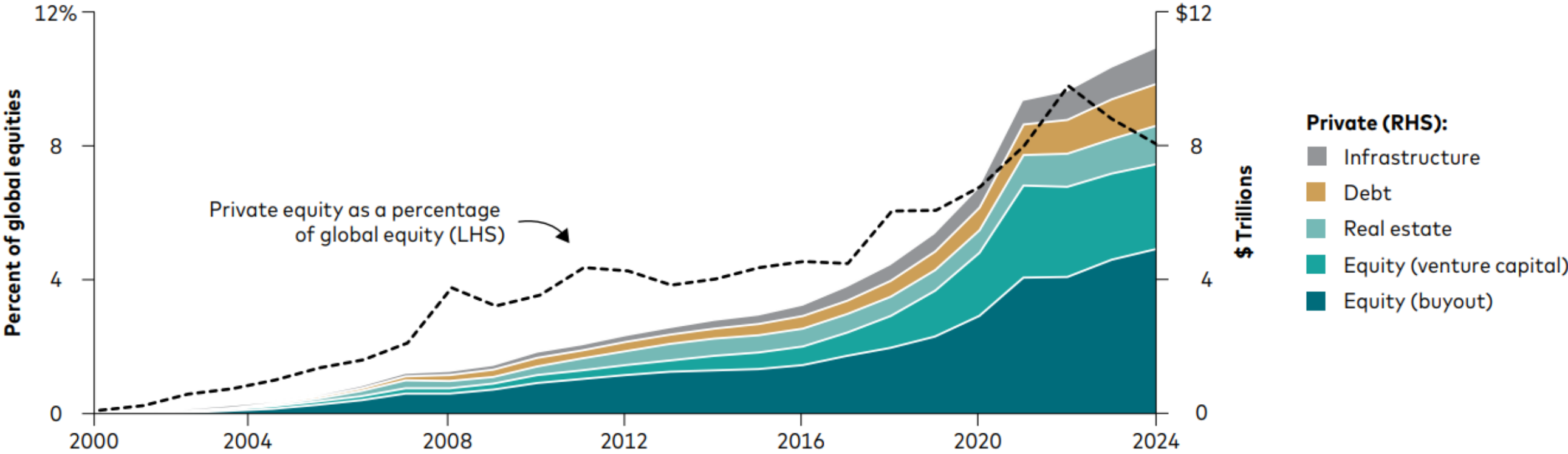


Private Assets in Defined Contribution Plans: Benefits, Risks, and Implications

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Private assets are a growing segment of the investment universe



Notes: The sizes of the private asset categories are based on reported year-end unrealized values from funds and co-investments. Fund-of-funds data is excluded to avoid double-counting. The size of the private equity market is proxied by the total market capitalization of the MSCI ACQI Investable Market Index.

Sources: Vanguard calculations, based on data from Preqin Ltd. and FactSet.

Private assets are available to the wealthy

The Securities and Exchange Commission restricts the sale of private investments in most fund types to “accredited investors” with \$1 million in household assets (excluding home equity) and annual incomes over \$200,000 for individuals and \$300,000 for couples.

—U.S. SECURITIES AND EXCHANGE COMMISSION, 2025.

Executive Order: Democratizing Access to Alternative Assets for 401(k) investors

August, 2025

“Every American preparing for retirement should have access to funds that include investments in **alternative** assets when the relevant plan fiduciary determines that such access provides an appropriate opportunity for plan participants and beneficiaries to enhance the net risk-adjusted returns on their retirement assets.”

—THE WHITE HOUSE, 2025.

Employer considerations

- 1 Is there an investment case?
- 2 Are my employees a good fit?
- 3 How should I integrate privates?

