

BNY Mellon Midcap Index Fund, Inc.

ANNUAL FINANCIALS AND OTHER INFORMATION

October 31, 2024

Class	Ticker
Investor	PESPX
I	DMIDX

IMPORTANT NOTICE – CHANGES TO ANNUAL AND SEMI-ANNUAL REPORTS

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Contents

THE FUND

Please note the Annual Financials and Other Information only contains Items 7-11 required in Form N-CSR. All other required items will be filed with the SEC.

Item 7. Financial Statements and Financial Highlights for Open-End Management	
Investment Companies	3
Statement of Investments	3
Statement of Assets and Liabilities	14
Statement of Operations	15
Statement of Changes in Net Assets	16
Financial Highlights	17
Notes to Financial Statements	19
Report of Independent Registered Public Accounting Firm	24
Important Tax Information	25
Item 8. Changes in and Disagreements with Accountants for Open-End Management	
Investment Companies	26
Item 9. Proxy Disclosures for Open-End Management Investment Companies	27
Item 10. Remuneration Paid to Directors, Officers, and Other of Open-End	
Management Investment Companies	28
Item 11. Statement Regarding Basis for Approval of Investment Advisory Contract	29

Item 7. Financial Statements and Financial Highlights for Open-End Management Investment Companies.

BNY Mellon Midcap Index Fund, Inc.

Statement of Investments

October 31, 2024

Description	Shares	Value (\$)
Common Stocks — 99.3%		
Automobiles & Components — 1.1%		
Autoliv, Inc.	39,167	3,637,831
Gentex Corp.	122,965	3,727,069
Harley-Davidson, Inc.	62,553	1,998,568
Lear Corp.	29,730	2,846,945
The Goodyear Tire & Rubber Company ^(a)	156,346	1,252,332
Thor Industries, Inc.	28,626	2,979,394
Visteon Corp. ^(a)	14,567	1,314,672
		17,756,811
Banks — 6.1%		
Associated Banc-Corp.	78,282	1,858,415
Bank OZK	56,859	2,487,581
Cadence Bank	98,059	3,278,112
Columbia Banking System, Inc.	110,966	3,163,641
Commerce Bancshares, Inc.	62,346	3,896,625
Cullen/Frost Bankers, Inc.	34,002	4,330,155
East West Bancorp, Inc.	73,924	7,206,851
F.N.B. Corp.	192,351	2,789,089
First Financial Bankshares, Inc.	67,600	2,443,064
First Horizon Corp.	287,417	4,980,937
Flagstar Financial, Inc.	156,280	1,581,554
Glacier Bancorp, Inc.	60,535	3,156,900
Hancock Whitney Corp.	46,527	2,423,126
Home BancShares, Inc.	99,820	2,724,088
International Bancshares Corp.	28,173	1,725,878
Old National Bancorp	169,959	3,273,410
Pinnacle Financial Partners, Inc.	40,638	4,285,277
Prosperity Bancshares, Inc.	50,447	3,692,720
SouthState Corp.	40,501	3,950,062
Synovus Financial Corp.	76,754	3,827,722
Texas Capital Bancshares, Inc. ^(a)	24,883	1,914,747
UMB Financial Corp.	23,789	2,610,367
United Bankshares, Inc.	72,576	2,734,664
Valley National Bancorp	225,379	2,134,339
Webster Financial Corp.	91,234	4,725,921
Western Alliance Bancorp	58,361	4,856,219
Wintrust Financial Corp.	35,722	4,139,823
Zions Bancorp NA	78,346	4,078,693
		94,269,980
Capital Goods — 15.3%		
AAON, Inc.	36,046	4,117,174
Acuity Brands, Inc.	16,357	4,918,386
Advanced Drainage Systems, Inc.	37,606	5,636,387
AECOM	71,504	7,636,627
AGCO Corp.	32,871	3,281,841
Applied Industrial Technologies, Inc.	20,482	4,743,426
BWX Technologies, Inc.	48,758	5,936,287
Carlisle Cos., Inc.	24,596	10,385,169
Chart Industries, Inc. ^(a)	22,587	2,726,703

Statement of Investments (continued)

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Capital Goods — 15.3% (continued)		
CNH Industrial NV	468,084	5,256,583
Comfort Systems USA, Inc.	18,968	7,417,247
Core & Main, Inc., Cl. A ^(a)	103,582	4,586,611
Crane Co.	26,031	4,094,156
Curtiss-Wright Corp.	20,426	7,046,153
Donaldson Co., Inc.	64,217	4,698,116
EMCOR Group, Inc.	24,884	11,100,006
EnerSys	21,361	2,069,026
Esab Corp.	30,239	3,720,607
Flowserve Corp.	70,061	3,688,011
Fluor Corp. ^(a)	91,616	4,789,684
Fortune Brands Innovations, Inc.	66,141	5,511,530
GATX Corp.	19,042	2,623,226
Graco, Inc.	90,098	7,338,482
Hexcel Corp.	43,184	2,534,469
ITT, Inc.	43,850	6,144,262
Lennox International, Inc.	17,105	10,306,960
Lincoln Electric Holdings, Inc.	30,213	5,817,815
MasTec, Inc. ^(a)	32,668	4,014,571
MSC Industrial Direct Co., Inc., Cl. A	24,304	1,921,717
NEXTracker, Inc., Cl. A ^(a)	76,149	3,032,253
nVent Electric PLC	88,474	6,597,506
Oshkosh Corp.	34,357	3,512,660
Owens Corning	46,516	8,223,564
RBC Bearings, Inc. ^(a)	15,465	4,335,613
Regal Rexnord Corp.	35,397	5,895,016
Sensata Technologies Holding PLC	80,645	2,769,349
Simpson Manufacturing Co., Inc.	22,636	4,069,726
Terex Corp.	35,341	1,827,483
The Middleby Corp. ^(a)	28,752	3,729,134
The Timken Co.	33,949	2,817,767
The Toro Co.	55,811	4,491,669
Trex Co., Inc. ^(a)	57,579	4,079,472
UFP Industries, Inc.	32,344	3,956,965
Valmont Industries, Inc.	10,864	3,386,092
Watsco, Inc.	18,554	8,776,228
Watts Water Technologies, Inc., Cl. A	14,492	2,762,030
WESCO International, Inc.	23,799	4,568,694
Woodward, Inc.	31,768	5,212,811
		238,105,264
Commercial & Professional Services — 4.7%		
CACI International, Inc., Cl. A ^(a)	11,864	6,555,572
Clean Harbors, Inc. ^(a)	27,214	6,293,510
Concentrix Corp.	24,901	1,058,541
ExlService Holdings, Inc. ^(a)	86,074	3,586,704
Exponent, Inc.	26,800	2,529,384
FTI Consulting, Inc. ^(a)	18,740	3,655,799
Genpact Ltd.	87,318	3,332,928
Inspireity, Inc.	18,923	1,490,565

