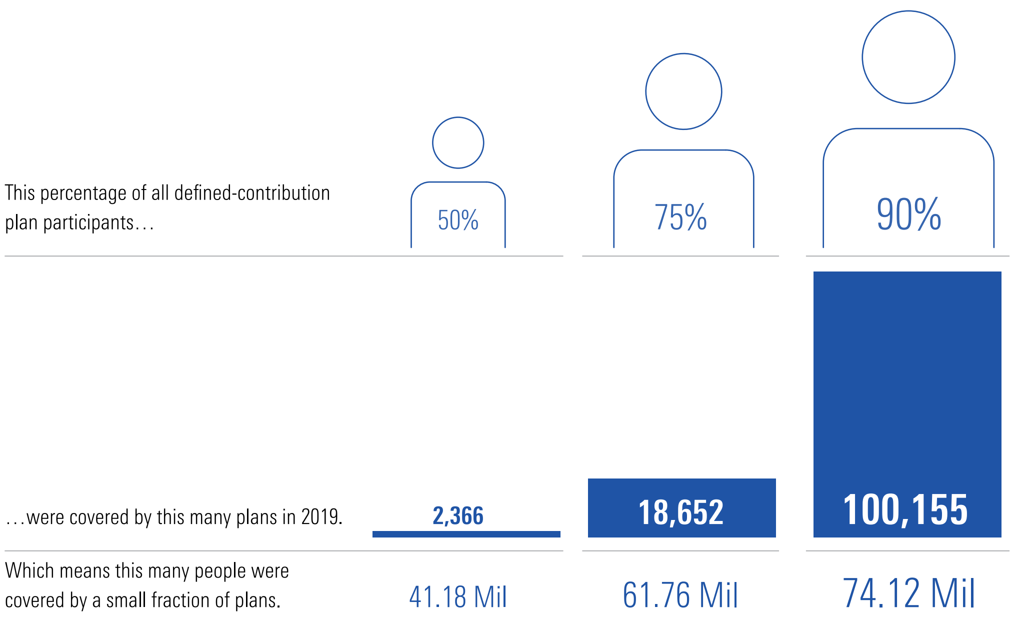


Source: Morningstar analysis of Form 5500 data.

Notes: Mega plans have more than $500 million in assets; large plans have $500 million or less in assets, but more than $100 million; medium plans have $100 million or less in assets, but more than $25 million; and small plans have $25 million or less in assets.

[4] Other studies use a different breakpoint for the largest plans, but we believe this threshold distinguishes a relatively homogenous cohort of plans with enough members to allow for meaningful analysis.

Exhibit 4 The Number of Plans That Cover the Majority of Defined-Contribution Participants



Source: Morningstar analysis of Form 5500 data.

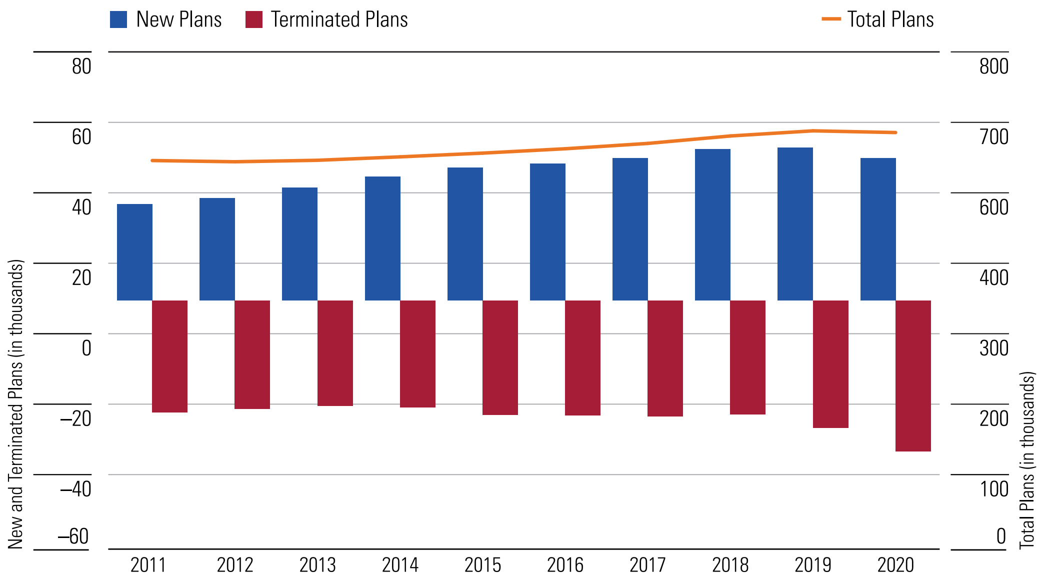
Taking a wider view, as of 2019, the U.S. retirement system relies on just 2,366 plans offered by 2,115 employers to cover half of all DC participants. This number of plans and employers has shrunk slightly from 2,451 plans and 2,122 employers in 2011. The continued importance of a small number of plans is demonstrated in Exhibit 4. Even 18,652 plans covering 75% of DC participants represent just 2.8% of plans, and around 15% of plans cover 90% of participants.

COVID Arrested, but Did Not Reverse, the Slow and Steady Growth of the DC System

Although a small number of employers cover a majority of participants, employers with small plans still cover millions of people, and the system relies on new plans continually entering the system to maintain coverage levels. The stability of the top-line total number of plans masks the fact that over the 10-year period between 2011 and 2020, more than 420,000 new plans were created and more than 380,000 were terminated, as shown in Exhibit 5. Almost all this churn was among plans with fewer than 100 participants, which accounted for 93% of plan terminations and 97% of newly created plans.

Although a small number of employers cover a majority of participants, employers with small plans still cover millions of people, and the system relies on new plans continually entering the system to maintain coverage levels.

Exhibit 5 New, Terminated, and Total Defined-Contribution Plans, 2011 to 2020



Source: Morningstar analysis of Form 5500 data and 2020 projections based on available filings.

Notes: We recognize terminated plans in the year following their termination filing.

The COVID-19 pandemic disrupted this churn, based on Morningstar's projections for the 2020 plan year. More plans terminated than in previous years in 2020, and employers created fewer new plans to take their place, likely as a result of more companies going out of business combined with fewer companies starting new plans as they dealt with the disruptions of the pandemic. As a result, the total number of plans fell slightly and the number of participants in the DC system stayed virtually flat. Over the previous nine years from 2011 to 2019, the system had added 4,815 net new plans and 1.99 million participants annually, on average.

Money Flows out of DC Plans at an Alarming Rate

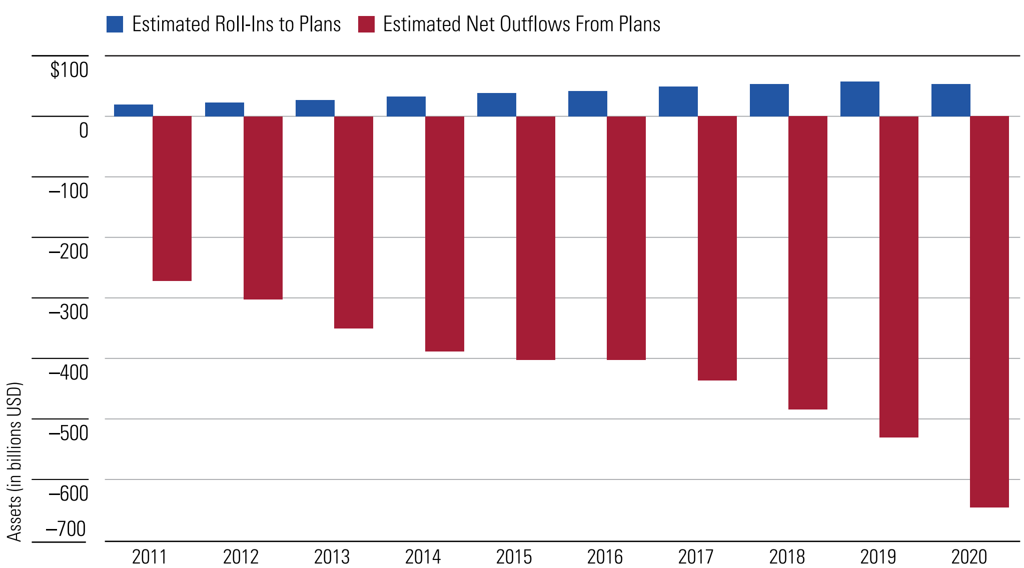
The drag on plan assets from participants removing money is extreme. Most of these withdrawals happen when workers switch employers or retire. As discussed, we estimate that almost $4.61 trillion flowed out of DC plans from 2011 to 2020 in the form of rollovers and cash-outs, including some benefit payments. We estimate the employer-sponsored retirement system was able to retain just $395 billion of these outflows, when participants shifted money into another DC plan through a roll-in. DC plans, therefore, lost on net around $4.21 trillion from these outflows. Exhibit 6 shows how small roll-ins are relative to net outflows from the DC system.