Investment case: private assets can boost retirement savings

Private assets with highly skilled managers may boost expected retirement wealth

Participant outcomes	Passive TDF benchmark (100% passive)	Active TDF benchmark (100% active)	Low private (10%)	High private (20%)
Projected annual return net of fees	6.9%	7.1%	7.4% (0.3 ppt–0.5 ppt increase)	7.8% (0.7 ppt–0.9 ppt increase)
Fees* (bps)	6–16	34–60	20–50	30–75
Manager performance (percentile)	N/A	80th	67th	67th
401(k) balance by age 65	\$1,487,000	\$1,541,000	\$1,649,000 (7%–11% increase)	\$1,812,000 (18%–22% increase)
Income in retirement**	\$122,000	\$125,000	\$131,000 (5%–7% increase)	\$140,000 (13%–15% increase)

* Fee figures are based on interquartile ranges for institutional share classes charging fees at the 25th and 75th percentiles in the Morningstar universe of passive and active TDFs, as of December 31, 2024.

**Retirement figures are calculated at age 66, including Social Security of \$43,333 per year.

Notes: Returns assume active manager excess returns consistent with the manager performance percentile listed. Projected annual return is the median from the distribution of 10,000 simulations. 401(k) balances are estimated based on a worker starting to save at age 25 with \$52,000 in earnings, which grow based on the average wage index published by the Social Security Administration, and retiring at age 65 (Vanguard, 2025). We assume a saving rate of 8.8% at age 25 that increases to 12% by age 65. Fees for institutional share class TDFs are shown as a range.

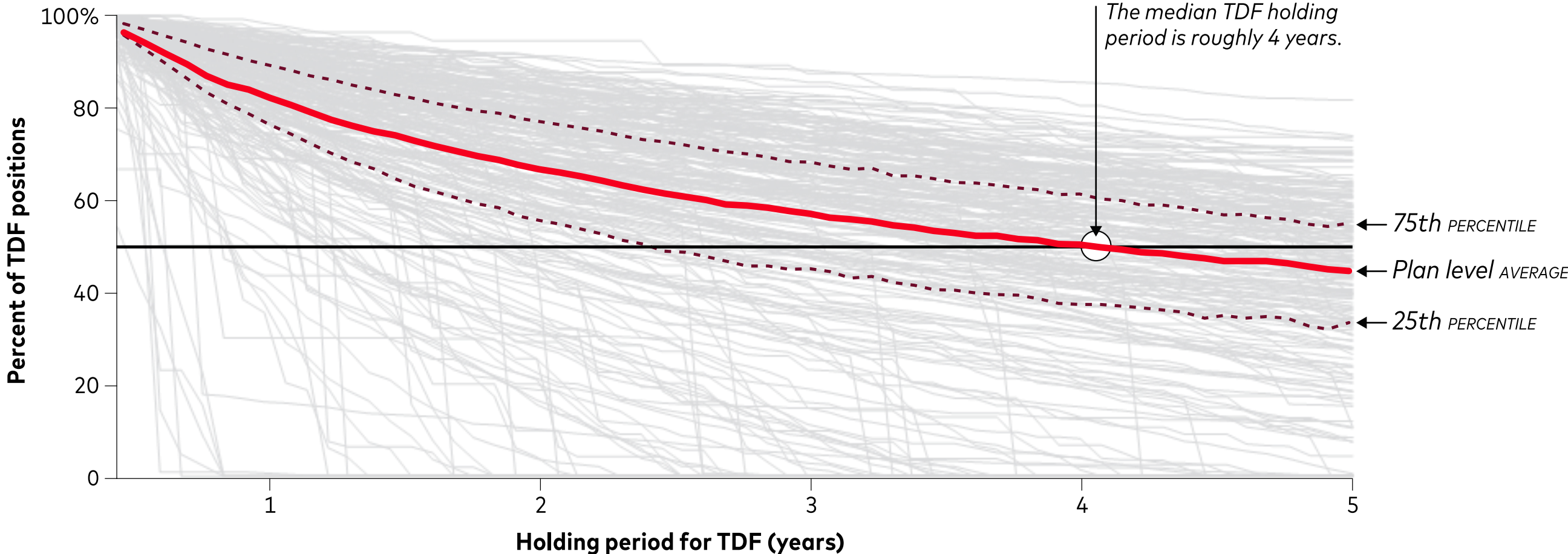
Source: Vanguard.

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People save for retirement in short segments

The typical worker holds their Target Date Fund position for just 4 years.



