



North Dakota PERS Defined Contribution Plans

Fourth Quarter 2024
Executive Summary

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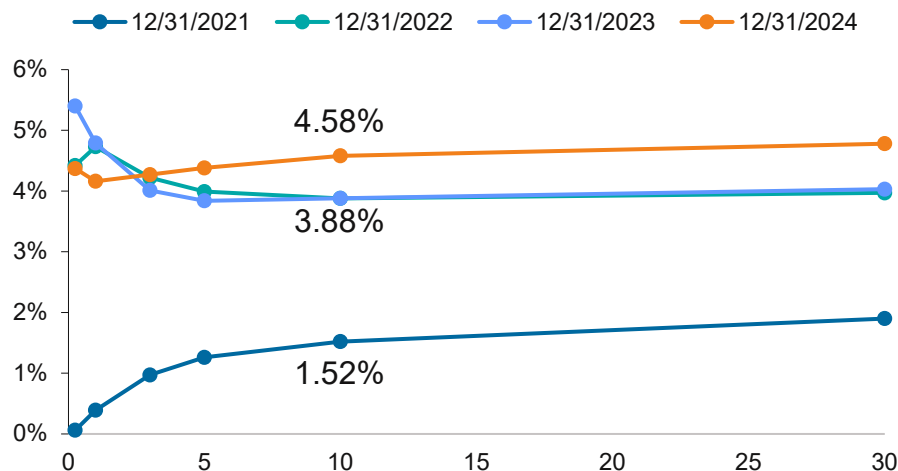
Market Update

U.S. Economy—Summary

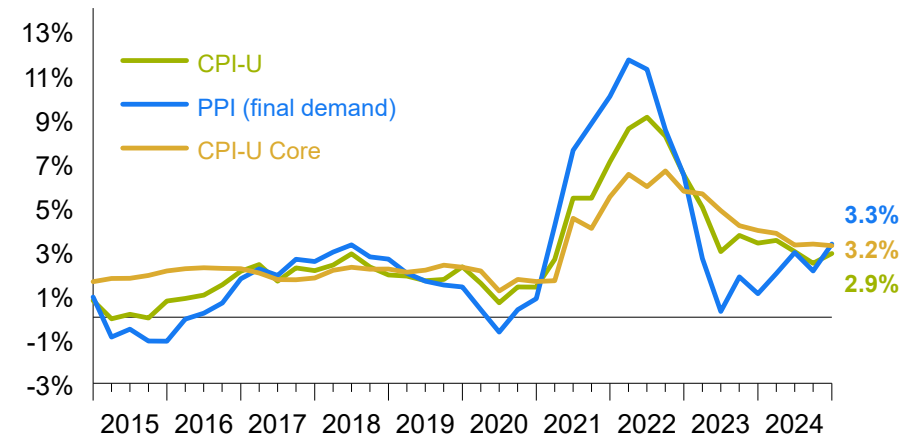
For periods ended 12/31/24

- ▶ The unemployment rate in December was 4.1%, down slightly from 4.2% in November and matching October's figure. This marks an increase from the 3.7% rate at the start of the year.
- ▶ GDP rose 2.3% in 4Q according to the advance estimate. A decrease from the 3Q reading of 3.1%.
- ▶ Headline CPI increased 2.9% year-over-year in December, while core CPI (ex-food and energy) increased 3.2% over the same period.
- ▶ The Fed cut rates by 25 bps in both November and December, bringing the target rate to 4.25%-4.50%. This marks a one percentage point drop from the Fed Funds Rate at the start of the year. The Fed held rates the same at the January 2025 meeting.