Rollovers include all direct and indirect transfers of money from a DC plan to an Individual Retirement Account, or IRA. Cash-outs include complete or partial withdrawals of a balance or structured withdrawals for retirement income. In terms of withdrawals for retirement income, based on estimates from the Employee Benefits Research Institute, or EBRI, and the in-flows into IRAs reported by the IRS, it is clear that the vast majority of withdrawals are not structured withdrawals.[5]

These constant outflows greatly reduce plan assets. If these outflows were reduced by half from the 2011 to 2020 time period, we estimate plans would have approximately $2.2 trillion more in them today.[6] Such a shift would represent a nearly 27% increase in assets. More assets in the DC system would help more sponsors gain the leverage to demand lower fees from asset managers. Further, it would mean more people could drawdown their assets during retirement through an employer-sponsored plan and potentially enjoy institutionally priced lifetime income options that a plan fiduciary has vetted.

As policymakers continue to focus on rollovers, even small differences in how many participants roll out of ERISA plans could add up to billions more dollars in the employer-sponsored retirement system. EBRI estimates that approximately 45% of these distributions are rollovers, although the remaining 55% could be cash-outs in which the money is no longer available for retirement, or cash-outs that are ultimately invested in an IRA.

Exhibit 6 Estimated Net Outflows From and Roll-Ins to Defined-Contribution Plans, 2011 to 2020

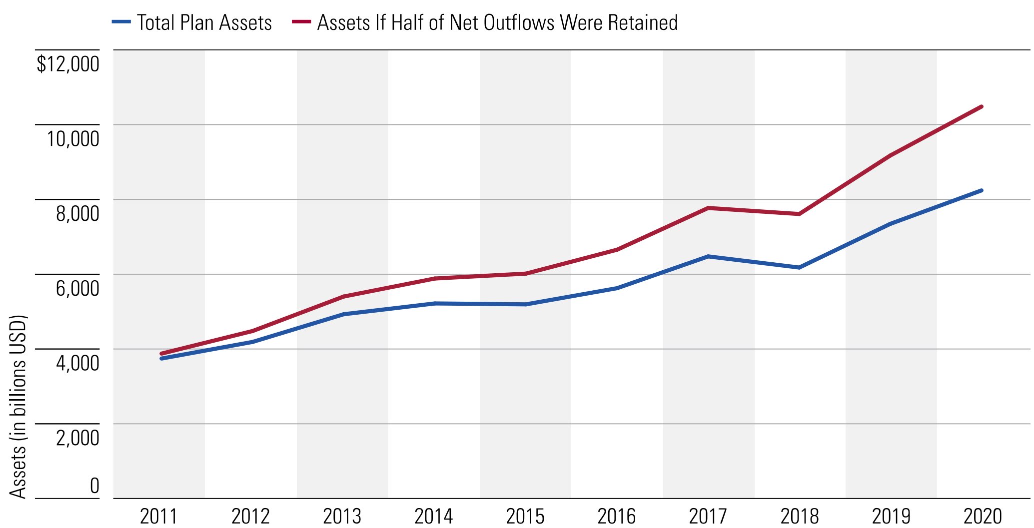


Source: Morningstar analysis of Form 5500 data and 2020 projections based on available filings.

Notes: See methodology section for details on this calculation. Net outflows include cash-outs, rollovers, and direct payments to beneficiaries, less roll-ins captured by the DC system when participants shift money into a DC plan. Net outflows do not include other plan distributions, such as payments for insurance contracts.

[5] EBRI, in analysis performed at Morningstar's request using the Retirement Security Projection Model, finds that just under 18.5% of assets at termination or retirement remain in participants' accounts. Even if this money were all used for structured withdrawals, most money would be for rollovers or cash-outs.
[6] As discussed in the methodology, we assume 4% of assets are withdrawn every year and we applied returns using the Morningstar U.S. Active Fund Target-Date Retirement category averages.

Exhibit 7 Potential Assets If Defined-Contribution Plans Captured Half of Net Outflows, 2011 to 2020

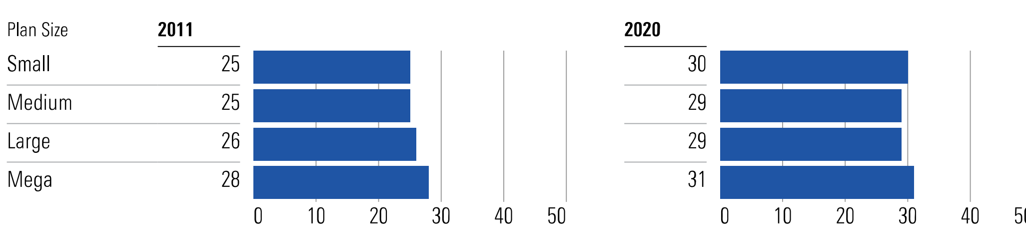


Source: Morningstar analysis of Form 5500 data and 2020 projections based on available filings.

Notes: See methodology section for description of methods, data, and calculations.

Not surprisingly, plans of all sizes generally do not retain participants after they separate from service, and they have not improved their numbers much over the past decade. Exhibit 8 illustrates the modest gains plans have made in growing the portion of their participants who are retired or separated. Of course, some plans do not want to retain these participants as they view them as a liability. Nonetheless, allowing the constant flow of people and money out of DC plans means there is tremendous opportunity for these plans to grow even larger should they convince a greater share of people to leave their assets in the plan when they separate from service or retire—which would help plans attain more leverage to negotiate lower fees and allow plans to serve participants through retirement.

Exhibit 8 Percentage of Defined-Contribution Plan Participants Who Are Retired or Separated by Plan Size



Source: Morningstar analysis of Form 5500 data and 2020 projections based on available filings.

Notes: Mega plans have more than $500 million in assets; large plans have $500 million or less in assets, but more than $100 million; medium plans have $100 million or less in assets, but more than $25 million; and small plans have $25 million or less in assets. Plans with fewer than 100 participants do not report this data, so the small category may not be fully representative. We exclude participants who have no assets in the plan.

Implications
Potential Disruptions Could Damage the Fragile Retirement System

Plans rely on solid returns to continue to grow their asset base because of the high level of net outflows.

In the only two years with negative returns (negative 1.79% and negative 4.76% in 2015 and 2018, respectively, for a 60% equity, 40% bonds portfolio based on the Morningstar Moderate Target Risk Index) over the past 10 years, plan assets shrunk because contributions could not compensate for the hundreds of billions of assets flowing out of the DC system that plans experience every year. This means that a few years of poor returns could reduce assets in many plans, as well as their market power and thus their capacity to offer institutionally priced investment options.

Changes that disincentivize employers to join the system could lead to a rapid decrease in the number of retirement plans, which forces policymakers to maintain different tax benefits for workers with and without retirement plans.

Congress has set up different tax benefits for people with and without employer-sponsored coverage. Without the tax benefits, many employers might not feel like they need to offer a plan—particularly if the decision-makers at a company and higher-paid employees could get the same benefits outside of a 401(k), they then would be less interested in it as a benefit. As the data in this section shows, while existing employers might not terminate their plans because of a change in tax benefits, many terminate every year for other reasons, and reducing incentives for new plans would immediately reduce the total number of employers offering retirement plans and the portion of workers covered by plans.

The concentration of participants in mega plans is a warning sign for the system.

A small group of large plans have considerable influence over the retirement system. The 2,115 employers who cover 50% of participants are certainly doing their part in a public/private partnership to increase access to retirement savings options and are helping more than 41 million people accumulate assets for retirement; however, the jobs of the future may not be with employers who offer these savings opportunities. Moreover, this concentration underscores that policymakers must maintain incentives that these large employers find attractive.

If DOL's 2020 prohibited transaction exemption reduces rollovers out of DC plans, it could supercharge plan assets.

DOL's 2020 prohibited transaction exemption, or PTE, puts additional scrutiny on rollovers, and various nonenforcement policies expire in February and June of 2022 that had delayed advisors from relying on it to recommend rollovers. If this PTE reduced net outflows by even 10%, it would have immediately resulted in $64.6 billion more in employer-sponsored retirement plan assets in 2020 and around $448 billion in increased plan assets if it had been in place over the previous 10 years.

SECTION TWO

DC Plan Costs Vary Enormously, Particularly Among Employers With Small Plans

Key Findings

Despite the fact that investors pay less today to invest than they ever have,[7] plan participants continue to pay different amounts to invest in their DC plans depending on their employer. People who work for smaller employers and participate in small plans pay around double the cost to invest as participants at larger plans—around 88 basis points in total compared with 41 basis points, respectively. Small plans also feature a much wider range of fees between plans, with more than 30% of plans costing participants more than 100 basis points in total. Further, many plans are still outliers, with unusually high fees relative to their peers, particularly outside of the largest thousand or so plans in the U.S. In short, the U.S. system does not work nearly as well for people who are not fortunate enough to work for larger, established employers. Congress recently created pooled employer plans, which could help close this gap somewhat, but so far there has been little uptake.

The median total cost for participants in small plans is

88 basis points

The median total cost for participants in mega plans is

41 basis points

30% of small plans

cost participants more than 100 basis points in total

[7] Johnson, B. & DiBenedetto, G. 2021. "2020 U.S. Fund Fee Study." https://www.morningstar.com/lp/annual-us-fund-fee-study.