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Commercial & Professional Services — 4.7% (continued)		
KBR, Inc.	71,487	4,790,344
ManpowerGroup, Inc.	25,080	1,576,278
Maximus, Inc.	31,951	2,761,844
MSA Safety, Inc.	20,983	3,482,129
Parsons Corp. ^(a)	24,800	2,682,368
Paylocity Holding Corp. ^(a)	23,043	4,253,046
RB Global, Inc.	98,271	8,327,485
Science Applications International Corp.	27,175	3,921,081
Stericycle, Inc. ^(a)	48,950	3,008,956
Tetra Tech, Inc.	142,661	6,973,270
The Brink's Co.	23,870	2,453,597
		72,733,401
Consumer Discretionary Distribution & Retail — 4.4%		
Abercrombie & Fitch Co., Cl. A ^(a)	27,156	3,578,889
AutoNation, Inc. ^(a)	13,789	2,143,776
Burlington Stores, Inc. ^(a)	33,666	8,341,425
Dick's Sporting Goods, Inc.	30,891	6,046,913
Five Below, Inc. ^(a)	29,251	2,772,702
Floor & Decor Holdings, Inc., Cl. A ^(a)	57,155	5,889,823
GameStop Corp., Cl. A ^(a)	208,134	4,616,412
Lithia Motors, Inc.	14,315	4,757,877
Macy's, Inc.	146,359	2,245,147
Murphy USA, Inc.	9,894	4,832,724
Nordstrom, Inc.	51,454	1,163,375
Ollie's Bargain Outlet Holdings, Inc. ^(a)	32,988	3,029,288
Penske Automotive Group, Inc.	10,176	1,532,200
RH ^(a)	7,921	2,519,274
The Gap, Inc.	118,482	2,460,871
Valvoline, Inc. ^(a)	68,122	2,743,954
Williams-Sonoma, Inc.	68,904	9,242,094
		67,916,744
Consumer Durables & Apparel — 3.4%		
Brunswick Corp.	35,120	2,800,469
Capri Holdings Ltd. ^(a)	62,043	1,224,729
Carter's, Inc.	19,898	1,088,421
Columbia Sportswear Co.	17,633	1,418,928
Crocs, Inc. ^(a)	31,806	3,429,323
KB Home	38,339	3,009,612
Mattel, Inc. ^(a)	181,188	3,692,611
Polaris, Inc.	28,277	1,976,845
PVH Corp.	29,566	2,911,068
Skechers USA, Inc., Cl. A ^(a)	70,655	4,342,456
Taylor Morrison Home Corp. ^(a)	55,692	3,814,902
Tempur Sealy International, Inc.	92,778	4,444,994
Toll Brothers, Inc.	54,748	8,017,297
TopBuild Corp. ^(a)	15,990	5,650,546
Under Armour, Inc., Cl. A ^(a)	87,439	747,603
Under Armour, Inc., Cl. C ^(a)	70,591	557,669

Statement of Investments (continued)

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Consumer Durables & Apparel — 3.4% (continued)		
Whirlpool Corp.	29,004	3,002,204
YETI Holdings, Inc. ^(a)	46,263	1,628,920
		53,758,597
Consumer Services — 4.6%		
Aramark	140,979	5,333,236
Boyd Gaming Corp.	36,957	2,560,751
Choice Hotels International, Inc.	11,928	1,664,075
Churchill Downs, Inc.	39,130	5,482,113
Duolingo, Inc. ^(a)	19,897	5,829,224
Graham Holdings Co., Cl. B	1,811	1,527,216
Grand Canyon Education, Inc. ^(a)	15,604	2,139,464
H&R Block, Inc.	74,335	4,440,030
Hilton Grand Vacations, Inc. ^(a)	34,209	1,261,628
Hyatt Hotels Corp., Cl. A	23,954	3,484,109
Light & Wonder, Inc. ^(a)	47,527	4,457,082
Marriott Vacations Worldwide Corp.	17,317	1,333,929
Planet Fitness, Inc., Cl. A ^(a)	45,225	3,551,067
Service Corp. International	77,925	6,362,576
Texas Roadhouse, Inc.	35,562	6,796,609
The Wendy's Co.	90,164	1,723,034
Travel + Leisure Co.	37,433	1,789,672
Vail Resorts, Inc.	19,959	3,307,007
Wingstop, Inc.	15,629	4,496,307
Wyndham Hotels & Resorts, Inc.	42,217	3,728,605
		71,267,734
Consumer Staples Distribution & Retail — 2.3%		
BJ's Wholesale Club Holdings, Inc. ^(a)	71,177	6,030,827
Casey's General Stores, Inc.	19,793	7,798,838
Performance Food Group Co. ^(a)	83,113	6,752,931
Sprouts Farmers Market, Inc. ^(a)	53,358	6,852,768
US Foods Holding Corp. ^(a)	130,433	8,041,195
		35,476,559
Energy — 5.1%		
Antero Midstream Corp.	178,785	2,569,140
Antero Resources Corp. ^(a)	155,491	4,024,107
ChampionX Corp.	101,067	2,852,111
Chord Energy Corp.	33,147	4,146,690
Civitas Resources, Inc.	48,725	2,377,293
CNX Resources Corp. ^(a)	79,629	2,709,775
DT Midstream, Inc.	51,750	4,665,262
Expand Energy Corp.	110,122	9,329,536
HF Sinclair Corp.	86,859	3,353,626
Matador Resources Co.	61,560	3,207,892
Murphy Oil Corp.	76,672	2,413,635
NOV, Inc.	211,176	3,275,340
Ovintiv, Inc.	140,830	5,520,536
PBF Energy, Inc., Cl. A	54,470	1,553,484
Permian Resources Corp.	340,562	4,641,860
Range Resources Corp.	128,309	3,853,119

