

# 2022 Custom Target Date Fund (cTDF) Study

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Special thanks go to the many  
DCIIA members who have played  
a role in the creation of this research.

## INTRODUCTION

Since the passage of the Pension Protection Act in 2006 and the creation of qualified default investment alternatives (QDIAs), target date strategies have become an integral part of how Americans save for retirement. The 2022 Callan DC Trends survey reports that 92% of institutional DC plans use target date strategies as their default investment vehicle and that 17% of plans are using custom target date strategies.

As an organization whose founding principle is advocating institutional investment best practices, DCIIA is providing its third iteration of the “Custom Target Date Fund (cTDF) Study”. Our research is intended to increase knowledge about custom target date funds, chronicling not only the number of these funds and the assets in them, but also how they are constructed. We hope you find this paper helpful.

## ABOUT THE STUDY

Over the past 15 years, target date funds have become foundational in the defined contribution (DC) system. This study was launched in 2017, to provide insight into custom target-date fund solutions (cTDFs), including their basic structure, asset allocation, asset class exposure, and returns. 2022 is the third iteration of the study, evaluating data through year-end 2021. The analysis represents cTDF assets of \$516 billion across plans with over \$1.5 trillion in assets collectively. A total of 14 organizations that manage cTDFs participated in the study.

## KEY FINDINGS

- The number of plans/strategies using cTDFs and the assets invested in them continues to increase period-over-period.
- Period-over-period changes in asset allocation are primarily driven by reallocation due to glide path progression rather than tactical or strategic policy changes. However, there are a number of changes within the broad categories of asset classes worth noting, including:
  - Equities:
    - Allocation to foreign equities is moving away from standalone non-U.S. developed and emerging markets equities and is increasingly being consolidated into a single portfolio of global ex-U.S. equities.
    - Similarly, small- and mid-cap allocations are being combined into a single SMID allocation.
  - Fixed Income:
    - Increasing allocations to stable value, and away from money market portfolios.
    - Greater diversification of fixed income allocations to include multi-asset credit, unconstrained bond, and global core (unhedged).
  - Inflation-sensitive assets:
    - 96% of plans now use at least one inflation-sensitive asset class within their portfolios.
    - Increasing use of real estate (public/U.S. REITs) and real estate (private/direct) and decreasing use of global REITs.
  - Diversifiers - Asset classes such as bank loans, private equity and hedge funds, among others, that offer diversification benefits from the broad equity and fixed income markets.
    - Average allocation still small, 1% (median 0%). Continues to slowly increase. Larger plans have a relatively higher allocation across vintages.
    - 15% of plans utilize at least one diversifier, most employ just one product.

## METHODOLOGY

DCIIA's Retirement Research Center directly solicited investment managers, glide path managers, and recordkeepers to participate in the study. For this report, we will refer to these organizations as cTDF "asset allocators." An investment strategy was considered a cTDF if it was tailored to the plan demographics, available exclusively to that plan's participant population, and valued daily. Notably, managed accounts and model portfolios are excluded from this study.

Study participants provided anonymous plan and investment strategy information. Detailed information was received for each plan, and each target-date strategy (or "vintage"). For the purposes of analysis, investments were classified into 45 distinct asset classes. They were also categorized by investment objective (growth versus defensive), and, additionally, consolidated into four broad asset classes (equity, fixed income, inflation-sensitive, and diversifiers). (Note: 2000 to 2010 strategies were omitted, due to a small sample size.)

## SAMPLE SIZE

In 2022, 14 asset allocators provided data for year-end 2021, consistent with the number of allocator responses in the prior period measured, year-end 2018. The total number of plans included in the analysis increased to 100, representing 1,060 unique strategies (**Exhibit 1**).

The plans in the sample span a variety of industries and include both the private and public sectors. On average, plans offer 11 vintages, with 82% of plans offering 10-14 vintages, and 18% offering 6-9 vintages. Over two-thirds (67%) of plans have cTDF strategies that are managed "through" retirement.

The cTDFs analyzed represent \$516 billion in DC assets, with the median plan size of \$4.7 billion. The median plan has 43% of plan assets residing in a cTDF solution. Forty-seven percent of plans also offer a defined benefit plan.

### Exhibit 1 Sample Overview

	2017	2018	2021	% Change from 2018
Asset Allocators	9	14	14	0%
# of Plans	65	91	100	10%
# of Unique Strategies	673	958	1,060	11%

## DETAILED FINDINGS

The following sections provide glide path illustrations for year-end 2021, including investment objective, asset categories, and asset allocation. Where applicable, comparisons are shown for previous years. Note: A 2065 vintage is a new addition to this study, therefore there are no historical numbers for comparison.

### Investment Objective

Custom TDF glide paths are assessed by segmenting asset classes into two main objectives: “growth” and “defensive” assets.