Participants at the Largest Plans Pay About Half as Much as Those Working for Employers With Small Plans

The larger the plan, the less expensive it is likely to be for participants in it to invest for retirement, as illustrated in Exhibit 9. We examine the asset-weighted expenses associated with the plan, overall plan administration expenses, and the total cost, which is the sum of both these number on a plan-by-plan basis. As is clear, in both regards, scale is an enormous advantage. Exhibit 10 illustrates the wide range of the total fees across all plans—summing the asset-weighted investment fees and the administrative costs—which participants pay to save for retirement through a DC plan. It demonstrates that because the largest plans often have very low fees, most participants are in lower-fee plans.

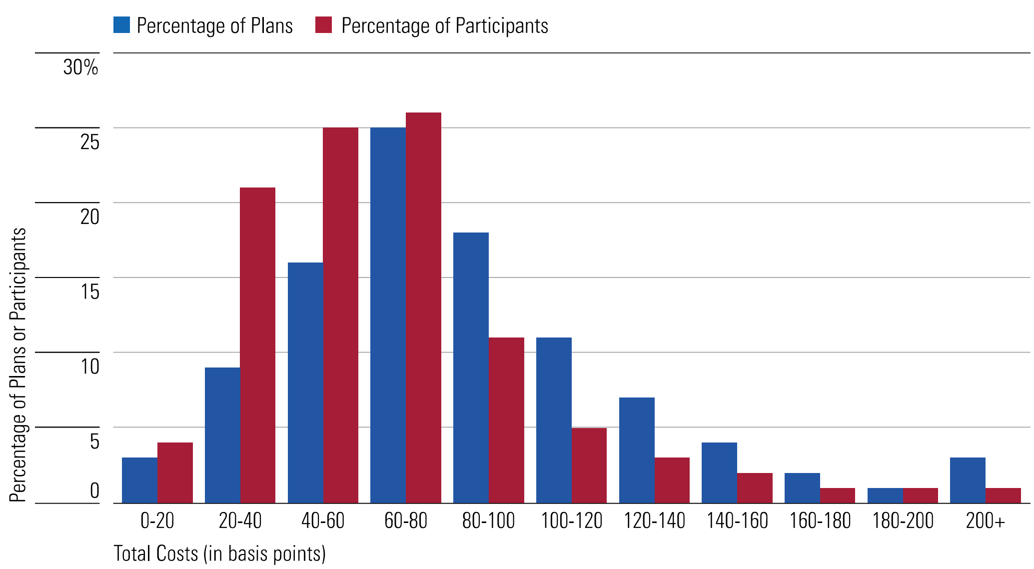
Exhibit 9 Median 2019 Defined-Contribution Total Costs by Plan Size (in basis points)

Plan Size	Investment Expenses	Plan Expenses	Total Costs
Small	43	37	88
Medium	45	16	63
Large	40	9	52
Mega	33	6	41

Source: Morningstar investment data matched with Form 5500 data for 2019.

Notes: Mega plans have more than $500 million in assets; large plans have $500 million or less in assets, but more than $100 million; medium plans have $100 million or less in assets, but more than $25 million; and small plans have $25 million or less. The median total cost is not the sum of the medians for investment expenses and plan expenses. Rather, we start with the sum of the investment expenses and plan expenses for each plan and then take the median.

Exhibit 10 Total Costs Participants Pay to Invest in Defined-Contribution Plans by Percentage of Plans and Percentage of Participants

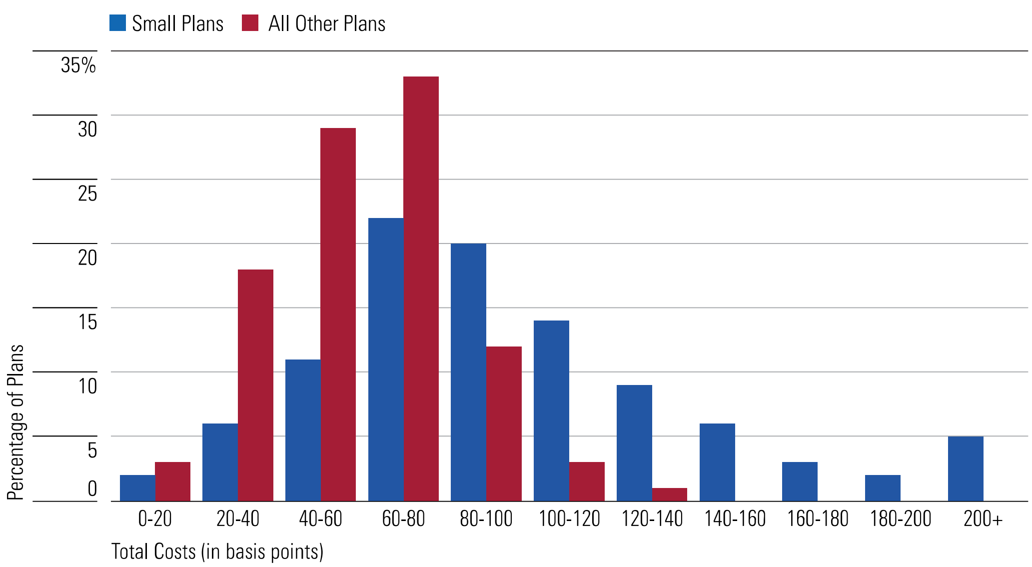


Source: Morningstar investment data matched with Form 5500 data for 2019.

Small-Plan Participants Pay a Much Wider Range of Fees

The spread of fees plan participants pay is particularly wide among smaller plans. Exhibit 11 shows the total costs for small plans and all other plans. The distribution of total costs for small plans is much wider than for larger ones, meaning any given worker is much more likely to be in an expensive plan if she works for an employer with a small plan. Nonetheless, not all small plans are expensive. Some employers with small plans report total costs that are competitive with larger plans. In fact, 23% of small plans cost participants less than the median cost for medium plans of 63 basis points.

Exhibit 11 Total Costs Participants Pay to Invest in Defined-Contribution Plans, Small Plans and All Other Plans



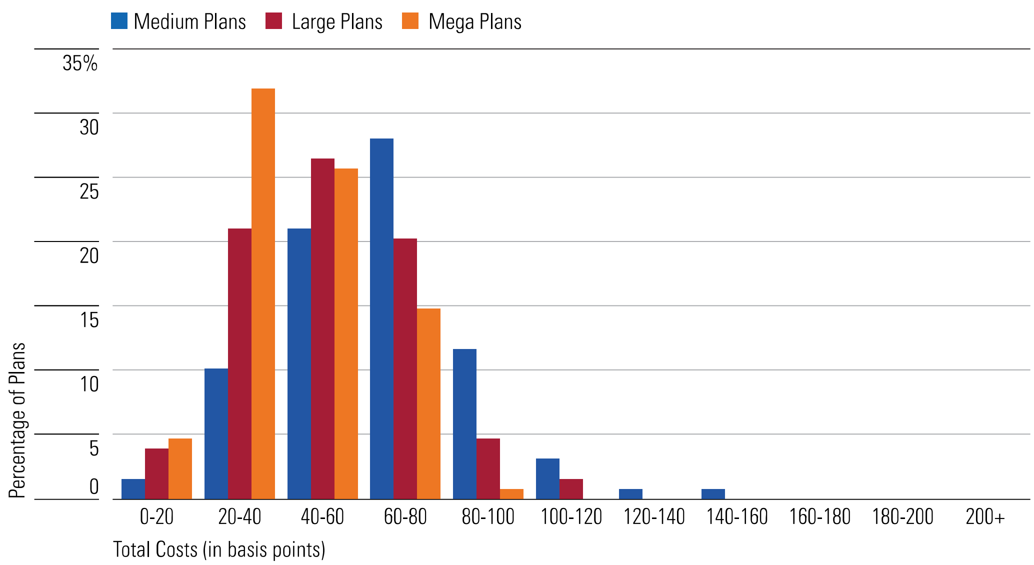
Source: Morningstar investment data matched with Form 5500 data for 2019.

Notes: Small plans have $25 million or less in assets, and all other plans have more than $25 million.

The spread of fees plan participants pay is particularly wide among smaller plans.

In sharp contrast, medium, large, and mega plans feature much smaller ranges of total costs. In other words, a participant would be more likely to pay fairly similar fees to invest in a DC plan no matter which company she worked for among employers offering plans of these sizes, as shown in Exhibit 12. Still, medium plans are less likely to consistently offer a good deal to their participants than larger ones. More than 20% of medium plans have total costs of more than 80 basis points, compared with just 1% of mega plans.

Exhibit 12 Total Costs Participants Pay to Invest in Medium, Large, and Mega Defined-Contribution Plans



Source: Morningstar investment data matched with Form 5500 data for 2019.

Notes: Mega plans have more than $500 million in assets; large plans have $500 million or less in assets, but more than $100 million; and medium plans have $100 million or less in assets, but more than $25 million.

Lower Costs Are Associated With Higher Plan Assets, not the Number of Participants

Plan assets drive plan costs lower, not increased numbers of participants. In fact, as shown in the simple ordinary least squares regression in Exhibit 13, plans with greater number of participants are actually associated with higher costs rather than lower costs, holding assets in the plan constant. (Both plan assets and the number of participants are highly statistically significantly related to plan costs.) The regression shows that, holding the number of participants constant, each additional million in assets results in an average decrease of .0587 basis points in total plan costs, while each additional participant is associated with a .0009-basis-point increase in total plan costs when assets are constant. In short, with more assets, plans can flex their market power, negotiate lower fees, and are more likely to offer institutionally priced investment options to their participants.