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Energy — 5.1% (continued)		
Texas Pacific Land Corp.	10,051	11,719,466
Valaris Ltd. ^(a)	35,129	1,777,527
Viper Energy, Inc.	53,765	2,790,403
Weatherford International PLC	38,882	3,071,678
		79,852,480
Equity Real Estate Investment Trusts — 6.7%		
Agree Realty Corp. ^(b)	53,382	3,963,613
American Homes 4 Rent, Cl. A ^(b)	167,813	5,913,730
Brixmor Property Group, Inc. ^(b)	161,584	4,354,689
COPT Defense Properties ^(b)	58,936	1,897,739
Cousins Properties, Inc. ^(b)	81,395	2,493,129
CubeSmart ^(b)	120,021	5,741,805
EastGroup Properties, Inc. ^(b)	25,882	4,433,069
EPR Properties ^(b)	40,709	1,846,967
Equity LifeStyle Properties, Inc. ^(b)	99,478	6,975,397
First Industrial Realty Trust, Inc. ^(b)	71,458	3,750,830
Gaming & Leisure Properties, Inc. ^(b)	146,290	7,342,295
Healthcare Realty Trust, Inc. ^(b)	193,598	3,326,014
Independence Realty Trust, Inc. ^(b)	120,415	2,362,542
Kilroy Realty Corp. ^(b)	56,984	2,291,896
Kite Realty Group Trust ^(b)	118,065	3,030,729
Lamar Advertising Co., Cl. A ^(b)	46,871	6,186,972
National Storage Affiliates Trust ^(b)	36,711	1,547,369
NNN REIT, Inc. ^(b)	97,786	4,247,824
Omega Healthcare Investors, Inc. ^(b)	137,070	5,821,363
Park Hotels & Resorts, Inc. ^(b)	109,781	1,524,858
PotlatchDeltic Corp. ^(b)	38,882	1,616,325
Rayonier, Inc. ^(b)	72,052	2,250,184
Rexford Industrial Realty, Inc. ^(b)	116,020	4,976,098
Sabra Health Care REIT, Inc. ^(b)	126,109	2,446,515
STAG Industrial, Inc. ^(b)	96,644	3,602,888
Vornado Realty Trust ^(b)	88,582	3,668,181
WP Carey, Inc. ^(b)	116,720	6,503,638
		104,116,659
Financial Services — 6.5%		
Affiliated Managers Group, Inc.	16,037	3,109,574
Ally Financial, Inc.	146,245	5,125,887
Annaly Capital Management, Inc. ^(b)	268,732	5,108,595
Equitable Holdings, Inc.	170,541	7,732,329
Essent Group Ltd.	56,259	3,376,103
Euronet Worldwide, Inc. ^(a)	22,321	2,197,949
Evercore, Inc., Cl. A	19,015	5,023,193
Federated Hermes, Inc.	41,626	1,670,451
FirstCash Holdings, Inc.	20,956	2,168,317
Hamilton Lane, Inc., Cl. A	21,497	3,861,721
Houlihan Lokey, Inc.	28,264	4,883,171
Interactive Brokers Group, Inc., Cl. A	58,047	8,856,811
Janus Henderson Group PLC	68,793	2,841,839
Jefferies Financial Group, Inc.	86,579	5,539,324

Statement of Investments (continued)

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Financial Services — 6.5% (continued)		
MGIC Investment Corp.	139,179	3,485,042
Morningstar, Inc.	14,370	4,714,079
SEI Investments Co.	52,615	3,933,497
SLM Corp.	116,633	2,569,425
Starwood Property Trust, Inc. ^(b)	168,501	3,326,210
Stifel Financial Corp.	54,332	5,629,882
The Carlyle Group, Inc.	111,486	5,577,645
The Western Union Company	180,596	1,943,213
Voya Financial, Inc.	52,807	4,240,402
WEX, Inc. ^(a)	22,043	3,804,622
		100,719,281
Food, Beverage & Tobacco — 1.5%		
Celsius Holdings, Inc. ^(a)	83,120	2,500,250
Coca-Cola Consolidated, Inc.	3,158	3,550,413
Darling Ingredients, Inc. ^(a)	84,438	3,302,370
Flowers Foods, Inc.	104,888	2,331,660
Ingredion, Inc.	34,538	4,585,265
Lancaster Colony Corp.	10,147	1,761,519
Pilgrim's Pride Corp. ^(a)	22,140	1,072,462
Post Holdings, Inc. ^(a)	25,440	2,778,302
The Boston Beer Company, Inc., Cl. A ^(a)	4,726	1,375,597
		23,257,838
Health Care Equipment & Services — 4.1%		
Acadia Healthcare Co., Inc. ^(a)	49,770	2,124,681
Amedisys, Inc. ^(a)	17,176	1,624,850
Chemed Corp.	8,062	4,355,415
DENTSPLY SIRONA, Inc.	107,729	2,496,081
Doximity, Inc., Cl. A ^(a)	67,212	2,805,429
Encompass Health Corp.	53,668	5,337,819
Enovis Corp. ^(a)	30,353	1,252,668
Envista Holdings Corp. ^(a)	91,791	1,924,857
Globus Medical, Inc., Cl. A ^(a)	60,044	4,415,636
Haemonetics Corp. ^(a)	26,970	1,919,185
HealthEquity, Inc. ^(a)	46,281	3,945,455
Lantheus Holdings, Inc. ^(a)	36,821	4,044,419
LivaNova PLC ^(a)	29,643	1,530,172
Masimo Corp. ^(a)	23,584	3,396,332
Neogen Corp. ^(a)	106,260	1,517,393
Option Care Health, Inc. ^(a)	91,201	2,101,271
Penumbra, Inc. ^(a)	20,645	4,725,021
R1 RCM, Inc. ^(a)	85,222	1,215,266
Tenet Healthcare Corp. ^(a)	51,106	7,922,452
The Ensign Group, Inc.	30,362	4,705,806
		63,360,208
Household & Personal Products — .6%		
BellRing Brands, Inc. ^(a)	68,930	4,537,662
Coty, Inc., Cl. A ^(a)	191,419	1,424,158
e.l.f. Beauty, Inc. ^(a)	30,229	3,181,602
		9,143,422

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Insurance — 4.5%		
American Financial Group, Inc.	38,282	4,935,698
Brighthouse Financial, Inc. ^(a)	32,077	1,517,242
CNO Financial Group, Inc.	57,220	1,968,368
Fidelity National Financial, Inc.	138,496	8,333,304
First American Financial Corp.	55,017	3,529,341
Kemper Corp.	32,079	1,997,560
Kinsale Capital Group, Inc.	11,718	5,016,593
Old Republic International Corp.	126,427	4,416,095
Primerica, Inc.	18,011	4,985,625
Reinsurance Group of America, Inc.	35,125	7,414,185
RenaissanceRe Holdings Ltd.	27,735	7,277,664
RLI Corp.	22,332	3,483,122
Ryan Specialty Holdings, Inc.	54,494	3,589,520
Selective Insurance Group, Inc.	32,843	2,982,801
The Hanover Insurance Group, Inc.	19,448	2,884,722
Unum Group	91,090	5,846,156
		70,177,996
Materials — 6.6%		
Alcoa Corp.	137,414	5,508,927
AptarGroup, Inc.	35,595	5,976,756
Arcadium Lithium PLC ^(a)	579,056	3,121,112
Ashland, Inc.	25,679	2,171,673
Avient Corp.	48,079	2,240,962
Axalta Coating Systems Ltd. ^(a)	116,915	4,433,417
Berry Global Group, Inc.	61,121	4,305,974
Cabot Corp.	29,296	3,158,988
Cleveland-Cliffs, Inc. ^(a)	248,130	3,220,727
Commercial Metals Co.	61,203	3,292,721
Crown Holdings, Inc.	63,492	5,939,677
Eagle Materials, Inc.	17,902	5,110,305
Graphic Packaging Holding Co.	159,616	4,510,748
Greif, Inc., Cl. A	14,042	876,782
Knife River Corp. ^(a)	30,435	2,961,934
Louisiana-Pacific Corp.	33,342	3,297,524
NewMarket Corp.	4,036	2,118,779
Olin Corp.	62,219	2,552,846
Reliance, Inc.	29,342	8,401,788
Royal Gold, Inc.	35,227	5,145,256
RPM International, Inc.	68,409	8,695,468
Silgan Holdings, Inc.	43,430	2,247,068
Sonoco Products Co.	52,929	2,779,831
The Chemours Company	79,947	1,451,838
The Scotts Miracle-Gro Company	22,867	1,988,972
United States Steel Corp.	119,325	4,635,776
Westlake Corp.	17,908	2,362,782
		102,508,631
Media & Entertainment — 1.0%		
Nexstar Media Group, Inc.	16,085	2,829,673
The New York Times Company, Cl. A	87,174	4,867,796