#### GROWTH AND DEFENSIVE ASSET ALLOCATION

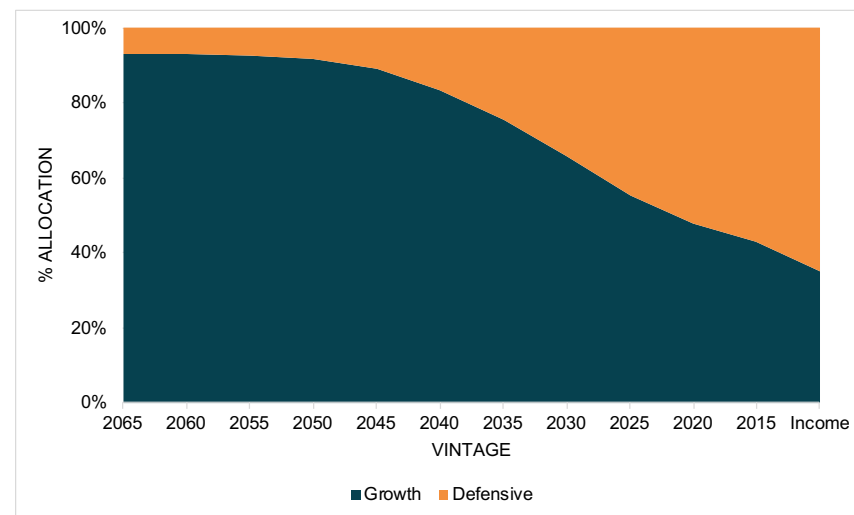
Allocations to a “growth” objective for each plan reflect the cumulative exposures to the following asset classes: all equity asset classes, real estate, commodities, real assets, infrastructure, multi-asset inflation, private real estate, global real estate investment trusts (REITs), long/short hedge funds, risk parity, absolute return, private equity, and preferred.

Allocations to a “defensive” objective for each plan reflect the remaining non-“growth” asset classes, which include: all fixed income asset classes, treasury inflation-protected securities (TIPS), emerging market TIPS, currency, market-neutral hedge funds, bank loans, structured securities, global tactical asset allocation (GTAA), and U.S. balanced.

The average glide path is illustrated across growth and defensive assets, within all plans and vintages (**Exhibit 2**). Further, a historical perspective across growth assets is illustrated in **Exhibit 3**. Generally, these numbers have remained consistent with modest changes from 2018 to 2021, largely representing the natural progression in glide paths as equities are reallocated to fixed income as retirement nears.

## Exhibit 2

### Average Glide Path by Investment Objective



## Exhibit 3

### Year-Over-Year Comparison of Average Allocation to Growth Assets

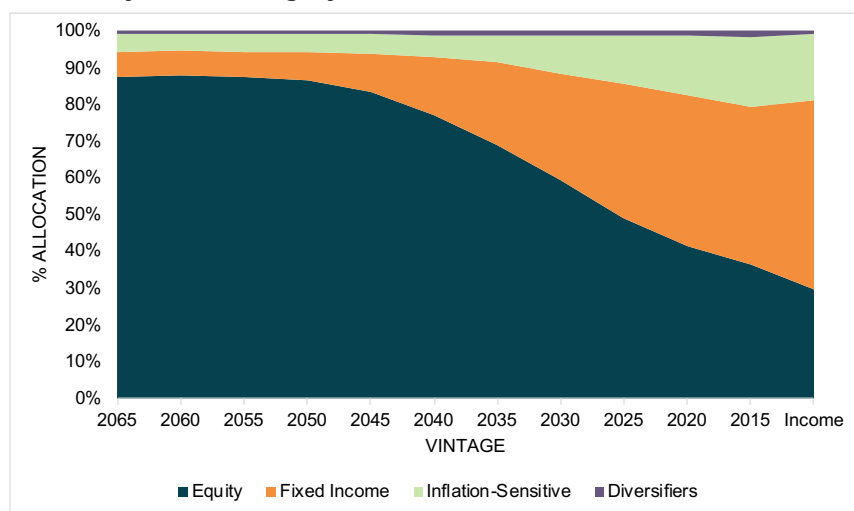
Vintage	Growth 2017	Growth 2018	Growth 2021	Expected Change*	Additional Change
2065	--	--	93.2%	--	--
2060	91.2%	92.7%	93.0%	0.0%	0.3%
2055	90.3%	92.7%	92.8%	-0.4%	0.5%
2050	90.4%	92.1%	91.9%	-0.7%	0.5%
2045	88.5%	90.9%	89.4%	-2.8%	1.3%
2040	86.0%	86.3%	83.3%	-3.8%	0.8%
2035	79.3%	79.9%	75.5%	-5.3%	0.9%
2030	72.0%	71.1%	65.8%	-5.4%	0.1%
2025	64.0%	62.1%	55.4%	-6.4%	-0.3%
2020	54.2%	51.5%	47.9%	-2.7%	-0.9%
2015	49.1%	47.0%	41.8%	-3.4%	-1.9%
Income	33.2%	34.7%	35.1%	0.0%	0.4%

\*Changes due to natural progression in glide path where equities are reallocated to fixed income as retirement nears.