Benchmarks that use the number of plan participants are therefore generally inappropriate, at least when estimating the likely plan fees for smaller plans. Simply put, it is much cheaper to administer a $1 million plan with 10 participants than a $1 million plan with 100 participants when charges are normalized to assets. Nonetheless, for larger plans, the greater the number of participants, generally, the greater the number of assets, which does generally reduce the costs. For the smallest plans, this relationship breaks down. For plans under $5 million (a little under 90% of plans, fewer than 10% of participants), there is a weak relationship between participant size and plan assets, with just a 0.21 correlation between them.

Exhibit 13 Ordinary Least Squares Regression of Plan Assets (in millions USD) and Total Number of Participants on Total Costs (in basis points)

	Coefficient	T-Stat
Plan Assets	-0.0587	-15.82
Participants	0.0009	3.52

Source: Morningstar investment data matched with Form 5500 data for 2019.

Notes: We only consider participants with assets in the plan.

Simply put, it is much cheaper to administer a $1 million plan with 10 participants than a $1 million plan with 100 participants when charges are normalized to assets.

Implications

Pooled Employer Plans Could Help Level the Playing Field for Smaller Employers

Workers at employers with smaller plans who are saving just as much as those at employers with larger plans could have around 10% less in assets at retirement due to higher fees.[8]

That small plans struggle to offer low-fee investments compared with larger plans partially motivated Congress to create pooled employer plans, or PEPs, at the end of 2019, with the first plans allowed to start at the beginning of 2021. PEPs are similar to an existing, but more restrictive, structure for retirement plans, multiple-employer plans, or MEPs, and the concept is that PEPs will allow more small employers to pool their assets to hopefully achieve the scale of large employers. As we discussed in detail in a 2020 paper,[9] PEPs have the potential to reduce fees for participants as these new plans grow. However, there will be challenges due to the complex structure of allowing multiple employers to operate in one plan. Few employers have joined PEPs, although they have only been available for a little over a year.

[8] We use the difference between 88 basis points and 41 basis points, assume constant contributions over 35 years, and steady 7% returns for this simple example.
[9] Mitchell, L. & Szapiro, A. 2020. "Paperwork or Panacea." https://www.morningstar.com/lp/paperwork_or_panacea.

SECTION THREE

Although Plans of all Sizes Offer Similar Investment Strategies, Only the Largest Plans Have Adopted the Typically Lowest-Cost Vehicle

Key Findings

Plans of all sizes offer similar investment strategies, but the largest plans have shifted away from mutual funds as their vehicle of choice. The largest plans in the U.S. started to abandon mutual funds 10 years ago and today hold nearly 45% of their assets in collective investment trusts—pooled vehicles that often offer similar strategies to mutual funds but are less regulated and can be much less expensive for participants. Plans of other sizes have not increased their use of collective investment trusts at all. Plans of all sizes continue to invest the majority of their assets in actively managed funds, with more assets in active strategies among smaller plans. In terms of sustainability, we see evidence that retirement plan participants are exposed to higher-than-normal environmental, social, and governance, or ESG, risks, although some plans have investment options that account for these risks. In sum, most plan sponsors invest in similar strategies, but only the largest plan sponsors have adopted the vehicle that typically lets them offer the lowest cost, collective investment trusts.

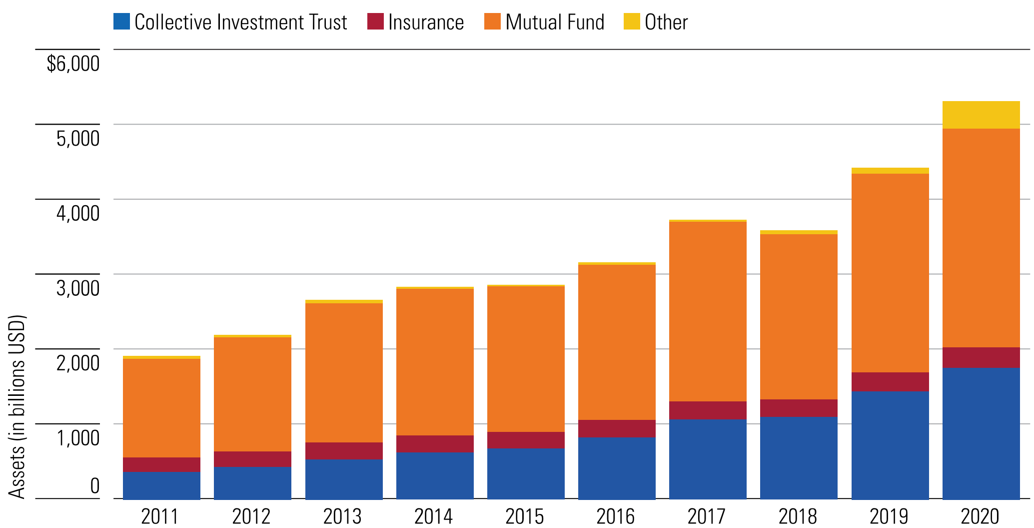
45% of mega plan assets
are in CITs

More than 50% of assets
are in actively managed funds across all plans

The Collective Investment Trust Revolution Has not yet Reached the Yeomen

DC retirement plans increasingly offer collective investments trusts, or CITs, instead of traditional open-end mutual funds to their participants. CITs are pooled-investment vehicles organized as trusts, maintained by a bank or trust company and are managed in accordance with a common investment strategy.[10] The CIT structure is increasingly appealing to plan sponsors. In fact, since 2011, CITs have grown from 19% of assets in DC plans, up to 33% of assets in 2020. Over that time, DC plan CIT assets more than quadrupled from $370 billion to $1.76 trillion in 2020, while DC plan mutual fund assets merely doubled from $1.32 trillion to $2.92 trillion in 2020.

Exhibit 14 Defined-Contribution Plan Assets by Asset Type, 2011 to 2020



Source: Morningstar analysis of Form 5500 data and 2020 projections based on available filings.

Notes: Mega plans have more than $500 million in assets; large plans have $500 million or less in assets, but more than $100 million; medium plans have $100 million or less in assets, but more than $25 million; and small plans have $25 million or less. These numbers only cover plans with at least 100 participants. Insurance assets include investments in pooled separate accounts and those in insurance general accounts. Other assets, which grew significantly in 2020, include master trusts, an organizing structure for plans to pool investments into which we have little insight. If these master trusts continue to grow in importance, we will include more details on them in future reports.

CITs can offer a significant benefit to workers saving for retirement through reduced expenses, as they typically charge participants less than mutual funds. This difference in costs is mostly because CITs are not marketed nor regulated in the way that mutual funds are. When comparing the net expense ratio of CIT tiers and mutual fund share classes of the same strategy, CITs are cheaper 91% of the time, and even considering only the least-expensive CIT tier and mutual fund share class, CITs are cheaper 82% of the time.[11]

[10] The data in this section is from Morningstar, Inc.'s database. Morningstar has an indirect financial interest in the growth of CITs because its subsidiary provides advisory services to CITs.

[11] We use year-end 2019 data to align with the most recent available plan data. For more on CIT analysis, please read our whitepaper "CITs: A Welcome Addition to 403(b) Plans" available at www.morningstar.com/lp/403b-legislation.

The asset-weighted average expense ratios of both active and passive CITs are roughly half those of their mutual fund counterparts. Exhibit 15 demonstrates that across all investment strategies, as of year-end 2019, the average passive CIT costs less than the average passive mutual fund. Similarly, the average active CIT costs less in basis points than the average active mutual fund.

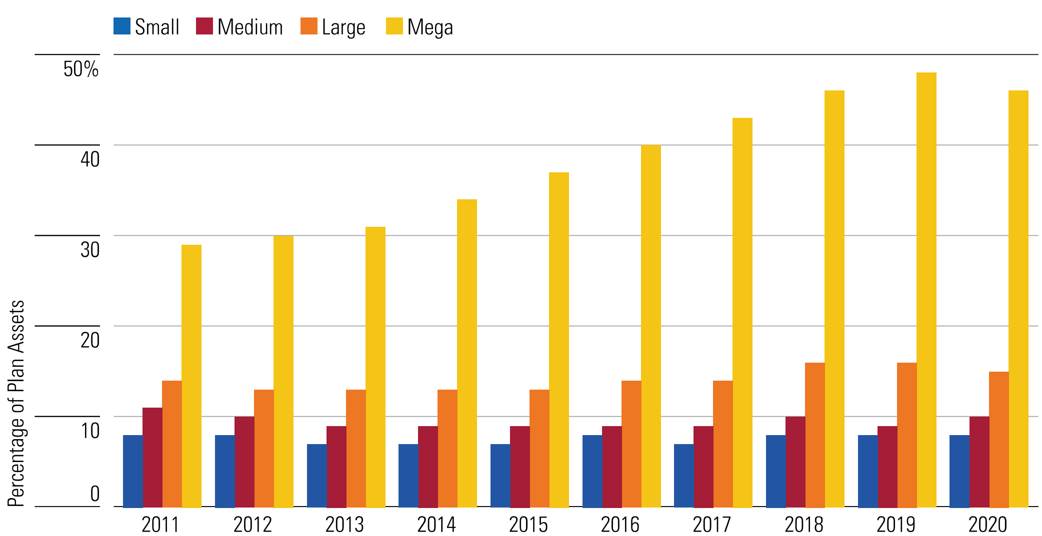
Despite their benefits, plans with fewer than $500 million in assets have not shifted to using CITs in their investment lineups. Indeed, the percentage of assets in CITs among all but the mega plans has been stable over the past decade, as shown in Exhibit 16. While CIT assets have increased in these segments, they have not grown any faster than mutual fund assets. Part of this may be that CIT minimums can be too high for these smaller plans, or that sponsors do not know about the advantages of this structure. The employers sponsoring smaller plans may also feel less comfortable with CITs, or they may work with plan consultants, advisors, or providers that have less incentive to recommend CITs.