Statement of Investments (continued)

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Media & Entertainment — 1.0% (continued)		
TKO Group Holdings, Inc. ^(a)	35,614	4,158,647
Warner Music Group Corp., Cl. A	75,523	2,413,715
ZoomInfo Technologies, Inc. ^(a)	155,247	1,715,480
		15,985,311
Pharmaceuticals, Biotechnology & Life Sciences — 5.6%		
Arrowhead Pharmaceuticals, Inc. ^(a)	64,981	1,249,585
Avantor, Inc. ^(a)	362,588	8,111,094
Azenta, Inc. ^(a)	26,667	1,095,747
BioMarin Pharmaceutical, Inc. ^(a)	101,539	6,690,405
Bio-Rad Laboratories, Inc., Cl. A ^(a)	10,188	3,649,240
Bruker Corp.	59,231	3,353,067
Cytokines, Inc. ^(a)	63,373	3,232,023
Exelixis, Inc. ^(a)	150,787	5,006,128
Halozyne Therapeutics, Inc. ^(a)	67,242	3,400,428
Illumina, Inc. ^(a)	84,955	12,245,414
Jazz Pharmaceuticals PLC ^(a)	33,047	3,636,161
Medpace Holdings, Inc. ^(a)	13,442	4,223,745
Neurocrine Biosciences, Inc. ^(a)	53,707	6,459,341
Perrigo Co. PLC	72,193	1,850,307
Repligen Corp. ^(a)	27,649	3,712,431
Roivant Sciences Ltd. ^(a)	232,101	2,680,766
Sarepta Therapeutics, Inc. ^(a)	51,227	6,454,602
Sotera Health Co. ^(a)	79,972	1,253,161
United Therapeutics Corp. ^(a)	23,729	8,873,934
		87,177,579
Real Estate Management & Development — .4%		
Jones Lang LaSalle, Inc. ^(a)	25,207	6,830,089
Semiconductors & Semiconductor Equipment — 2.2%		
Allegro MicroSystems, Inc. ^(a)	84,747	1,766,128
Amkor Technology, Inc.	59,825	1,522,546
Cirrus Logic, Inc. ^(a)	28,367	3,115,264
Lattice Semiconductor Corp. ^(a)	73,256	3,711,149
MACOM Technology Solutions Holdings, Inc. ^(a)	30,476	3,425,502
MKS Instruments, Inc.	36,058	3,581,641
Onto Innovation, Inc. ^(a)	26,489	5,253,563
Power Integrations, Inc.	30,215	1,825,893
Rambus, Inc. ^(a)	57,622	2,755,484
Silicon Laboratories, Inc. ^(a)	17,085	1,774,448
Synaptics, Inc. ^(a)	21,537	1,478,946
Universal Display Corp.	23,471	4,232,291
		34,442,855
Software & Services — 3.4%		
Altair Engineering, Inc., Cl. A ^(a)	31,824	3,309,378
AppFolio, Inc., Cl. A ^(a)	12,207	2,537,469
ASGN, Inc. ^(a)	23,513	2,165,547
Aspen Technology, Inc. ^(a)	14,217	3,337,156
Blackbaud, Inc. ^(a)	21,162	1,597,943
Commvault Systems, Inc. ^(a)	23,150	3,615,798
DocuSign, Inc. ^(a)	109,364	7,587,674

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Software & Services — 3.4% (continued)		
Dolby Laboratories, Inc., Cl. A	32,255	2,351,390
Dropbox, Inc., Cl. A ^(a)	126,653	3,273,980
Dynatrace, Inc. ^(a)	158,885	8,548,013
Kyndryl Holdings, Inc. ^(a)	121,883	2,789,902
Manhattan Associates, Inc. ^(a)	32,564	8,576,055
Qualys, Inc. ^(a)	19,776	2,358,090
Teradata Corp. ^(a)	51,816	1,670,030
		53,718,425
Technology Hardware & Equipment — 3.7%		
Arrow Electronics, Inc. ^(a)	28,237	3,350,885
Avnet, Inc.	47,554	2,577,902
Belden, Inc.	21,711	2,472,232
Ciena Corp. ^(a)	76,644	4,867,660
Cognex Corp.	91,373	3,675,936
Coherent Corp. ^(a)	81,979	7,578,139
Crane NXT Co.	26,214	1,422,634
Fabrinet ^(a)	19,397	4,674,095
IPG Photonics Corp. ^(a)	14,493	1,173,353
Littelfuse, Inc.	13,212	3,232,052
Lumentum Holdings, Inc. ^(a)	36,027	2,301,045
Novanta, Inc. ^(a)	19,325	3,289,888
Pure Storage, Inc., Cl. A ^(a)	164,788	8,247,639
TD SYNEX Corp.	40,252	4,643,068
Vishay Intertechnology, Inc.	59,264	1,005,117
Vontier Corp.	81,646	3,027,434
		57,539,079
Telecommunication Services — .4%		
Frontier Communications Parent, Inc. ^(a)	118,651	4,239,400
Iridium Communications, Inc.	63,849	1,872,691
		6,112,091
Transportation — 2.5%		
American Airlines Group, Inc. ^(a)	350,174	4,692,332
Avis Budget Group, Inc.	9,110	756,130
GXO Logistics, Inc. ^(a)	64,193	3,839,383
Kirby Corp. ^(a)	31,050	3,563,298
Knight-Swift Transportation Holdings, Inc.	86,075	4,482,786
Landstar System, Inc.	19,068	3,351,583
Ryder System, Inc.	23,244	3,400,132
Saia, Inc. ^(a)	14,146	6,911,877
XPO, Inc. ^(a)	62,077	8,102,911
		39,100,432
Utilities — 2.6%		
ALLETE, Inc.	30,774	1,966,766
Black Hills Corp.	36,599	2,166,295
Essential Utilities, Inc.	134,896	5,206,985
IDACORP, Inc.	28,216	2,919,792
National Fuel Gas Co.	49,112	2,972,749
New Jersey Resources Corp.	52,211	2,395,963
NorthWestern Energy Group, Inc.	32,677	1,746,912

Statement of Investments (continued)

Description	Shares	Value (\$)
Common Stocks — 99.3% (continued)		
Utilities — 2.6% (continued)		
OGE Energy Corp.	107,131	4,284,169
ONE Gas, Inc.	30,132	2,147,508
Ormat Technologies, Inc.	28,808	2,276,408
Portland General Electric Co.	55,371	2,624,585
Southwest Gas Holdings, Inc.	31,624	2,316,458
Spire, Inc.	31,181	1,991,219
TXNM Energy, Inc.	48,732	2,121,791
UGI Corp.	115,282	2,756,393
		39,893,993
Total Common Stocks (cost \$947,602,669)		1,545,221,459
	1-Day Yield (%)	
Investment Companies — .7%		
Registered Investment Companies — .7%		
Dreyfus Institutional Preferred Government Plus Money Market Fund, Institutional Shares ^(c) (cost \$11,893,692)	4.95	11,893,692
		11,893,692
Total Investments (cost \$959,496,361)	100.0%	1,557,115,151
Liabilities, Less Cash and Receivables	(.0%)	(744,645)
Net Assets	100.0%	1,556,370,506

REIT—Real Estate Investment Trust

^(a) Non-income producing security.