## Asset Class Categories

Forty-five unique asset classes are consolidated into four broad categories: equity, fixed income, inflation-sensitive, and diversifiers. The average allocation glide path among the four asset categories by vintage is illustrated in **Exhibit 4**.

**Exhibit 4**  
**Glide Path by Asset Category**



The majority of asset class exposure (**Exhibit 5**) is allocated to equities and fixed income, with a relatively modest but increasing allocation to inflation-sensitive assets commencing around 20 years prior to retirement. This is commensurate with glide path progression. Diversifiers are a small portion; representing less than a 2% allocation for any vintage.

**Exhibit 5**

**Asset Class Category Allocations**

Vintage	Equity	Fixed Income	Inflation-Sensitive	Diversifiers
2065	87.5%	6.6%	5.1%	0.8%
2060	87.9%	6.6%	4.6%	0.9%
2055	87.3%	6.9%	5.0%	0.9%
2050	86.5%	7.6%	4.9%	1.0%
2045	83.4%	10.2%	5.3%	1.0%
2040	77.2%	15.6%	5.8%	1.4%
2035	68.9%	22.4%	7.4%	1.3%
2030	59.3%	29.2%	10.1%	1.4%
2025	48.9%	36.9%	12.8%	1.4%
2020	41.4%	41.0%	16.4%	1.2%
2015	36.3%	43.2%	18.7%	1.8%
Income	29.8%	51.4%	17.9%	0.9%

## Asset Classes

The sections that follow provide more detail about the 2021 data for asset classes within each of the four broad asset categories. The high (95th percentile) and low (5th percentile) allocations demonstrate the range of investment approaches. The asset classes with the highest prevalence among the sample custom TDF plans are also provided. Prevalence is measured as: the number of plans within the sample with an allocation to the specific asset class, divided by the number of plans in the sample.

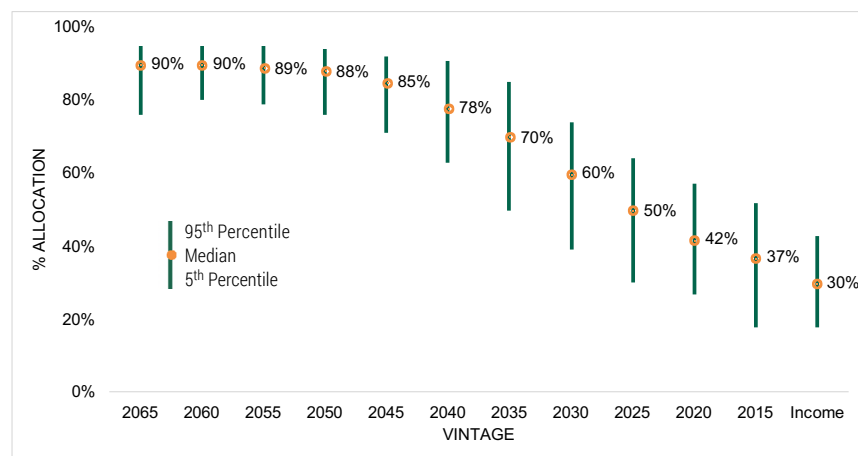
## EQUITY ALLOCATIONS IN CUSTOM TDFS

Equity allocation, unsurprisingly, correlates with the strategy vintage. On the high end of exposure, 95th percentile equity allocations range from 95% for 2055–2065 vintages down to 43% for income strategies. The 5th percentile equity allocations range in a similar style, from 76% for the 2065 strategies to 18% for the 2015 and income strategies. The spread in median exposure to equity fluctuates from 90% for the 2065 strategies to 30% for the income strategies. Differences between the 95th and 5th percentiles for later-dated strategies (beyond 2040) are not as substantial, spanning across 15 to 28 percentage points (**Exhibit 6**).

Changes to the median allocations from 2018 to 2021 are primarily seen with earlier vintages due to the glide path progression. Through the 2015 to 2030 strategies, the median allocation declined by three to six percentage points.

### Exhibit 6

#### Equity Allocation Spread, 95th and 5th Percentiles - 2021



## Underlying Equity Asset Class Usage

Custom TDFs have distinct exposures to equity sub-asset classes. For example, 86% of the plans hold U.S. large-cap equity exposure in (at least one of) their cTDF vintages (**Exhibit 7**). Other commonly used asset classes include: U.S. small- and mid-cap (52%), emerging market (50%), non-U.S. developed (47%), U.S. small-cap (44%), and global ex-U.S. (40%).

Notably, preferences appear to be changing among several sub-asset classes. For example, the use of U.S. small-cap strategies is declining in favor of a combined approach to U.S. small- and mid-cap (aka SMID) approach. Further, global ex-U.S. usage increased substantially by 22% (to 40% of plans), while standalone emerging markets and non-U.S. developed strategies declined.