Exhibit 15 Average Asset-Weighted Expense Ratio by Investment Vehicle and Management Style (in basis points)

	Active	Passive
Mutual Fund	64.7	7.7
Collective Investment Trust	36.9	4.8

Source: Morningstar investment database, based on assets as of Dec. 31, 2019.

Exhibit 16 Percentage of Defined-Contribution Plan Assets in Collective Investment Trusts by Plan Size, 2011 to 2020



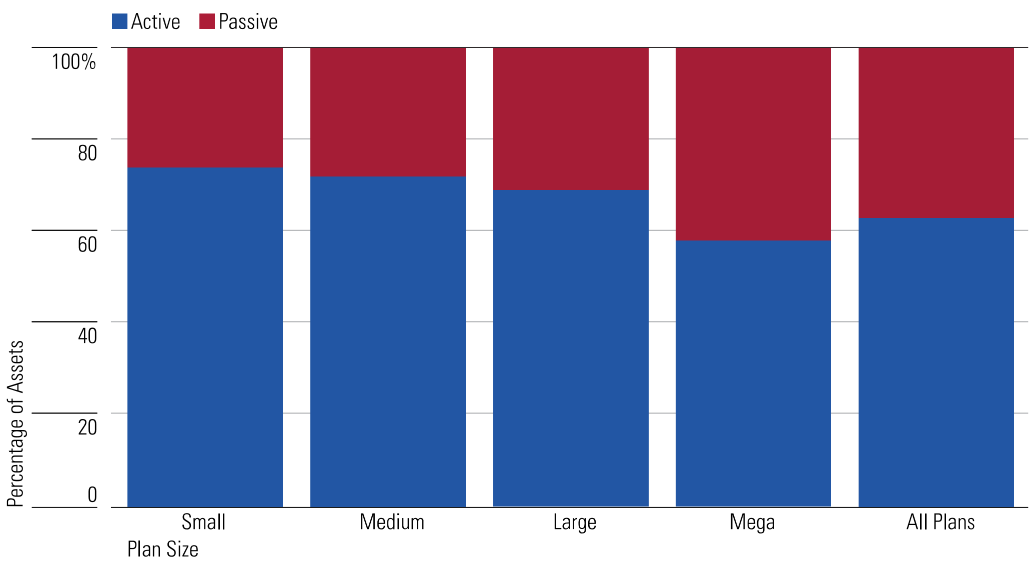
Source: Morningstar analysis of Form 5500 data and 2020 projections based on available filings.

Notes: Mega plans have more than $500 million in assets; large plans have $500 million or less in assets, but more than $100 million; medium plans have $100 million or less in assets, but more than $25 million; and small plans have $25 million or less in assets.

Plans of all Sizes Continue to Rely on Active Funds

We find that plans of all sizes continue to rely on active funds. The larger the plan, the more likely it is to incorporate passive strategies. Still, even among the largest plans, only 42% of assets are in passive vehicles. (We exclude target-date strategies in this analysis, which Morningstar always regards as active because of active decisions about when to rebalance across asset classes.) This finding may seem surprising at first glance, given the well-known shift from active to passive over the past two decades.[12] However, this finding is broadly consistent with the slower movement into passive observed in asset classes other than U.S. equity.

Exhibit 17 Percentage of Defined-Contribution Plan Assets by Management Style and Plan Size



Source: Morningstar investment data matched with Form 5500 data for 2019.

Notes: This analysis excludes assets invested in target-date funds.

The larger the plan, the more likely it is to incorporate passive strategies.

[12] Lauricella, T. & DiBenedetto, G. 2019. "A Look at the Road to Asset Parity Between Passive and Active U.S. Funds." June 12, 2019. Morningstar.com. https://www.morningstar.com/insights/2019/06/12/asset-parity.

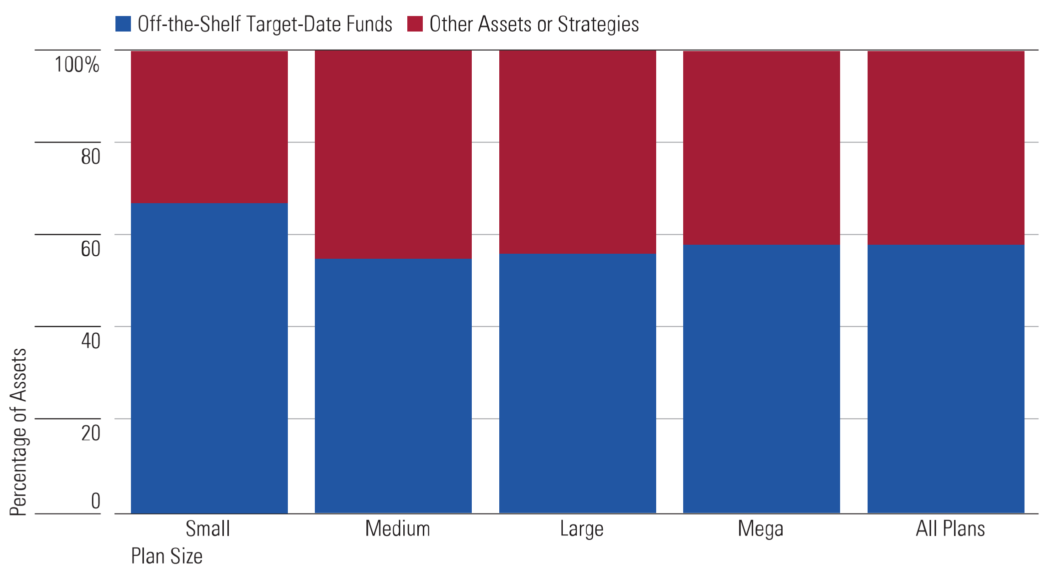
Although Plans of all Sizes Offer Off-the-Shelf Target-Date Funds, Many Participants Still Invest in Other Strategies

Across all plans, we find that 58% of DC plan assets are invested in off-the-shelf target-date funds, or TDFs—strategies that gradually shift asset allocations as a participant gets closer to retirement. Off-the-shelf TDFs are not customized but are offered with the same glide path to multiple plans. As noted in the methodology, this does not include custom glide paths built off of the funds in the plan's lineup, nor does it include custom pooled vehicles such as separately managed accounts.

We do not see big differences between medium, large, and mega plans, but small-plan participants have two thirds of their assets in TDFs. The greater usage of TDFs in small plans is probably due to the fact that these plans are most likely to use an off-the-shelf TDF as their default investment, while some larger plans may use a custom TDF or separately managed accounts. In sum, while target-date strategies are important, they do not monopolize retirement plan assets. Trillions of assets are not in set-it-and-forget-it investments and will not rebalance automatically unless the participant is part of a managed retirement accounts program or part of a custom target-date strategy.

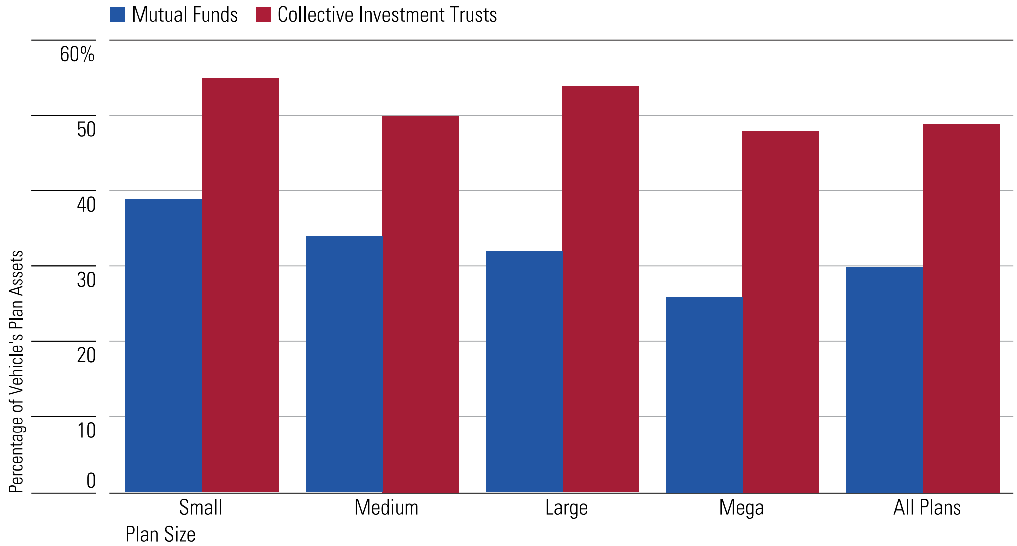
In terms of plan investment vehicles, CITs hold a higher percentage of assets in TDFs than mutual funds. A little under 50% of assets plans held in CITs are in TDFs, but just 30% of mutual fund assets are in TDFs. To the extent they still use mutual funds, mega plans are much less likely to rely on them for a TDF and much more likely to select a CIT, as shown in Exhibit 19. Just 26% of mega-plan mutual fund assets are in a TDF, whereas 48% of these plans' CIT assets are in a TDF. Small plans rely on mutual funds for TDFs, probably because these plans have a harder time attaining the minimum investment size they need to offer a CIT of any kind.