Notes: We restrict our sample to plans with at least 100 participants over a 10-year period between April 2015 and April 2025. We keep all TDF holdings initiated in or before April 2020. Each lighter, gray line represents the Kaplan-Meier estimator of the survivor probability of a TDF position in a plan over time. The solid green line represents the average survivor probability across plans, weighted by total TDF assets in a plan. Source: Vanguard calculations, based on recordkeeping data.

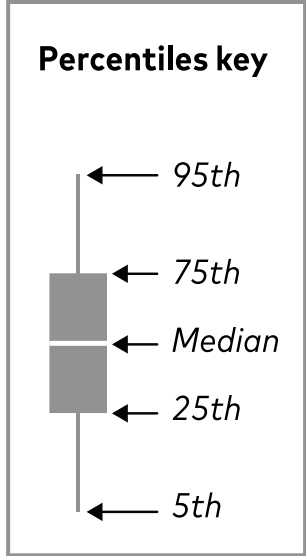
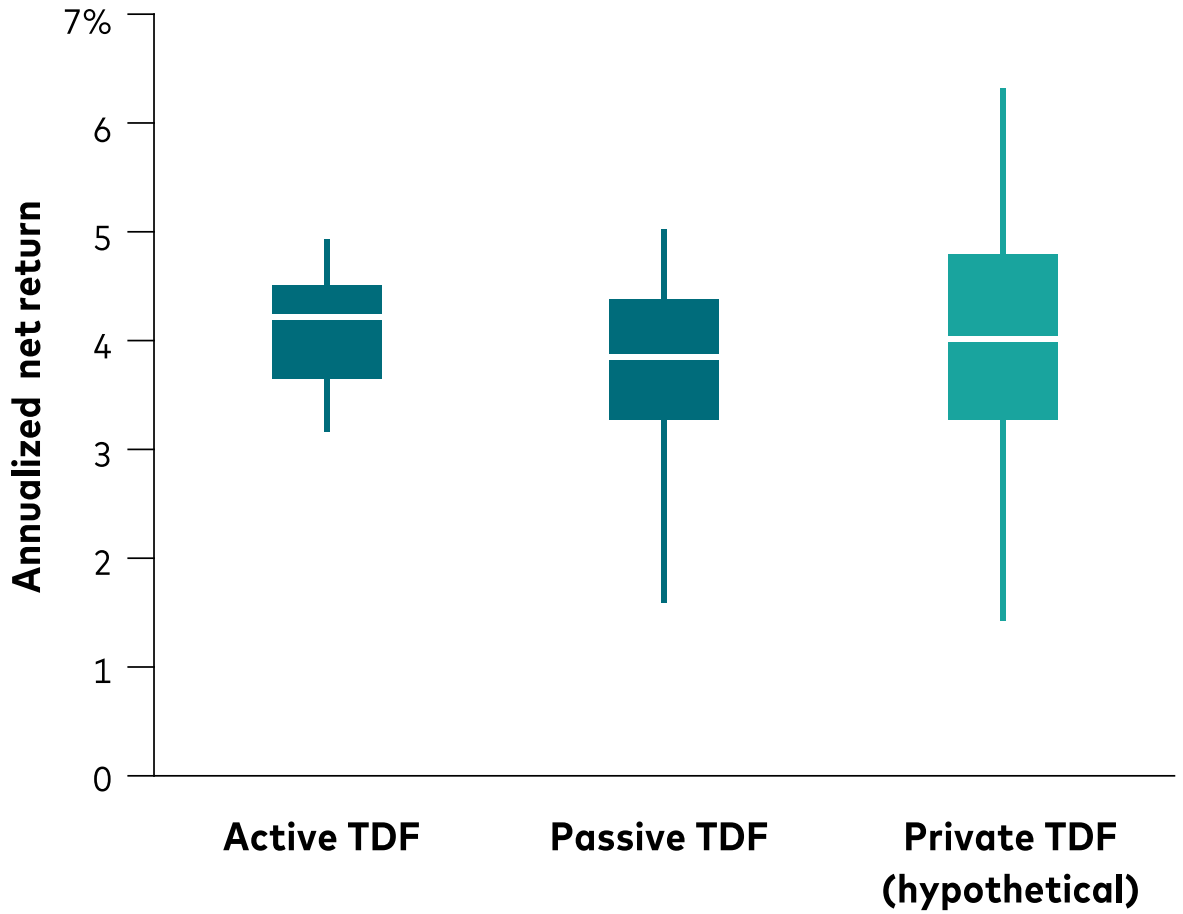
Plan populations with longer holding periods earn more, save more, and have less turnover