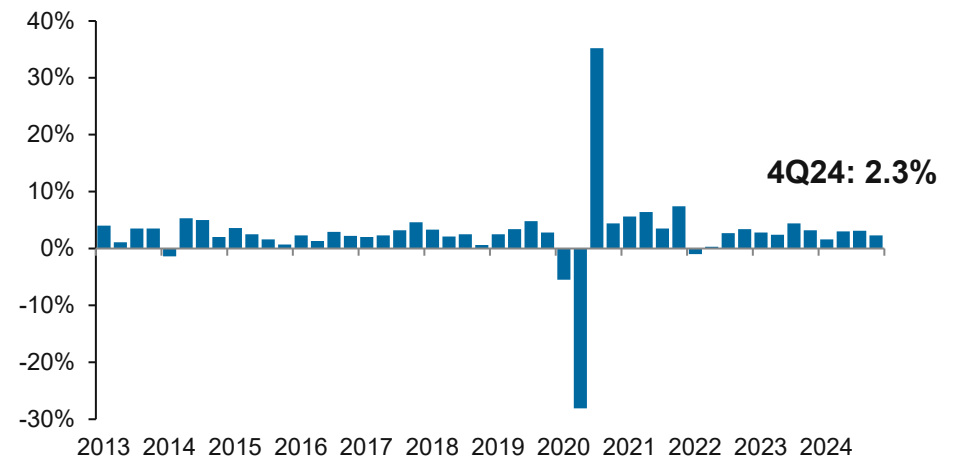
U.S. Treasury Yield Curves



Inflation Year-Over-Year



Quarterly Real GDP Growth



Sources: Bureau of Labor Statistics, Callan, Federal Reserve

Callan Periodic Table of Investment Returns

								Monthly Returns		
2021	2022	2023	2024	Q1 '24	Q2 '24	Q3 '24	Q4 '24	Oct 24	Nov 24	Dec 24
Large Cap Equity	Private Real Estate	Large Cap Equity	Large Cap Equity	Large Cap Equity	EM Equity	REITS	Large Cap Equity	Private Real Estate	Small Cap Equity	Private Real Estate
28.71%	7.56%	26.29%	4.60%	10.56%	5.00%	16.07%	2.41%	0.28%	10.97%	0.28%
REITS	Interm. Fixed Income	Dev Non-U.S. Equity	High Yield	Dev Non-U.S. Equity	Large Cap Equity	Small Cap Equity	Private Real Estate	High Yield	Large Cap Equity	EM Equity
26.09%	-8.23%	18.24%	1.80%	5.78%	4.28%	9.27%	0.85%	-0.54%	5.87%	-0.14%
Private Real Estate	High Yield	Small Cap Equity	Small Cap Equity	Small Cap Equity	High Yield	EM Equity	Small Cap Equity	Large Cap Equity	REITS	High Yield
21.88%	-11.19%	16.93%	1.04%	5.18%	1.09%	8.72%	0.33%	-0.91%	2.39%	-0.43%
Small Cap Equity	U.S. Fixed Income	High Yield	Private Real Estate	EM Equity	Interm. Fixed Income	Dev Non-U.S. Equity	High Yield	Small Cap Equity	High Yield	Interm. Fixed Income
14.82%	-13.01%	13.44%	0.82%	2.37%	0.64%	7.26%	0.17%	-1.44%	1.15%	-0.62%
Dev Non-U.S. Equity	Dev Non-U.S. Equity	EM Equity	Interm. Fixed Income	High Yield	U.S. Fixed Income	Large Cap Equity	Interm. Fixed Income	Interm. Fixed Income	U.S. Fixed Income	U.S. Fixed Income
11.26%	-14.45%	9.83%	-0.53%	1.47%	0.07%	5.89%	-1.60%	-1.60%	1.06%	-1.64%
High Yield	Large Cap Equity	REITS	U.S. Fixed Income	Interm. Fixed Income	Dev Non-U.S. Equity	High Yield	U.S. Fixed Income	U.S. Fixed Income	Interm. Fixed Income	Dev Non-U.S. Equity
5.28%	-18.11%	9.67%	-1.76%	-0.15%	-0.42%	5.28%	-3.06%	-2.48%	0.62%	-2.27%
Interm. Fixed Income	EM Equity	U.S. Fixed Income	EM Equity	U.S. Fixed Income	Private Real Estate	U.S. Fixed Income	EM Equity	EM Equity	Private Real Estate	Large Cap Equity
-1.44%	-20.09%	5.53%	-1.86%	-0.78%	-0.82%	5.20%	-8.01%	-4.45%	0.28%	-2.38%
U.S. Fixed Income	Small Cap Equity	Interm. Fixed Income	REITS	REITS	REITS	Interm. Fixed Income	Dev Non-U.S. Equity	REITS	Dev Non-U.S. Equity	REITS
-1.54%	-20.44%	5.24%	-6.97%	-1.30%	-2.43%	4.17%	-8.11%	-5.08%	-0.57%	-7.08%
EM Equity	REITS	Private Real Estate	Dev Non-U.S. Equity	Private Real Estate	Small Cap Equity	Private Real Estate	REITS	Dev Non-U.S. Equity	EM Equity	Small Cap Equity
-2.54%	-25.10%	-13.33%	-7.26%	-2.38%	-3.28%	-0.07%	-9.69%	-5.44%	-3.59%	-8.26%