### Exhibit 7

#### Year-Over-Year Comparison of Equity Asset Class Prevalence

Asset Class	2017	2018	2021
U.S. Large-Cap	89%	91%	86%
U.S. Small- & Mid-Cap	29%	29%	52%
Emerging Market	66%	59%	50%
Non-U.S. Developed	69%	62%	47%
U.S. Small-Cap	49%	58%	44%
Global Ex-U.S.	22%	18%	40%
Global	11%	21%	21%
U.S. Mid-Cap	19%	21%	20%
U.S. All-Cap	10%	11%	13%
Global All-Cap Ex-U.S.	7%	15%	12%
Non-U.S. Small-Cap	7%	7%	4%
Defensive/Low Volatility	3%	2%	4%

## EQUITY

Twelve asset classes compose DCIIA's equity category:

- |                          |                                 |                              |                                   |
|--------------------------|---------------------------------|------------------------------|-----------------------------------|
| 1. U.S. Large-Cap Equity | 4. U.S. Small- & Mid-Cap Equity | 7. Non-U.S. Small-Cap Equity | 10. Global All-Cap Ex-U.S. Equity |
| 2. U.S. Mid-Cap Equity   | 5. U.S. All-Cap Equity          | 8. Global Equity             | 11. Emerging Market Equity        |
| 3. U.S. Small-Cap Equity | 6. Non-U.S. Developed Equity    | 9. Global Ex-U.S. Equity     | 12. Defensive/Low Volatility      |

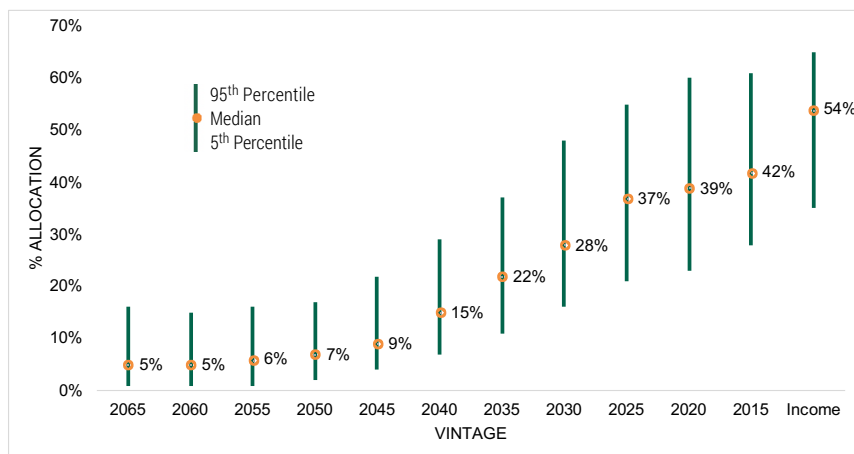
## FIXED INCOME ALLOCATIONS IN CUSTOM TDFS

Fixed income allocations correlate to fund vintages and have an inverse relationship to equities. The median exposure to fixed income for income strategies was 54%, declining to 5% for the 2060 and 2065 strategies. Differences between the 95th and 5th percentiles varied less for later-dated vintages (15 percentage points) and peaked at 35 percentage points for the income vintage (**Exhibit 8**).

Changes to the median allocations from 2018 to 2021 were mainly within vintages closer to retirement, reflecting a corresponding increase in fixed income exposure of about two to five percentage points, primarily driven by glide path progression.

### Exhibit 8

#### Fixed Income Allocation Spread, 95th and 5th Percentiles - 2021



## Underlying Fixed Income Asset Class Usage

Looking at the 12 underlying fixed income sub-asset classes, the most prevalent classes remain core (U.S.) (96%), short duration (40%), high yield (39%), and stable value (32%). Notably, usage of cash declined, while stable value grew by 10 percentage points. Additionally, other relatively smaller asset classes increased, including multi-asset credit, unconstrained bond, and global core (unhedged) (**Exhibit 9**).

Additional analysis demonstrates that across sub-asset classes that are less prevalent (15% or less prevalence, individually), 26% of plans use at least one of these less common asset classes, while 11% allocate to two or more.

### Exhibit 9

#### Year-Over-Year Comparison of Fixed Income Asset Class Prevalence

Asset Class	2017	2018	2021
Core (U.S.)	94%	97%	96%
Short Duration	49%	42%	40%
High-Yield/High-Income	35%	40%	39%
Stable Value/Guaranteed	20%	22%	32%
Cash	29%	26%	20%
Emerging Market	20%	15%	15%
Multi-Asset Credit	1%	1%	9%
Unconstrained	5%	4%	7%
Long Duration	5%	7%	7%
Global Core (Unhedged)	8%	3%	7%
Global Core (Hedged)	4%	3%	4%
Core (Non-U.S.)	7%	5%	1%

## FIXED INCOME

Twelve asset classes compose DCIIA's fixed income category:

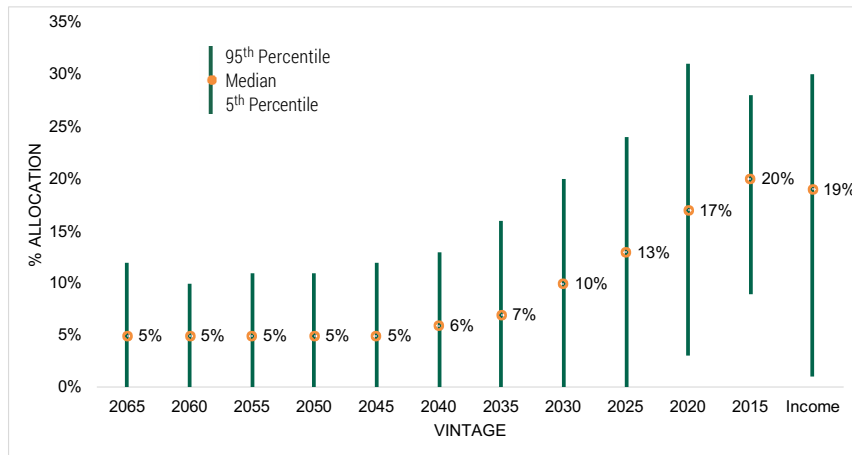
- |                         |                                |                         |                             |
|-------------------------|--------------------------------|-------------------------|-----------------------------|
| 1. Unconstrained Bond   | 4. Global Core (Unhedged) Bond | 7. Short Duration Bond  | 10. Cash                    |
| 2. Core (U.S.) Bond     | 5. Global Core (Hedged) Bond   | 8. Long Duration Bond   | 11. Stable Value/Guaranteed |
| 3. Core (Non-U.S.) Bond | 6. High-Yield/High-Income Bond | 9. Emerging Market Bond | 12. Multi-Asset Credit      |

## INFLATION-SENSITIVE ALLOCATIONS IN CUSTOM TDFS

Overall use of inflation-sensitive assets is modest for vintages more than 10 years from the stated target date. Beginning in 2030, the median allocation increases to 10% and rises further to 19% for the income portfolios. **(Exhibit 10)**

### Exhibit 10

#### Inflation-Sensitive Allocation Spread, 95th and 5th Percentiles - 2021



## Underlying Inflation-Sensitive Asset Class Usage

TIPS bond is the most prevalent inflation-sensitive asset class used, now at 87% of plans up from 81% in 2018. The following top four sub-asset classes include: real estate public/REITs (34%), global REITs (23%), real estate private/direct (23%), and commodities (22%). Changes to real estate sub-asset classes are noted, with an increase in real estate (public/U.S. REITs) and real estate (private/direct) usage, corresponding with a decrease to global REITs.

### (Exhibit 11)

Notably, 96% of plans currently utilize at least one inflation-sensitive asset class. Among those, 26% employ one option, 31% utilize two, and 39% access three or more sub-asset classes.

### Exhibit 11

#### Year-Over-Year Comparison of Inflation-Sensitive Asset Class Prevalence

Asset Class	2017	2018	2021
TIPS Bond	72%	81%	87%
Real Estate (Public/U.S. REITs)	48%	24%	34%
Global REITs	11%	37%	23%
Real Estate (Private/Direct)	3%	11%	23%
Commodities	38%	38%	22%
Real Assets	23%	21%	16%
Infrastructure	7%	7%	9%
Multi-Asset Inflation	3%	1%	3%

*NOTE: Emerging Market TIPS and Currency Hedge held 0% of assets in 2021.*

## INFLATION-SENSITIVE

Ten asset classes compose DCIIA's inflation-sensitive category:

- |                                    |                   |                         |                           |
|------------------------------------|-------------------|-------------------------|---------------------------|
| 1. Real Estate (Public/U.S. REITs) | 4. Commodities    | 7. TIPS Bond            | 10. Multi-Asset Inflation |
| 2. Real Estate (Private/Direct)    | 5. Real Assets    | 8. Emerging Market TIPS |                           |
| 3. Global REITs                    | 6. Infrastructure | 9. Currency Hedge       |                           |

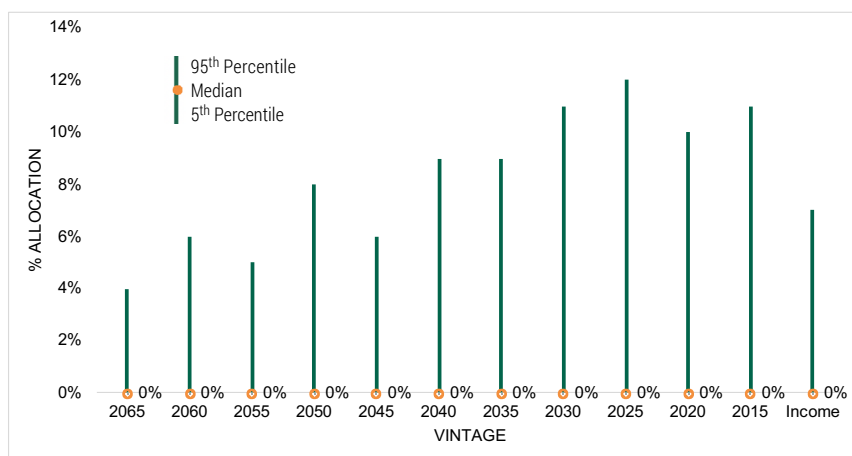
## DIVERSIFIER ALLOCATIONS IN CUSTOM TDFS

Use of diversifiers is nascent. Multiple vintages in the dataset have no exposure. Use among the outliers (i.e., 95th percentile) is also modest, as allocations range from 4% to 12% (**Exhibit 12**). While the median exposure to diversifiers is zero, the average allocation is 1% for virtually all vintages, though the allocation is increasing, albeit slowly.