Plan attributes		Median TDF holding period of participants in the plan		Statistical significance
		< 5 years	≥ 5 years	p-value (difference)
Percent of plans		67%	33%	—
Demographics	Median income	~\$64,000	~\$89,000	<0.001***
	Median balance	~\$29,000	~\$53,000	<0.001***
	Median age	46	45	0.027*
	Tenure before termination	4.7 years	6.3 years	<0.001***
Participant behaviors	Median contribution rate (actively contributing participants)	5.9%	7.2%	<0.001***
	Percent of workers who leave assets in the plan two years after termination	42%	49%	<0.001***
	Hardship withdrawal rate (annual)	0.7%	0.8%	0.103
	Share of participants who trade (annual)	9%	10%	0.47
Plan design	Share of plans with immediate eligibility	45%	48%	0.25
	Share of plans with automatic enrollment	78%	75%	0.25

† p < 0.1
 * p < 0.05
 ** p < 0.01
 *** p < 0.001

Notes: We restrict our sample to plans with at least 100 participants over a 10-year period between April 2015 and April 2025. The statistical significance column presents the results from pairwise tests. A logit regression of the holding period indicator on plan attributes yields similar directional results.
 Source: Vanguard calculations, based on recordkeeping data.

A hypothetical TDF with privates exhibits wider return dispersion than traditional TDFs



Notes: Dispersion of passive and active TDF annualized net returns reflects dispersion across TDFs over the last 10 years of performance using the retirement income vintage of the TDF series from Morningstar, as of December 31, 2024. The dispersion of private TDFs is a weighted average of 80% passive-index-based implementation combined with the return dispersions from MSCI data, assuming a 10% allocation to private equity and 10% allocation to private debt. The dispersion of private TDFs is based on Vanguard calculations using private asset dispersions for private equity and private debt.
Sources: Vanguard calculations, using data from Morningstar and MSCI.

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Implementation choices could influence adoption, risks, and benefits