Sources: ● Bloomberg Aggregate ● Bloomberg Corp High Yield ● Bloomberg Int. Gov/Credit ● NCREIF ODCE Equal Weight Net

● EPRA/NAREIT Developed ● MSCI EAFE ● MSCI Emerging Markets ● Russell 2000 ● S&P 500

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North Dakota PERS DC Plans

New Investment Structure With In-Plan Annuity Options

Tier I: Asset Allocation	Tier II: Passive Core	Tier II: Active Core	Tier III: Specialty
Target Date Funds Nuveen Lifecycle Retirement		Capital Preservation Galliard Stable Value Vanguard Treasury MM <i>Empower IFAS VI</i> <i>New York Life Anchor</i>	
	Core Fixed Income Vanguard Total Bond Index	Core Plus Fixed Income Baird Core Plus Bond	
	U.S. Large-Cap Equity Vanguard Institutional Index		
	Broad Non-U.S. Equity Vanguard Total Intn'l Index	Broad Non-U.S. Equity MFS International Diversification	
		U.S. Small/Mid-Cap Equity JP Morgan US SMID Core	
			Real Estate Cohen & Steers Realty
			Brokerage Window

* Two annuity options were implemented January 1, 2025

Plan Performance Monitoring

As of December 31, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Asset Allocation Funds					
Nuveen Lifecycle Ret. Inc	(1.47%)	7.66%	1.44%	4.43%	4.67%
LifeCycle Ret Income CB	(1.79%)	7.92%	1.51%	4.74%	5.09%
Callan Tgt Dt Idx 2010	(1.88%)	7.07%	1.21%	4.23%	4.64%
Nuveen Lifecycle 2010 Fund	(1.38%)	7.59%	1.51%	4.46%	4.70%
LifeCycle 2010 CB	(1.74%)	7.46%	1.30%	4.56%	4.97%
Callan Tgt Dt Idx 2010	(1.88%)	7.07%	1.21%	4.23%	4.64%
Nuveen Lifecycle 2015 Fund	(1.47%)	7.86%	1.45%	4.69%	4.93%
LifeCycle 2015 Cust Bnch	(1.78%)	8.09%	1.52%	4.99%	5.36%
CAI Tgt Dt Idx 2015	(1.89%)	7.36%	1.29%	4.48%	4.87%
Nuveen Lifecycle 2020 Fund	(1.50%)	8.33%	1.63%	5.05%	5.23%
LifeCycle 2020 Cust Bnchm	(1.77%)	8.77%	1.78%	5.47%	5.78%
CAI Tgt Dt Idx 2020	(1.90%)	7.86%	1.50%	4.90%	5.25%
Nuveen Lifecycle 2025 Fund	(1.49%)	9.06%	1.88%	5.67%	5.74%
LifeCycle 2025 Cust Bnch	(1.74%)	9.57%	2.09%	6.06%	6.31%
CAI Tgt Dt Idx 2025	(1.89%)	8.74%	1.89%	5.65%	5.90%
Nuveen Lifecycle 2030 Fund	(1.46%)	10.16%	2.31%	6.41%	6.34%
LifeCycle 2030 Cust Bnch	(1.67%)	10.74%	2.58%	6.81%	6.96%
CAI Tgt Dt Idx 2030	(1.83%)	10.13%	2.52%	6.57%	6.66%
Nuveen Lifecycle 2035 Fund	(1.51%)	11.36%	2.88%	7.22%	6.98%
LifeCycle 2035 Cust Bnch	(1.58%)	12.07%	3.24%	7.68%	7.68%
CAI Tgt Dt Idx 2035	(1.73%)	11.65%	3.24%	7.53%	7.44%