Notably, larger plans (as measured by plan size) generally have higher allocations to diversifiers across all vintages, on average 1.2 to 1.9 percentage points higher.

### Exhibit 12

#### Diversifier Allocation Spread, 95th and 5th Percentiles - 2021



## Underlying Diversifier Asset Class Usage

The most commonly used diversifiers include GTAA (4%) and bank loans (3%), followed by hedge funds, private equity, and risk parity (all at 2%) (Exhibit 13).

Throughout all plans just 15% use a diversifier within their cTDFs. The vast majority allocate to just one diversifier.

### Exhibit 13

#### Year-Over-Year Comparison of Diversifier Asset Class Prevalence

Asset Class	2017	2018	2021
GTAA	5%	2%	4%
Bank Loans	6%	3%	3%
Hedge Funds	6%	2%	2%
Private Equity	1%	1%	2%
Risk Parity	1%	1%	2%
Market Neutral Hedge Funds	0%	0%	1%
Absolute Returns	1%	0%	1%

*NOTE: U.S. Balanced, Structured Securities, Long-Short Hedge Funds and Preferred Securities held no assets in 2021.*

## DIVERSIFIERS

Eleven asset classes compose DCIIA's diversifiers category:

- |                           |  |                          |                   |
|---------------------------|--|--------------------------|-------------------|
| 1. Private Equity         | 4. Market-Neutral Hedge Funds              | 7. Absolute Returns      | 10. Bank Loans    |
| 2. Hedge Funds            | 5. Risk Parity                             | 8. Structured Securities | 11. U.S. Balanced |
| 3. Long/Short Hedge Funds | 6. Global Tactical Asset Allocation (GTAA) | 9. Preferred Securities  |                   |

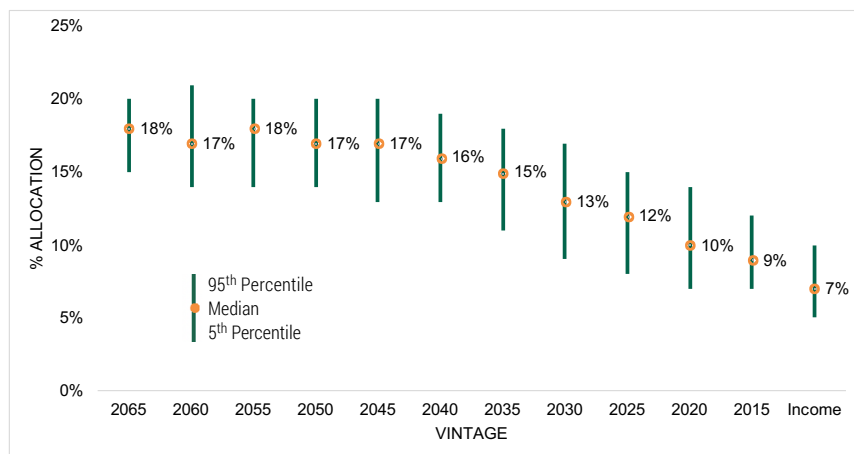


## RATES OF RETURN

The range of median returns are shown for 2021 in **Exhibit 14**. The differences between the 5th and 95th percentiles range between 4% to 8%.

### Exhibit 14

#### Range of Median Returns, 95th and 5th Percentiles - 2021



*All returns shown net of fees.*

## GOING FORWARD

DCIIA is pleased to continue to provide this important information. We look forward to the study's continuing evolution over time, which will include expanding coverage of the cTDF universe as well as the incorporation of other data elements.

For further inquiries on the full coverage of asset classes, please contact DCIIA at [info@dciiia.org](mailto:info@dciiia.org).

## APPENDIX

## Allocation by Investment Strategy – Plans in 2021 and 2018

Allocation of year-end 2021 data, looking only at plans that were in both the 2018 and 2021 data sets (**Exhibit 16**). 45 plans from seven asset allocators were in both data sets.