^(b) Investment in real estate investment trust within the United States.

^(c) Investment in affiliated issuer. The investment objective of this investment company is publicly available and can be found within the investment company's prospectus.

Affiliated Issuers					
Description	Value (\$)			Value (\$)	Dividends/ Distributions (\$)
	10/31/2023	Purchases (\$) [†]	Sales (\$)	10/31/2024	
Registered Investment Companies - .7%					
Dreyfus Institutional Preferred Government Plus Money Market Fund, Institutional Shares - .7%	17,443,710	273,391,285	(278,941,303)	11,893,692	652,042
Investment of Cash Collateral for Securities Loaned - .0%					
Dreyfus Institutional Preferred Government Plus Money Market Fund, Institutional Shares - .0%	6,453,255	52,789,013	(59,242,268)	-	52,125 ^{††}
Total - .7%	23,896,965	326,180,298	(338,183,571)	11,893,692	704,167

[†] Includes reinvested dividends/distributions.

^{††} Represents securities lending income earned from the reinvestment of cash collateral from loaned securities, net of fees and collateral investment expenses, and other payments to and from borrowers of securities.

Futures					
Description	Number of Contracts	Expiration	Notional Value (\$)	Market Value (\$)	Unrealized (Depreciation) (\$)
Futures Long					
Standard & Poor's Midcap 400 E-mini	41	12/20/2024	13,203,507	12,765,760	(437,747)
Gross Unrealized Depreciation					(437,747)

See notes to financial statements.

STATEMENT OF ASSETS AND LIABILITIES

October 31, 2024

	Cost	Value
Assets (\$):		
Investments in securities—See Statement of Investments:		
Unaffiliated issuers	947,602,669	1,545,221,459
Affiliated issuers	11,893,692	11,893,692
Cash collateral held by broker—Note 4		856,000
Dividends receivable		421,220
Receivable for shares of Common Stock subscribed		258,859
Tax reclaim receivable		2,997
		1,558,654,227
Liabilities (\$):		
Due to BNY Mellon Investment Adviser, Inc. and affiliates—Note 3(b)		606,819
Payable for shares of Common Stock redeemed		1,470,212
Payable for futures variation margin—Note 4		171,895
Directors' fees and expenses payable		34,795
		2,283,721
Net Assets (\$)		1,556,370,506
Composition of Net Assets (\$):		
Paid-in capital		795,026,939
Total distributable earnings (loss)		761,343,567
Net Assets (\$)		1,556,370,506

Net Asset Value Per Share	Investor Shares	Class I
Net Assets (\$)	1,261,098,964	295,271,542
Shares Outstanding	39,857,426	9,381,880
Net Asset Value Per Share (\$)	31.64	31.47

See notes to financial statements.

STATEMENT OF OPERATIONS

Year Ended October 31, 2024

Investment Income (\$):	
Income:	
Cash dividends (net of \$4,495 foreign taxes withheld at source):	
Unaffiliated issuers	24,058,014
Affiliated issuers	652,042
Interest	67,908
Income from securities lending—Note 1(b)	52,125
Total Income	24,830,089
Expenses:	
Management fee—Note 3(a)	3,973,174
Shareholder servicing costs—Note 3(b)	3,217,404
Loan commitment fees—Note 2	38,808
Directors' fees—Notes 3(a) and 3(c)	37,440
Interest expense—Note 2	6,010
Total Expenses	7,272,836
Less—Directors' fees reimbursed by BNY Mellon Investment Adviser, Inc.—Note 3(a)	(37,440)
Net Expenses	7,235,396
Net Investment Income	17,594,693
Realized and Unrealized Gain (Loss) on Investments—Note 4 (\$):	
Net realized gain (loss) on investments	183,521,752
Net realized gain (loss) on futures	3,938,762
Net Realized Gain (Loss)	187,460,514
Net change in unrealized appreciation (depreciation) on investments	231,730,628
Net change in unrealized appreciation (depreciation) on futures	507,769
Net Change in Unrealized Appreciation (Depreciation)	232,238,397
Net Realized and Unrealized Gain (Loss) on Investments	419,698,911
Net Increase in Net Assets Resulting from Operations	437,293,604

See notes to financial statements.

STATEMENT OF CHANGES IN NET ASSETS

	Year Ended October 31,	
	2024	2023
Operations (\$):		
Net investment income	17,594,693	18,599,114
Net realized gain (loss) on investments	187,460,514	141,836,466
Net change in unrealized appreciation (depreciation) on investments	232,238,397	(172,517,831)
Net Increase (Decrease) in Net Assets Resulting from Operations	437,293,604	(12,082,251)
Distributions (\$):		
Distributions to shareholders:		
Investor Shares	(113,232,052)	(177,879,425)
Class I	(27,739,669)	(50,021,608)
Total Distributions	(140,971,721)	(227,901,033)
Capital Stock Transactions (\$):		
Net proceeds from shares sold:		
Investor Shares	102,797,551	112,505,837
Class I	65,383,162	46,761,684
Distributions reinvested:		
Investor Shares	110,554,091	173,523,704
Class I	20,305,899	32,120,992
Cost of shares redeemed:		
Investor Shares	(340,722,325)	(259,178,286)
Class I	(118,385,645)	(148,728,378)
Increase (Decrease) in Net Assets from Capital Stock Transactions	(160,067,267)	(42,994,447)
Total Increase (Decrease) in Net Assets	136,254,616	(282,977,731)
Net Assets (\$):		
Beginning of Period	1,420,115,890	1,703,093,621
End of Period	1,556,370,506	1,420,115,890
Capital Share Transactions (Shares):		
Investor Shares^(a)		
Shares sold	3,493,496	3,997,057
Shares issued for distributions reinvested	3,931,511	6,570,379
Shares redeemed	(11,538,456)	(9,182,798)
Net Increase (Decrease) in Shares Outstanding	(4,113,449)	1,384,638
Class I^(a)		
Shares sold	2,235,179	1,676,595
Shares issued for distributions reinvested	727,549	1,224,590
Shares redeemed	(4,022,853)	(5,199,502)
Net Increase (Decrease) in Shares Outstanding	(1,060,125)	(2,298,317)

^(a) During the period ended October 31, 2024, 44,015 Investor shares representing \$1,357,314 were exchanged for 44,276 Class I shares and during the period ended October 31, 2023, 12,823 Class I shares representing \$361,877 were exchanged for 12,757 Investor shares.

See notes to financial statements.

FINANCIAL HIGHLIGHTS

The following tables describe the performance for each share class for the fiscal periods indicated. All information (except portfolio turnover rate) reflects financial results for a single fund share. Net asset value total return is calculated assuming an initial investment made at the net asset value at the beginning of the period, reinvestment of all dividends and distributions at net asset value during the period, and redemption at net asset value on the last day of the period. Net asset value total return includes adjustments in accordance with accounting principles generally accepted in the United States of America and as such, the net asset value for financial reporting purposes and the returns based upon those net asset values may differ from the net asset value and returns for shareholder transactions.