Nuveen Lifecycle 2040 Fund	(1.40%)	12.76%	3.61%	8.17%	7.69%
LifeCycle 2040 Cust Bnch	(1.42%)	13.78%	4.10%	8.67%	8.47%
CAI Tgt Dt Idx 2040	(1.65%)	13.05%	3.88%	8.31%	8.06%
Nuveen Lifecycle 2045 Fund	(1.34%)	13.80%	3.98%	8.86%	8.23%
LifeCycle 2045 Cust Bnch	(1.27%)	14.94%	4.52%	9.42%	9.07%
CAI Tgt Dt Idx 2045	(1.61%)	14.04%	4.33%	8.86%	8.48%
Nuveen Lifecycle 2050 Fund	(1.34%)	14.27%	4.14%	9.09%	8.40%
LifeCycle 2050 Cust Bnch	(1.19%)	15.49%	4.70%	9.67%	9.26%
CAI Tgt Dt Idx 2050	(1.58%)	14.65%	4.61%	9.14%	8.69%
Nuveen Lifecycle 2055 Fund	(1.29%)	14.46%	4.23%	9.19%	8.48%
LifeCycle 2055 Cust Bnch	(1.17%)	15.70%	4.79%	9.79%	9.36%
CAI Tgt Dt Idx 2055	(1.57%)	14.93%	4.73%	9.26%	8.78%
Nuveen Lifecycle 2060 Fund	(1.31%)	14.56%	4.29%	9.31%	8.57%
LifeCycle 2060 Cust Bnch	(1.14%)	15.91%	4.89%	9.92%	9.47%
Callan Tgt Dt Idx 2060	(1.57%)	15.04%	4.78%	9.32%	8.83%
Nuveen Lifecycle 2065 Fund	(1.30%)	14.71%	4.42%	-	-
LifeCycle 2065Custom Ben	(1.12%)	16.11%	4.98%	-	-
Callan Tgt Dt Idx 2065	(1.57%)	15.07%	4.80%	9.33%	8.83%

Plan Performance Monitoring

As of December 31, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Large Cap U.S. Equity					
Vanguard Institutional Index	2.40%	24.97%	8.90%	14.49%	13.80%
S&P 500 Index	2.41%	25.02%	8.94%	14.53%	13.83%
Small/Mid Cap U.S. Equity					
JPMorgan SMID Cap Equity R6	(1.37%)	10.99%	0.77%	6.93%	6.62%
Russell 2500 Index	0.62%	12.00%	2.39%	8.77%	8.33%
Non-U.S. Equity					
MFS International Diversification R6	(7.58%)	6.52%	0.38%	4.70%	5.07%
MSCI ACWI xUS (Net)	(7.60%)	5.53%	0.82%	4.10%	3.53%
Vanguard Total Int'l Stock Adm	(7.42%)	5.14%	0.67%	4.28%	3.61%
FTSE GI All Cap ex US Idx	(7.49%)	5.53%	0.83%	4.42%	3.71%
Fixed Income					
Vanguard Total Bond Index Adm	(3.04%)	1.24%	(2.42%)	(0.32%)	0.97%
Blmbg Aggregate Flt Adj	(2.99%)	1.33%	(2.39%)	(0.27%)	1.01%
Baird Core Plus Bond Instl	(2.67%)	2.54%	(1.52%)	0.56%	1.72%
Blmbg Universal	(2.73%)	2.04%	(1.95%)	0.06%	1.28%
Capital Preservation					
Galliard Stable Value C	0.77%	2.98%	2.51%	2.28%	2.23%
3-month Treasury Bill	1.17%	5.25%	3.89%	2.46%	2.35%
Vanguard Treasury MM Inv	1.17%	5.24%	3.92%	2.43%	2.30%
3-month Treasury Bill	1.17%	5.25%	3.89%	2.46%	2.35%
Sector Funds					
Cohen & Steers Realty Shares	(8.31%)	6.50%	(3.44%)	4.51%	6.83%
FTSE NAREIT All Eq Index	(8.15%)	4.92%	(4.28%)	3.29%	5.47%