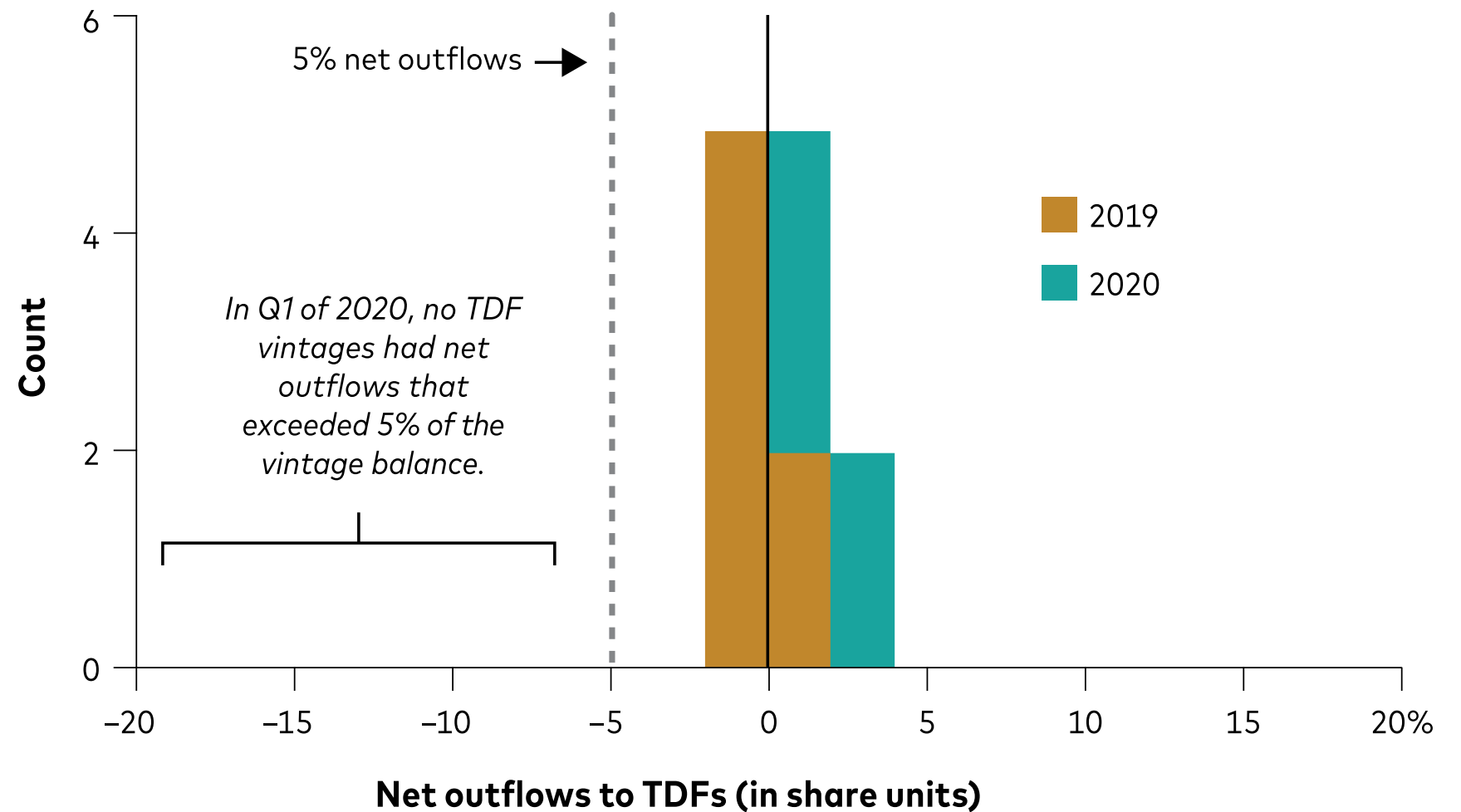
Feature	The default investment (e.g., TDF)	An optional managed account	A stand-alone investment option
Participant active choice	Not required	Required	Required
Share of participants likely to hold private assets	Most (59%)	Some (7%)*	Few
Manager of active and portfolio-level risk	Professional fund manager	Professional advisor	Participant
Liquidity constraints	Lower	Lower	Higher

*See Vanguard's *How America Saves 2025*.
Source: Vanguard.

TDF as a large vehicle likely addresses liquidity issues

Net outflows in fund shares rarely exceed 5% during large stock market drops

COVID-19-driven net outflows to TDFs (vintage level): Q1 2019 versus Q1 2020



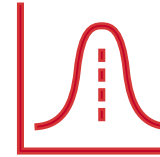
Notes: We examined the net outflows to TDFs (vintages 2025 to 2055). The figure presents the distribution of the net outflows to TDFs at the vintage level aggregated across all plans in Q1 2019 and Q1 2020.

Source: Vanguard calculations, based on recordkeeping data.

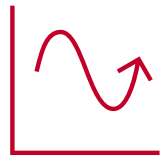
Key considerations for plan sponsors



Ability to select top-quartile active managers



Plan populations with longer tenures



Plan population comfort with volatility



Default investment (TDF) or stand-alone option

Important information

IMPORTANT: The projections and other information generated by the Vanguard Capital Markets Model (VCMM) regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. VCMM results will vary with each use and over time.

The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More importantly, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, U.S. municipal bonds, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over time. Forecasts represent the distribution of geometric returns over different time horizons. Results produced by the tool will vary with each use and over time.

All investing is subject to risk, including the possible loss of the money you invest.

Private investments involve a high degree of risk and, therefore, should be undertaken only by prospective investors capable of evaluating and bearing the risks such an investment represents. Investors in private equity generally must meet certain minimum financial qualifications that may make it unsuitable for specific market participants.

Investments in target-date funds are subject to the risks of their underlying funds. The year in the fund name refers to the approximate year (the target date) when an investor in the fund would retire and leave the workforce. The fund will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in target-date funds is not guaranteed at any time, including on or after the target date.

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