Exhibit 18 Percentage of Defined-Contribution Plan Assets in Off-the-Shelf Target-Date Funds by Plans Size



Source: Morningstar investment data matched with Form 5500 data for 2019.

Exhibit 19 Percentage of Mutual Fund and Collective Investment Trust Defined-Contribution Plan Assets in Target-Date Funds by Plan Size



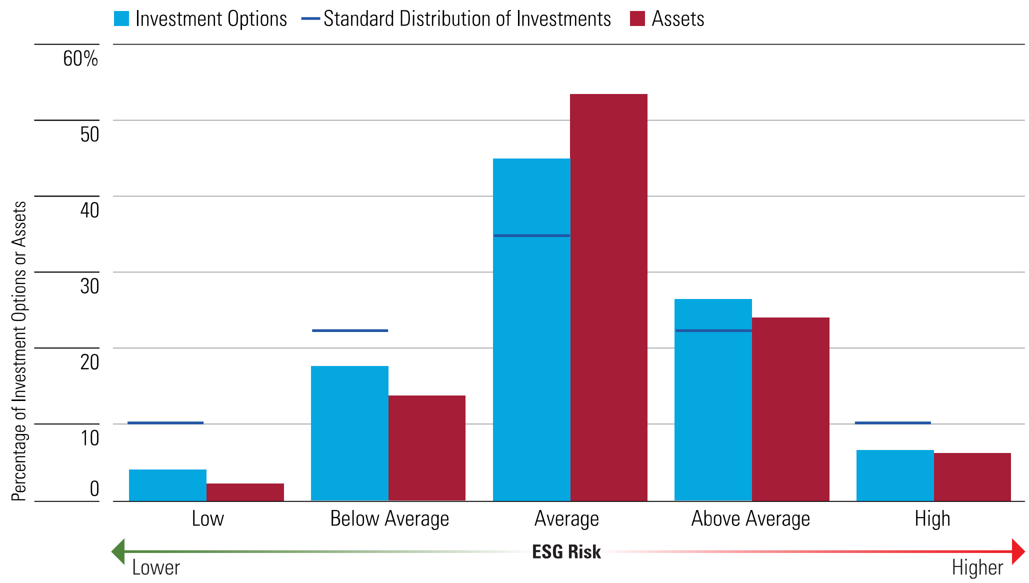
Source: Morningstar investment data matched with Form 5500 data for 2019.

DC Plans Sometimes Offer Sustainable Options, but Plan Investments Take on High Levels of ESG Risk

DC plans are often not helping their participants avoid ESG risks. ESG Risk Rating is a measure developed by Morningstar's Sustainalytics division, which seeks to capture the degree to which companies fail to manage environmental, social, and governance risks, potentially imperiling their long-term economic value.[13] Exhibit 20 shows that U.S. retirement plans offer investment options that are more likely to have higher ESG risk compared with the overall distribution of ESG risk in investments we rate. The exhibit measures the percent of assets that are in the various categories of ESG risk assigned by the Morningstar® Sustainability Rating™ for funds, sometimes called the globe rating.[14] Additionally, on an asset-weighted basis, plan participants generally do not invest in strategies with low levels of ESG risk. For example, just 4% of investment options and 2% of assets are in strategies with the lowest levels of ESG risk, but 10% of all strategies rated by Morningstar are in this category.

[13] Sustainalytics. 2021. "ESG Risk Ratings – Methodology Abstract, Version 2.1." https://connect.sustainalytics.com/esg-risk-ratings-methodology.
[14] Morningstar Research & Sustainalytics Methodology & Portfolio Research. 2021. "Morningstar Sustainability Rating." https://www.morningstar.com/content/dam/marketing/shared/research/methodology/744156_Morningstar_Sustainability_Rating_for_Funds_Methodology.pdf.

Exhibit 20 Percentage of Invesment Options and Assets in Defined-Contribution Plans by ESG Risk



Source: Morningstar investment data matched with Form 5500 data for 2019 and the Morningstar® Sustainability Rating™

As many as 48% of retirement plans with at least 100 participants already offer investment strategies that use ESG analysis to evaluate investments, but this number includes funds with a broad definition of ESG. (In a recent comment letter to DOL, we identified 36% of plans as having ESG investment options and have since expanded our ability to identify investments on the Form 5500.) Morningstar's data team has refined this definition, and as we get 2020 and 2021 DC plan filings, we will be better able to separate out funds that have a clear commitment to ESG analysis and those that do not.

Implications

CITs, ESG, and Passive Have Room for More Growth but Plan Sponsors May Rethink TDFs for Late-Career Employees

Of the investment trends identified in this section, three have clear room for further growth:

There are two main ways CIT growth in retirement plans could continue.

First, Congress may pass legislation to allow CITs in 403(b) plans, which currently cannot offer these types of investments. More importantly, CITs may find new customers among smaller plans and become more popular outside of the mega plans that have mostly adopted these investments to date—if plan sponsors and their advisors get more comfortable with these options and if CITs require lower minimums.

Plan sponsors appear to have shied away from considering ESG analysis or information, in part because of regulatory uncertainty.

In doing so, sponsors have left the U.S. DC system in the aggregate tilted toward investments with more ESG risks. Unless retirement plan sponsors are convinced that ESG risks are overstated, they may wish to re-examine their investment choices using ESG analysis.

Passive strategies are far from dominant among DC plans and could continue to grow.

In part because many TDFs include active components, plan sponsors continue to rely on active strategies, and most assets are still actively managed among DC plans.

While TDFs are one of the great innovations in retirement, it is clear plan participants do not rely on them alone.

Over 40% of assets are still in other investment strategies, which do not automatically readjust asset allocations unless they are part of a managed account or custom glide path. Policymakers need greater visibility into these offerings, and the Department of Labor should collect more data on the use of TDFs, custom glide paths, and managed accounts.[15] This is particularly critical because, as we detail in the next section, varying traditional pension benefits also increase the value of personalized advice compared with one-size-fits-all TDFs for people of similar ages.

[15] Morningstar, Inc. 2021. Comment Letter on Proposed Revision of Annual Information Return/Reports. Nov. 1, 2021. https://www.regulations.gov/comment/EBSA-2021-0006-0025.

SECTION FOUR

DB Plans May Be Disappearing, but They Play an Important Role in Millions of Americans' Retirements

Key Findings

This report has focused on DC plans, but more than 33 million people are or will receive benefits from defined-benefit, or DB, plans as of 2019, which is the most recent year with current data. DB plans accounted for more than 30% of distributions paid to participants in 2019, and they do not appear to have peaked. In fact, 12.8 million people are collecting these traditional pension benefits today, between family beneficiaries and retired participants, and this number will continue to grow. Approximately 8.8 million people who are no longer working are still entitled to future benefits, and 11.7 million people who are still working will eventually receive benefits. Employers need to provide investment options in their DC plans that can also help the millions of people with some traditional pension benefits attain a secure retirement through a mix of their own savings and these traditional pension benefits. Policymakers should not lose focus on the DB system and should help participants transition by encouraging personalized investment recommendations.