Plan Investment Fees

As of December 31, 2024

Asset Class and Strategy	Ticker/Vehicle	Total Annual Operating Expense Ratio (Peer Ranking*)	Revenue Sharing %	Callan Peer Group Median**
Asset Allocation Funds				
Nuveen Lifecycle Ret. Inc	TLRIX	0.37% ⁽⁷⁷⁾	0.00%	0.50%
Nuveen Lifecycle 2010 Fund	TCTIX	0.37% ⁽⁵³⁾	0.00%	0.44%
Nuveen Lifecycle 2015 Fund	TCNIX	0.38% ⁽⁶⁷⁾	0.00%	0.50%
Nuveen Lifecycle 2020 Fund	TCWIX	0.39% ⁽⁷⁵⁾	0.00%	0.53%
Nuveen Lifecycle 2025 Fund	TCYIX	0.40% ⁽⁶⁹⁾	0.00%	0.52%
Nuveen Lifecycle 2030 Fund	TCRIX	0.41% ⁽⁶⁷⁾	0.00%	0.52%
Nuveen Lifecycle 2035 Fund	TCIIX	0.42% ⁽⁶⁵⁾	0.00%	0.53%
Nuveen Lifecycle 2040 Fund	TCOIX	0.43% ⁽⁶⁹⁾	0.00%	0.53%
Nuveen Lifecycle 2045 Fund	TTFIX	0.44% ⁽⁶⁵⁾	0.00%	0.53%
Nuveen Lifecycle 2050 Fund	TFTIX	0.45% ⁽⁶¹⁾	0.00%	0.53%
Nuveen Lifecycle 2055 Fund	TTRIX	0.45% ⁽⁶¹⁾	0.00%	0.53%
Nuveen Lifecycle 2060 Fund	TLXNX	0.45% ⁽⁶⁶⁾	0.00%	0.55%
Nuveen Lifecycle 2065 Fund	TSFTX	0.45%	0.00%	-

Fees for Stable Value funds are supplied by the manager. Fee information is provided by the recordkeeper. This data is not audited by Callan.

* A higher peer group ranking is more favorable.

** The peer group median is for the total annual operating expense ratio. Funds in the peer group may or may not contain revenue sharing.

Plan Investment Fees

As of December 31, 2024

Asset Class and Strategy	Ticker/Vehicle	Total Annual Operating Expense Ratio (Peer Ranking*)	Revenue Sharing %	Callan Peer Group Median**
U.S. Equity				
Large Cap U.S. Equity				
Vanguard Institutional Index	VINIX	0.04% ₍₉₉₎	0.00%	0.64%
Small/Mid Cap U.S. Equity				
JPMorgan SMID Cap Equity R6	WOOSX	0.59% ₍₈₄₎	0.00%	0.85%
Non-U.S. Equity				
Vanguard Total Int'l Stock Adm	VTIAX	0.09% ₍₉₉₎	0.00%	0.84%
Fixed Income				
Vanguard Total Bond Index Adm	VBTLX	0.05% ₍₉₉₎	0.00%	0.43%
Baird Core Plus Bond Instl	BCOIX	0.30% ₍₉₂₎	0.00%	0.46%
Capital Preservation				
Galliard Stable Value C	CIT	0.37% ₍₇₃₎	0.00%	0.40%
Vanguard Treasury MM Inv	VUSXX	0.09% ₍₉₅₎	0.00%	0.15%
Sector Funds				
Cohen & Steers Realty Shares	CSRSX	0.88% ₍₄₂₎	0.30%	0.81%

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* A higher peer group ranking is more favorable.

** The peer group median is for the total annual operating expense ratio. Funds in the peer group may or may not contain revenue sharing.

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