Investor Shares	Year Ended October 31,				
	2024	2023	2022	2021	2020
Per Share Data (\$):					
Net asset value, beginning of period	26.12	30.81	40.42	30.27	34.13
Investment Operations:					
Net investment income ^(a)	.32	.31	.33	.31	.34
Net realized and unrealized gain (loss) on investments	7.82	(.74)	(4.55)	13.50	(.67)
Total from Investment Operations	8.14	(.43)	(4.22)	13.81	(.33)
Distributions:					
Dividends from net investment income	(.33)	(.39)	(.33)	(.38)	(.43)
Dividends from net realized gain on investments	(2.29)	(3.87)	(5.06)	(3.28)	(3.10)
Total Distributions	(2.62)	(4.26)	(5.39)	(3.66)	(3.53)
Net asset value, end of period	31.64	26.12	30.81	40.42	30.27
Total Return (%)	32.41	(1.58)	(11.97)	48.22	(1.66)
Ratios/Supplemental Data (%):					
Ratio of total expenses to average net assets	.51	.51	.53	.51	.52
Ratio of net expenses to average net assets	.50	.51	.52	.50	.50
Ratio of net investment income to average net assets	1.06	1.11	1.01	.83	1.13
Portfolio Turnover Rate	17.87	17.50	14.80	15.42	17.90
Net Assets, end of period (\$ x 1,000)	1,261,099	1,148,638	1,311,952	1,806,658	1,466,328

^(a) Based on average shares outstanding.

See notes to financial statements.

FINANCIAL HIGHLIGHTS (continued)

Class I Shares	Year Ended October 31,				
	2024	2023	2022	2021	2020
Per Share Data (\$):					
Net asset value, beginning of period	26.00	30.70	40.32	30.20	34.07
Investment Operations:					
Net investment income ^(a)	.39	.39	.42	.40	.42
Net realized and unrealized gain (loss) on investments	7.77	(.74)	(4.55)	13.46	(.67)
Total from Investment Operations	8.16	(.35)	(4.13)	13.86	(.25)
Distributions:					
Dividends from net investment income	(.40)	(.48)	(.43)	(.46)	(.52)
Dividends from net realized gain on investments	(2.29)	(3.87)	(5.06)	(3.28)	(3.10)
Total Distributions	(2.69)	(4.35)	(5.49)	(3.74)	(3.62)
Net asset value, end of period	31.47	26.00	30.70	40.32	30.20
Total Return (%)	32.71	(1.30)	(11.76)	48.61	(1.42)
Ratios/Supplemental Data (%):					
Ratio of total expenses to average net assets	.26	.26	.28	.26	.27
Ratio of net expenses to average net assets	.25	.26	.27	.25	.25
Ratio of net investment income to average net assets	1.31	1.37	1.27	1.09	1.40
Portfolio Turnover Rate	17.87	17.50	14.80	15.42	17.90
Net Assets, end of period (\$ x 1,000)	295,272	271,478	391,141	622,795	539,454

^(a) Based on average shares outstanding.

See notes to financial statements.

NOTES TO FINANCIAL STATEMENTS

NOTE 1—Significant Accounting Policies:

BNY Mellon Midcap Index Fund, Inc. (the “fund”), which is registered under the Investment Company Act of 1940, as amended (the “Act”), is a diversified open-end management investment company. The fund’s investment objective is to seek to match the performance of the S&P’s MidCap 400® Index. BNY Mellon Investment Adviser, Inc. (the “Adviser”), a wholly-owned subsidiary of The Bank of New York Mellon Corporation (“BNY”), serves as the fund’s investment adviser.

BNY Mellon Securities Corporation (the “Distributor”), a wholly-owned subsidiary of the Adviser, is the distributor of the fund’s shares, which are sold to the public without a sales charge. The fund is authorized to issue 300 million shares of \$.001 par value Common Stock. The fund currently has authorized two authorized classes of shares: Investor shares (200 million shares authorized) and Class I (100 million shares authorized). Investor shares are sold primarily to retail investors through financial intermediaries and bear Shareholder Services Plan fees. Class I shares are sold primarily to bank trust departments and other financial service providers (including BNY and its affiliates), acting on behalf of customers having a qualified trust or an investment account or relationship at such institution, and bear no Shareholder Services Plan fees. Other differences between the classes include the services offered to and the expenses borne by each class, and certain voting rights. Income, expenses (other than expenses attributable to a specific class), and realized and unrealized gains or losses on investments are allocated to each class of shares based on its relative net assets.

The Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) is the exclusive reference of authoritative U.S. generally accepted accounting principles (“GAAP”) recognized by the FASB to be applied by nongovernmental entities. Rules and interpretive releases of the Securities and Exchange Commission (“SEC”) under authority of federal laws are also sources of authoritative GAAP for SEC registrants. The fund is an investment company and applies the accounting and reporting guidance of the FASB ASC Topic 946 Financial Services-Investment Companies. The fund’s financial statements are prepared in accordance with GAAP, which may require the use of management estimates and assumptions. Actual results could differ from those estimates.

The fund enters into contracts that contain a variety of indemnifications. The fund’s maximum exposure under these arrangements is unknown. The fund does not anticipate recognizing any loss related to these arrangements.

(a) Portfolio valuation: The fair value of a financial instrument is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (i.e., the exit price). GAAP establishes a fair value hierarchy that prioritizes the inputs of valuation techniques used to measure fair value. This hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

Additionally, GAAP provides guidance on determining whether the volume and activity in a market has decreased significantly and whether such a decrease in activity results in transactions that are not orderly. GAAP requires enhanced disclosures around valuation inputs and techniques used during annual and interim periods.

Various inputs are used in determining the value of the fund’s investments relating to fair value measurements. These inputs are summarized in the three broad levels listed below:

Level 1—unadjusted quoted prices in active markets for identical investments.

Level 2—other significant observable inputs (including quoted prices for similar investments, interest rates, prepayment speeds, credit risk, etc.).

Level 3—significant unobservable inputs (including the fund’s own assumptions in determining the fair value of investments).

The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities.

Changes in valuation techniques may result in transfers in or out of an assigned level within the disclosure hierarchy. Valuation techniques used to value the fund’s investments are as follows:

The fund’s Board of Directors (the “Board”) has designated the Adviser as the fund’s valuation designee to make all fair value determinations with respect to the fund’s portfolio investments, subject to the Board’s oversight and pursuant to Rule 2a-5 under the Act.

Investments in equity securities are valued at the last sales price on the securities exchange or national securities market on which such securities are primarily traded. Securities listed on the National Market System for which market quotations are available are valued at the official closing price or, if there is no official closing price that day, at the last sales price. For open short positions, asked prices are

used for valuation purposes. Bid price is used when no asked price is available. Registered investment companies that are not traded on an exchange are valued at their net asset value. All of the preceding securities are generally categorized within Level 1 of the fair value hierarchy.