33 million people

currently or will receive benefits from DB plans

11.7 million working people

are currently covered by hard-frozen, soft-frozen, or active DB plans

30% of distributions paid

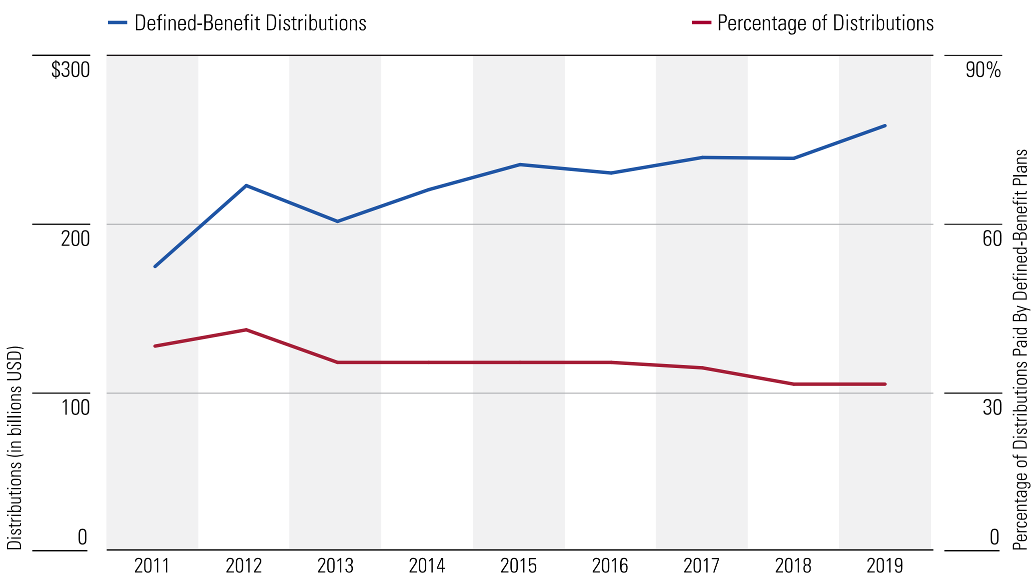
to participants came from DB plans in 2019

DB Plan Distributions Continue to Rise

DB plans contribute meaningfully to retirement security in the U.S. As illustrated in Exhibit 21, although their overall importance is declining, DB plans accounted for more than 30% of distributions paid to participants in 2019, making them an important source of retirement money. Further, DB plan distributions do not appear to have peaked, as total distributions continue to rise as more people reach retirement age and either collect a stream of payments at retirement or take lump sums. As discussed in the methodology, this section does not cover the approximately 14.2 million participants in state and local government DB plans, nor other kinds of non-ERISA DB plans.[16]

DB plan distributions do not appear to have peaked, as total distributions continue to rise as more people reach retirement age and either collect a stream of payments at retirement or take lump sums.

Exhibit 21 Distributions from Defined-Benefit Plans in Dollars and as a Percentage of All Defined-Contribution and Defined-Benefit Plan Distributions, 2011 to 2019



Source: Morningstar analysis of Form 5500 data.

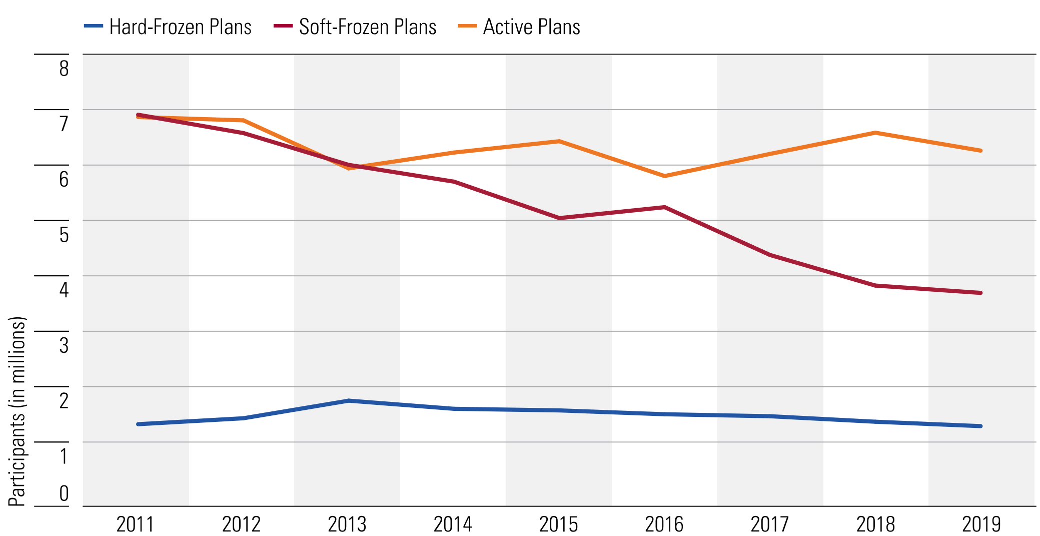
[16] Calculated based on participant rates and employment numbers from: 1) U.S. Bureau of Labor Statistics, U.S. Department of Labor. 2021. "National Compensation Survey: Employee Benefits in the United States." March 2021. https://www.bls.gov/ncs/ebs/benefits/2021/employee-benefits-in-the-united-states-march-2021.pdf. 2) U.S. Bureau of Labor Statistics. 2021. "Graphics for Economic News Releases: Employment by Industry." https://www.bls.gov/charts/employment-situation/employment-levels-by-industry.htm.

As Employers Wind Down Their DB Plans, They Increase the Complexity of Retirement Planning for Their Workers

Over the past few decades, employers have taken two approaches to shifting from DB plans to DC plans, and both create complexity for workers. Many employers soft-froze their plans, meaning new employees could no longer participate. As expected, and illustrated in Exhibit 22, this approach means there is a declining share of the working population participating in these soft-frozen DB plans. Workers covered by soft-frozen plans before the freeze date continue to accrue benefits until they attain retirement, but new workers cannot join the plan. Other employers hard-froze their plans, which means that no participants could accrue more benefits after the freeze date. For example, if a worker's defined benefit would have paid him 1% of his average salary for every year of service, in a hard-frozen plan the worker would only be entitled to the benefit he had already earned when the plan froze.

Planning for retirement is more challenging for workers with hard-frozen DB benefits that are now participating in a DC plan than those with only DC plans or those with only traditional DB plans that continue to accrue benefits. Participants who moved from a hard-frozen DB plan to a DC plan will need personalized plans to figure out how much they need to save, and they may need to save quite a bit of their salary to achieve the retirement they expected before their DB plan froze. Private-sector DB benefits generally are not adjusted for inflation, so workers face much greater inflation risk than they otherwise would, particularly workers with substantial benefits who are still many years from retirement.

Exhibit 22 Working Participants in Defined-Benefit Plans by Plan Status, 2011 to 2019



Source: Morningstar analysis of Form 5500 data.

Turning to employers with soft-frozen plans: Newer workers without DB benefits need to contribute to DC plans at much higher rates than their colleagues who continue to accrue benefits in a soft-frozen plan. Further, their asset allocations should be different from workers who have a fixed stream of income that is projected at retirement because of the risks they face. These DC participants will also likely have less room for error, compared with their colleagues who are guaranteed a stream of income at retirement. These employees without DB coverage need different savings recommendations and different asset allocations than their colleagues with defined benefits.

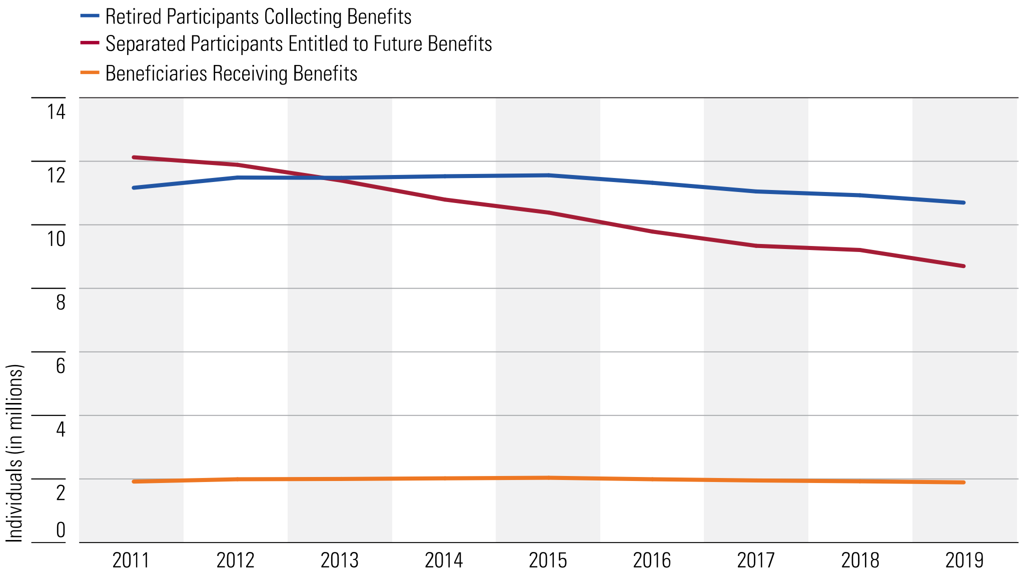
Workers without DB coverage need different savings recommendations and different asset allocations than their colleagues with defined benefits.

For employers trying to help workers with the transition from DB to DC plans, both scenarios mean that they cannot present the same message to all workers, given their varying needs. Furthermore, it may not be appropriate to use the same default investment options in a DC plan, nor perhaps even the same default contribution rate, for all workers at a company given the heterogenous DB plan benefits the workers have accrued or continue to accrue.

Millions of People Will Collect DB Benefits for Decades to Come

The distributions from DB plans highlighted in this section will continue to play an important role in U.S. retirement income for years to come. There are nearly triple the number of people who will be eligible to collect DB benefits in the future as are collecting them right now. As shown in Exhibit 23, almost 12.8 million people—between family beneficiaries and retired participants—are collecting DB benefits today. But this number will continue to grow. Approximately 8.8 million people are no longer active participants but still entitled to future benefits. As shown in Exhibit 22, there are also nearly 11.7 million people still working and who will also eventually receive benefits. Family beneficiaries will continue to collect benefits in some cases well after the plan participant passes away as well. The slow wind up of the DB system is just that—slow.