**Exhibit 16****Year-Over-Year Comparison of Allocation by Investment Strategy**

Vintage	2021 Growth	% Change from 2018	2021 Defensive	% Change from 2018
2060	92.6%	0.1%	7.4%	-0.1%
2055	92.8%	0.2%	7.2%	-0.2%
2050	91.7%	-0.5%	8.3%	0.5%
2045	89.0%	-2.5%	11.0%	2.5%
2040	83.3%	-3.5%	16.7%	3.5%
2035	76.1%	-4.6%	23.9%	4.6%
2030	67.3%	-5.4%	32.7%	5.4%
2025	58.2%	-6.4%	41.9%	6.5%
2020	50.7%	-4.9%	49.3%	4.9%
2015	44.2%	-4.6%	55.8%	4.6%
Income	36.2%	0.4%	63.8%	-0.4%

## Allocation by Asset Category – Plans in 2021 and 2018

Looking only at the 45 plans that were represented in both the 2018 and 2021 data sets, DCIIA observed that the allocations to equity were down for 2015–2045, yet up for 2050–2060. Allocations to fixed income were up in every vintage except 2060 (which was -0.1%). Allocations to inflation-sensitive were down in all vintages except 2030 (which was up 1.1%) and 2020 (which was up 0.5%). Allocations to diversifiers were up in all vintages. Income funds showed an increase in equity allocation of 0.9%. (**Exhibit 17**)

**Exhibit 17****Year-Over-Year Comparison of Allocation by Asset Category**

Vintage	2021 Equity	% Change from 2018	2021 Fixed Income	% Change from 2018	2021 Inflation-Sensitive	% Change from 2018	2021 Diversifiers	% Change from 2018
2060	85.8%	1.3%	7.0%	-0.1%	5.5%	-1.3%	1.7%	0.2%
2055	85.4%	1.4%	7.1%	0.0%	6.1%	-1.2%	1.4%	0.0%
2050	85.2%	0.4%	7.8%	0.4%	5.5%	-1.0%	1.6%	0.3%
2045	81.1%	-2.0%	10.8%	2.6%	6.5%	-0.7%	1.6%	0.2%
2040	75.6%	-3.1%	15.6%	3.0%	6.6%	-0.5%	2.2%	0.6%
2035	66.8%	-4.0%	21.8%	3.9%	9.2%	-0.2%	2.2%	0.3%
2030	58.6%	-4.7%	27.0%	2.9%	12.3%	1.1%	2.1%	0.7%
2025	48.6%	-5.3%	33.9%	5.1%	15.3%	-0.4%	2.3%	0.8%
2020	42.0%	-4.0%	37.4%	2.9%	19.0%	0.5%	1.7%	0.7%
2015	36.0%	-3.7%	42.9%	4.6%	19.1%	-1.5%	2.0%	0.6%
Income	29.5%	0.9%	50.7%	-0.4%	19.5%	-0.6%	0.3%	0.1%

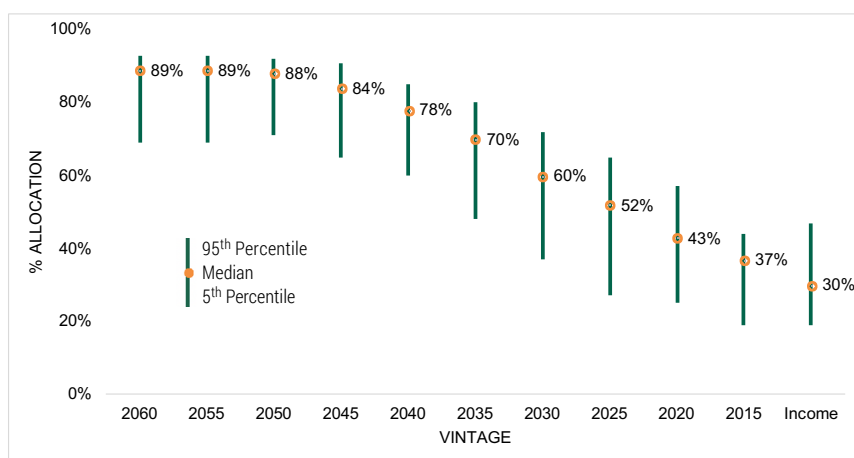
## APPENDIX

## Allocation by Asset Class – Plans in 2021 and 2018

Equity allocation spread of year-end 2021 data, looking only at plans that were in both the 2018 and 2021 data sets. **(Exhibit 18)**

## Exhibit 18

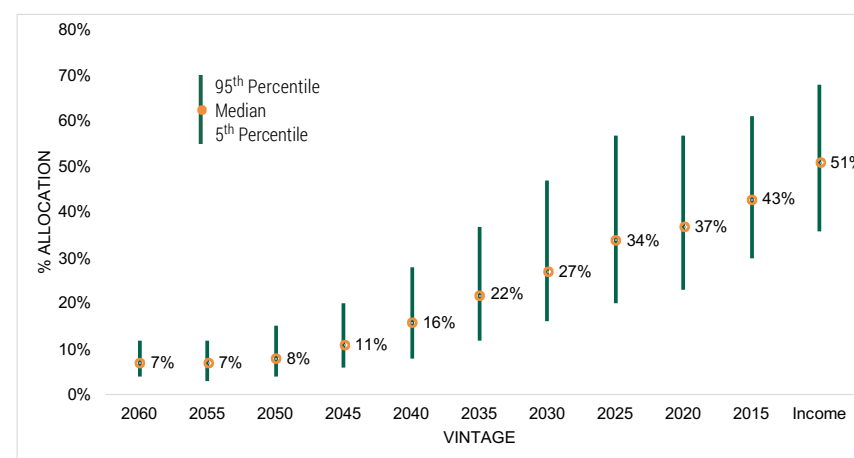
## Equity Allocation Spread, 95th and 5th Percentiles