Securities not listed on an exchange or the national securities market, or securities for which there were no transactions, are valued at the average of the most recent bid and asked prices. These securities are generally categorized within Level 2 of the fair value hierarchy.

Fair valuing of securities may be determined with the assistance of a pricing service using calculations based on indices of domestic securities and other appropriate indicators, such as prices of relevant American Depositary Receipts and futures. Utilizing these techniques may result in transfers between Level 1 and Level 2 of the fair value hierarchy.

When market quotations or official closing prices are not readily available, or are determined not to accurately reflect fair value, such as when the value of a security has been significantly affected by events after the close of the exchange or market on which the security is principally traded, but before the fund calculates its net asset value, the fund may value these investments at fair value as determined in accordance with the procedures approved by the Board. Certain factors may be considered when fair valuing investments such as: fundamental analytical data, the nature and duration of restrictions on disposition, an evaluation of the forces that influence the market in which the securities are purchased and sold, and public trading in similar securities of the issuer or comparable issuers. These securities are either categorized within Level 2 or 3 of the fair value hierarchy depending on the relevant inputs used.

For securities where observable inputs are limited, assumptions about market activity and risk are used and such securities are generally categorized within Level 3 of the fair value hierarchy.

Futures, which are traded on an exchange, are valued at the last sales price on the securities exchange on which such securities are primarily traded or at the last sales price on the national securities market on each business day and are generally categorized within Level 1 of the fair value hierarchy.

The following is a summary of the inputs used as of October 31, 2024 in valuing the fund's investments:

	Level 1 - Unadjusted Quoted Prices	Level 2- Other Significant Observable Inputs	Level 3- Significant Unobservable Inputs	Total
Assets (\$)				
Investments in Securities: [†]				
Equity Securities -				
Common Stocks	1,545,221,459	—	—	1,545,221,459
Investment Companies	11,893,692	—	—	11,893,692
Liabilities (\$)				
Other Financial Instruments:				
Futures ^{††}	(437,747)	—	—	(437,747)

[†] See Statement of Investments for additional detailed categorizations, if any.

^{††} Amount shown represents unrealized appreciation (depreciation) at period end, but only variation margin on exchange-traded and centrally cleared derivatives, if any, are reported in the Statement of Assets and Liabilities.

(b) Securities transactions and investment income: Securities transactions are recorded on a trade date basis. Realized gains and losses from securities transactions are recorded on the identified cost basis. Dividend income is recognized on the ex-dividend date and interest income, including, where applicable, accretion of discount and amortization of premium on investments, is recognized on the accrual basis.

Pursuant to a securities lending agreement with BNY, the fund may lend securities to qualified institutions. It is the fund's policy that, at origination, all loans are secured by collateral of at least 102% of the value of U.S. securities loaned and 105% of the value of foreign securities loaned. Collateral equivalent to at least 100% of the market value of securities on loan is maintained at all times. Collateral is either in the form of cash, which can be invested in certain money market mutual funds managed by the Adviser, or U.S. Government and Agency securities. Any non-cash collateral received cannot be sold or re-pledged by the fund, except in the event of borrower default. The securities on loan, if any, are also disclosed in the fund's Statement of Investments. The fund is entitled to receive all dividends, interest and distributions on securities loaned, in addition to income earned as a result of the lending transaction. Should a

borrower fail to return the securities in a timely manner, BNY is required to replace the securities for the benefit of the fund or credit the fund with the market value of the unreturned securities and is subrogated to the fund's rights against the borrower and the collateral. Additionally, the contractual maturity of security lending transactions are on an overnight and continuous basis. During the period ended October 31, 2024, BNY earned \$7,105 from the lending of the fund's portfolio securities, pursuant to the securities lending agreement.

For financial reporting purposes, the fund elects not to offset assets and liabilities subject to a securities lending agreement, if any, in the Statement of Assets and Liabilities. Therefore, all qualifying transactions are presented on a gross basis in the Statement of Assets and Liabilities. As of October 31, 2024, the fund had no securities on loan.

(c) Affiliated issuers: Investments in other investment companies advised by the Adviser are considered "affiliated" under the Act.

(d) Market Risk: The value of the securities in which the fund invests may be affected by political, regulatory, economic and social developments, and developments that impact specific economic sectors, industries or segments of the market. In addition, turbulence in financial markets and reduced liquidity in equity, credit and/or fixed-income markets may negatively affect many issuers, which could adversely affect the fund. Global economies and financial markets are becoming increasingly interconnected, and conditions and events in one country, region or financial market may adversely impact issuers in a different country, region or financial market. These risks may be magnified if certain events or developments adversely interrupt the global supply chain; in these and other circumstances, such risks might affect companies world-wide.

Indexing Strategy Risk: The fund uses an indexing strategy. It does not attempt to manage market volatility, use defensive strategies or reduce the effects of any long-term periods of poor index performance. The correlation between fund and index performance may be affected by the fund's expenses and/or use of sampling techniques, changes in securities markets, changes in the composition of the index and the timing of purchases and redemptions of fund shares.

(e) Dividends and distributions to shareholders: Dividends and distributions are recorded on the ex-dividend date. Dividends from net investment income and dividends from net realized capital gains, if any, are normally declared and paid annually, but the fund may make distributions on a more frequent basis to comply with the distribution requirements of the Internal Revenue Code of 1986, as amended (the "Code"). To the extent that net realized capital gains can be offset by capital loss carryovers, it is the policy of the fund not to distribute such gains. Income and capital gain distributions are determined in accordance with income tax regulations, which may differ from GAAP.

(f) Federal income taxes: It is the policy of the fund to continue to qualify as a regulated investment company, if such qualification is in the best interests of its shareholders, by complying with the applicable provisions of the Code, and to make distributions of taxable income and net realized capital gain sufficient to relieve it from substantially all federal income and excise taxes.

As of and during the period ended October 31, 2024, the fund did not have any liabilities for any uncertain tax positions. The fund recognizes interest and penalties, if any, related to uncertain tax positions as income tax expense in the Statement of Operations. During the period ended October 31, 2024, the fund did not incur any interest or penalties.

Each tax year in the four-year period ended October 31, 2024 remains subject to examination by the Internal Revenue Service and state taxing authorities.

At October 31, 2024, the components of accumulated earnings on a tax basis were as follows: undistributed ordinary income \$31,392,373, undistributed capital gains \$144,077,657 and unrealized appreciation \$585,873,537.

The tax character of distributions paid to shareholders during the fiscal years ended October 31, 2024 and October 31, 2023 were as follows: ordinary income \$18,284,263 and \$21,750,133, and long-term capital gains \$122,687,458 and \$206,150,900, respectively.

During the period ended October 31, 2024, as a result of permanent book to tax differences, primarily due to the tax treatment for treating a portion of the proceeds from redemptions as a distribution for tax purposes, the fund decreased total distributable earnings (loss) by \$23,665,591 and increased paid-in capital by the same amount. Net assets and net asset value per share were not affected by this reclassification.