Exhibit 23 Retired and Separated Defined-Benefit Plan Participants and Beneficiaries, 2011 to 2019



Source: Morningstar analysis of Form 5500 data.

Notes: Beneficiaries are surviving family members entitled to benefits from the participating worker. These numbers are underestimates because they exclude plans with fewer than 100 participants, as they are not required to report these breakdowns. While there are more than 35,000 DB plans with fewer than 100 participants, these plans represent less than 3% of total working participants and would likely not contribute meaningfully to the number of participants and beneficiaries currently collecting benefits or those who are entitled to future benefits.

Implications
Personalization Can Help Workers Manage the Slow Transition From DB to DC Plans

Personalized advice on managing DC investments can be very helpful for the millions of Americans who also have traditional pension benefits, either from their own work record or from a spouse.

In particular, workers at companies who are transitioning from a DB to a DC system could benefit from more-personalized advice because of the increased complexity these transitions create for individual workers and for assessing the needs of a company's workforce as a whole. Millions of families should account for these DB benefits—which are paying more in benefits than they ever have—to ensure their DC plans meet their needs.

Methodology, Data, and Scope

Scope

This report is limited to plans that are covered by Title I of the Employee Retirement Income Security Act of 1974, or ERISA, as these plans file the Form 5500 annually, providing a starting point for analysis. Mostly, we focus on defined-contribution, or DC, plans (often just called 401(k) plans by many Americans), but we also include information on defined-benefit, or DB, plans, which continue to contribute to Americans' retirement security. We refer to DC and DB plans throughout the rest of this report, covering single-employer, multiemployer, and multiple-employer plans, but we do not cover non-ERISA plans such as those offered by the state and local governments.

Plans with fewer than 100 participants in general file much less information than larger plans.[17] To that end, there are analyses we cannot perform on plans with fewer than 100 participants, and we try to note that throughout the report. For nomenclature, we generally refer to these as plans "with fewer than 100 participants" rather than distinguishing them by referring to relative size. We do this because a plan with 150 participants is not large in the same sense as a plan with 150,000 participants. Additionally, we aim to remove any potential confusion as we frequently refer to the size of plans based on their assets.

Projections for 2020 Plan Year

The most complete data set only goes until 2019, and therefore we typically examine 2019 plan-year data. However, for certain DC trends, we have at least 95% of plan filings already in hand for the 2020 plan year, as of Dec. 4, 2021. For these trends, we estimate the plan trends for 2020 based on the number of plans we believe are outstanding. More specifically, we identify the plans with plan years that do not run from Jan. 1 to Dec. 31, which means their filing would be due later than normal, and we check how many of these plans that filed in 2019 have not yet filed in 2020. Our 2020 numbers are then scaled based on the portion of the corresponding 2019 data they represent. We do not do these projections for DB plans because filings from nearly 10% of plans and a quarter of plans with at least 100 participants, which would provide investment information, were still missing at the time we performed the analysis.

[17] The exemption from filing a Form 5500 in favor of a Form 5500-SF or Form 5500-EZ with less information is more nuanced than this alone. While we will refer to these plans as "those with fewer than 100 participants" for simplicity, the exact requirements are as follows: 1) plan covered fewer than 100 participants at the beginning of the plan year OR plan covered fewer than 120 participants at the beginning of the plan year and filed a Form 5500-SF/Form 5500-EZ last year; AND 2) plan did not hold any employer securities; AND 3) throughout the year the plan was 100% invested in easy-to-value assets (for example, mutual fund shares, investment contracts with insurance companies and banks, publicly traded securities, cash); AND 4) plan is eligible for the waiver of the annual examination and report of an independent qualified public accountant; AND 5) the plan is not a multiemployer plan; AND 6) the plan is not required to file a Form M-1. For more information, see the "Who May File Form 5500-SF" in the Form 5500-SF Instructions, available here: https://www.dol.gov/agencies/ebsa/employers-and-advisers/plan-administration-and-compliance/reporting-and-filing/form-5500.

Data Source, Cleaning, and Limitations

We used the data filed by U.S. retirement plans on the Form 5500 and collected by the U.S. Department of Labor Employee Benefits Security Administration, or EBSA. Although EBSA makes data available in both its raw form and in its research file, we use our own cleaning methods for this data, which vary at times from those that EBSA uses.

First, for the DC plans, we include nearly all filers that indicate they are DC plans, including unusual plan designs, such as DB(k) plans, which have elements of both DB and DC plans. We exclude cash balance plans that indicate they have DC features, as we believe cash balance plans are fundamentally DB plans.

Second, we use the file year rather than plan year for this analysis. This captures slightly more temporal diversity of plans, as some plans with unusual plan years (any plan year other than Jan. 1 to Dec. 31) will not be captured for the most recent filings. To provide this timelier information, we adjust numbers for the most recent year to account for the missing filings, as discussed earlier.

Third, we take the additional step of ensuring that the filed data is relevant to the file year (the plan year is indicated as starting sometime between Jan. 1 and Dec. 31 of that year), as some retroactive filings utilize the wrong year's Form 5500. For example, if a plan filed a 2018 Form 5500 but indicated the plan year covered was Mar. 1, 2015, through Feb. 29, 2016, we would include this data in the 2015 file-year analyses.

Methods and Assumptions

Plan Terminations and Creation

Although we examine filings in which plans indicate they are terminating, we believe these numbers alone do not fully capture plan terminations given the prevalence of plans that never file a final Form 5500 but appear to stop operating. Instead, we impute the number of plan terminations by looking at the total number of plans that file anything other than a final Form 5500 and the number of plans that file an initial Form 5500 every year. We report these terminations as happening in the year we believe they would have submitted a final filing.

In general, when determining the number of plans, participants, and assets for a given year, we exclude plans indicating they are terminating within that year. The only exception is when discussing the outflows from DC plans. In this case we include contributions and distributions reported by these plans as they would have been made throughout the year and contribute to the net flow in and out of DC plans.

Outflows From DC Plans

Plans do not report direct rollovers from DC plans to IRAs or other plans, but rather they report most distributions on a single line of the Form 5500 Schedule H. Further, plans with fewer than 100 participants also generally do not report their distributions. To estimate total flows out of plans, we made an adjustment to account for the assets in small plans by assuming the same rate of distributions from these plans. Specifically, we divide the distributions reported by plans filing the Schedule H by the percent of total assets in these plans out of total assets in all DC plans.

These plans also report the contributions made to the plan separate from those made by employers and employees. As we expect the bulk of these contributions come in the form of rollovers from other DC plans, we account for these assets when calculating net flows. Additionally, we adjust these contributions in the same manner we adjust the distributions to account for the assets in small plans.

We believe our estimates are conservative, and any errors understate the massive detectable flow of money out of DC plans. That said, while it is clear from Internal Revenue Service data that most flows out of plans are for rollovers rather than cash-outs, it is not possible to distinguish between cash-outs and rollovers with the Form 5500 data.

When we simulate retention of assets, we assume the assets belong to retired participants to make conservative estimates on how long the plan might retain these assets and the investment returns of the assets. In line with this, we assume the participants are withdrawing 4% of their assets monthly, therefore we utilize the average annual return of funds in the U.S. Active Fund Target-Date Retirement Morningstar Category to assign a return to the assets that are retained. Additionally, we dollar-weight the returns to account for the distributions being withdrawn monthly.

Plan Costs

To estimate plan costs, we rely on a sample of approximately 17,000 plans, for which we can accurately match at least 80% of the investments and 80% of assets from the 2019 plan-year data. We also remove Form 5500 filings with obvious mistakes or inconsistencies. We then calculate the median cost participants pay based on the asset-weighted fees and based on the administrative expenses reported on the Schedule H.

Collective Investment Trusts Data

To provide as comprehensive an analysis as possible, we match both SEC-registered investments, such as mutual funds and exchange-traded funds, as well as to those not registered with the SEC, such as CITs, whenever possible. Our CIT data is collected from CIT providers and covers more than 7,000 tiers of CITs. Some of the tiers reported to our database are "gross of fee" share classes, meaning they do not report net-of-fee performance, as the fee is negotiable and/or the tier is only available to a restricted group of investors. When we compare CIT and mutual fund costs, we exclude these share classes so as not to distort the data.

DB Plan Freeze Status

Over the past few decades, employers have taken two approaches to shifting from DB plans to DC plans. To analyze these different approaches and to capture the unique challenges facing employers and participants in each case, we classify DB plans into three types: hard-frozen, soft-frozen, and active. Hard-frozen plans are where employers made a switch to a DC plan and participants could not accrue DB benefits after the freeze date. This type of plan is indicated on the Form 5500 and Form 5500-SF by a specific code in one field. Soft-frozen plans are where employers maintain a DB plan for participants in the plan before the freeze date, but newer employees are offered a DC plan instead. In this case, employees who participated in the DB plan before the freeze date continue to accrue DB benefits. There is not a unique code or field to indicate this type of plan in the Form 5500; instead we identify these by comparing the number of total participants (active, retired, separated, and receiving benefits) year over year, and those where the number stays the same or declines are considered soft-frozen. All the remaining plans are considered active DC plans, as they have an increasing number of participants and must be adding new employees to the plans.