Fixed income allocation spread of year-end 2021 data, looking only at plans that were in both the 2018 and 2021 data sets. **(Exhibit 19)**

## Exhibit 19

## Fixed Income Allocation Spread, 95th and 5th Percentiles



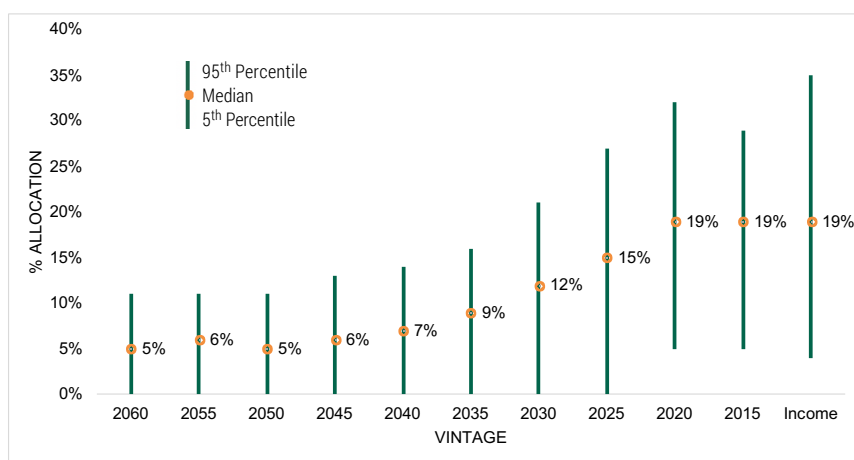
## APPENDIX

## Allocation by Asset Class – Plans in 2021 and 2018

Inflation-sensitive allocation spread of year-end 2021 data, looking only at plans that were in both the 2018 and 2021 data sets. (Exhibit 20)

## Exhibit 20

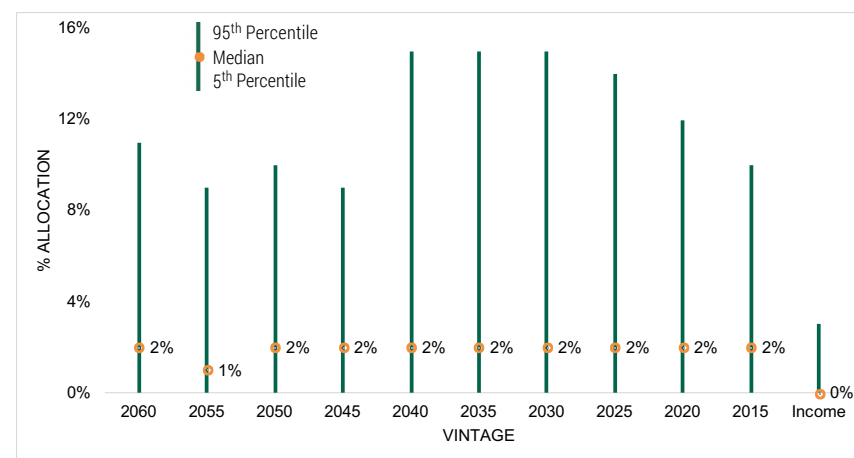
## Inflation-Sensitive Allocation Spread, 95th and 5th Percentiles



Diversifier allocation spread of year-end 2021 data, looking only at plans that were in both the 2018 and 2021 data sets. (Exhibit 21)

## Exhibit 21

## Diversifier Allocation Spread, 95th and 5th Percentiles



## ABOUT THE DCIIA RRC

DCIIA's Retirement Research Center conducts rigorous, industry-informed research that is grounded in a practical approach focused on actionable insights. We adhere to a disciplined research methodology, governance and validation process. Our goal is to serve the industry as a reliable, unbiased, and authoritative research resource supporting improved retirement security—be it through plan design, institutional practices, investment solutions, or behavioral interventions.

For more information, visit: [www.dciia.org/rrc](http://www.dciia.org/rrc).

## ABOUT DCIIA

The Defined Contribution Institutional Investment Association (DCIIA) is a non-profit association dedicated to enhancing the retirement security of America's workers. To do this, DCIIA fosters a dialogue among the leaders of the defined contribution community who are passionate about improving defined contribution outcomes. DCIIA's diverse group of members include investment managers, consultants and advisors, law firms, recordkeepers, insurance companies, plan sponsors and other thought leaders who are collectively committed to the best interests of plan participants.

For more information, visit: [www.dciia.org](http://www.dciia.org).

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