NOTE 2—Bank Lines of Credit:

The fund participates with other long-term open-end funds managed by the Adviser in a \$738 million unsecured credit facility led by Citibank, N.A. (the "Citibank Credit Facility") and a \$300 million unsecured credit facility provided by BNY (the "BNY Credit Facility"), each to be utilized primarily for temporary or emergency purposes, including the financing of redemptions (each, a "Facility"). The Citibank Credit Facility is available in two tranches: (i) Tranche A is in an amount equal to \$618 million and is available to all

long-term open-ended funds, including the fund, and (ii) Tranche B is an amount equal to \$120 million and is available only to BNY Mellon Floating Rate Income Fund, a series of BNY Mellon Investment Funds IV, Inc. In connection therewith, the fund has agreed to pay its pro rata portion of commitment fees for Tranche A of the Citibank Credit Facility and the BNY Credit Facility. Interest is charged to the fund based on rates determined pursuant to the terms of the respective Facility at the time of borrowing.

During the period ended October 31, 2024, the fund was charged \$6,010 for interest expense. These fees are included in Interest expense in the Statement of Operations. The average amount of borrowings outstanding under the Citibank Credit Facility during the period ended October 31, 2024 was approximately \$93,989 with a related weighted average annualized interest rate of 6.39%. As of October 31, 2024, the fund has no outstanding loan balance from either Facility.

NOTE 3—Management Fee and Other Transactions with Affiliates:

(a) Pursuant to a management agreement with the Adviser, the management fee is computed at the annual rate of .25% of the value of the fund's average daily net assets and is payable monthly. The Adviser has agreed in its management agreement with the fund to: (1) pay all of the fund's direct expenses, except management fees, Shareholder Services Plan fees and certain other expenses, including the fees and expenses of the non-interested board members and the fees and expenses of counsel to the fund and to the non-interested board members, and (2) reduce its fees pursuant to the management agreement in an amount equal to the fund's allocable portion of the fees and expenses of the non-interested board members and the fees and expenses of counsel to the fund and to the non-interested board members. These provisions in the management agreement may not be amended without the approval of the fund's shareholders. During the period ended October 31, 2024, fees reimbursed by the Adviser amounted to \$37,440.

(b) Under the Shareholder Services Plan, Investor shares pay the Distributor at an annual rate of .25% of the value of their average daily net assets for the provision of certain services. The services provided may include personal services relating to shareholder accounts, such as answering shareholder inquiries regarding the fund, and services related to the maintenance of shareholder accounts. The Distributor may make payments to Service Agents (securities dealers, financial institutions or other industry professionals) with respect to these services. The Distributor determines the amounts to be paid to Service Agents. During the period ended October 31, 2024, Investor shares were charged \$3,217,404 pursuant to the Shareholder Services Plan.

The fund has an arrangement with The Bank of New York Mellon (the "Custodian"), a subsidiary of BNY and an affiliate of the Adviser, whereby the fund will receive interest income or be charged overdraft fees when cash balances are maintained. For financial reporting purposes, the fund includes this interest income and overdraft fees, if any, as interest income in the Statement of Operations.

The components of "Due to BNY Mellon Investment Adviser, Inc. and affiliates" in the Statement of Assets and Liabilities consist of: Management fee of \$336,441, Shareholder Services Plan fees of \$272,548, which are offset against an expense reimbursement currently in effect in the amount of \$2,170.

(c) Each board member of the fund also serves as a board member of other funds in the BNY Mellon Family of Funds complex. Annual retainer fees and attendance fees are allocated to each fund based on net assets.

NOTE 4—Securities Transactions:

The aggregate amount of purchases and sales of investment securities, excluding short-term securities and derivatives, during the period ended October 31, 2024, amounted to \$280,936,659 and \$552,895,939, respectively.

Derivatives: A derivative is a financial instrument whose performance is derived from the performance of another asset. Rule 18f-4 under the Act regulates the use of derivatives transactions for certain funds registered under the Act. The fund is deemed a "limited" derivatives user under the rule and is required to limit its derivatives exposure so that the total notional value of applicable derivatives does not exceed 10% of fund's net assets, and is subject to certain reporting requirements. Each type of derivative instrument that was held by the fund during the period ended October 31, 2024 is discussed below.

Futures: In the normal course of pursuing its investment objective, the fund is exposed to market risk, including equity price risk, as a result of changes in value of underlying financial instruments. The fund invests in futures in order to manage its exposure to or protect against changes in the market. A futures contract represents a commitment for the future purchase or a sale of an asset at a specified date. Upon entering into such contracts, these investments require initial margin deposits with a counterparty, which consist of cash or cash equivalents. The amount of these deposits is determined by the exchange or Board of Trade on which the contract is traded and is subject to change. Accordingly, variation margin payments are received or made to reflect daily unrealized gains or losses which are recorded in the Statement of Operations. When the contracts are closed, the fund recognizes a realized gain or loss which is reflected in

NOTES TO FINANCIAL STATEMENTS (continued)

the Statement of Operations. There is minimal counterparty credit risk to the fund with futures since they are exchange traded, and the exchange guarantees the futures against default. Futures open at October 31, 2024 are set forth in the Statement of Investments.

The following tables show the fund's exposure to different types of market risk as it relates to the Statement of Assets and Liabilities and the Statement of Operations, respectively.

Fair value of derivative instruments as of October 31, 2024 is shown below:

	Derivative Assets (\$)		Derivative Liabilities (\$)
Equity Risk	-	Equity Risk	(437,747) ⁽¹⁾
Gross fair value of derivative contracts	-		(437,747)

Statement of Assets and Liabilities location:

⁽¹⁾ Includes cumulative appreciation (depreciation) on futures as reported in the Statement of Investments, but only the unpaid variation margin is reported in the Statement of Assets and Liabilities.

The effect of derivative instruments in the Statement of Operations during the period ended October 31, 2024 is shown below:

Amount of realized gain (loss) on derivatives recognized in income (\$)		
Underlying risk	Futures ⁽¹⁾	Total
Equity	3,938,762	3,938,762
Total	3,938,762	3,938,762

Net change in unrealized appreciation (depreciation) on derivatives recognized in income (\$)		
Underlying risk	Futures ⁽²⁾	Total
Equity	507,769	507,769
Total	507,769	507,769

Statement of Operations location:

⁽¹⁾ Net realized gain (loss) on futures.

⁽²⁾ Net change in unrealized appreciation (depreciation) on futures.

The following table summarizes the monthly average market value of derivatives outstanding during the period ended October 31, 2024:

	Average Market Value (\$)
Futures:	
Equity Futures Long	16,078,586
Equity Futures Short	2,427,772

At October 31, 2024, the cost of investments for federal income tax purposes was \$971,241,614; accordingly, accumulated net unrealized appreciation on investments was \$585,873,537, consisting of \$659,563,732 gross unrealized appreciation and \$73,690,195 gross unrealized depreciation.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of BNY Mellon Midcap Index Fund, Inc.

Opinion on the Financial Statements

We have audited the accompanying statement of assets and liabilities of BNY Mellon Midcap Index Fund, Inc. (the “Fund”), including the statement of investments, as of October 31, 2024, and the related statement of operations for the year then ended, the statements of changes in net assets for each of the two years in the period then ended, the financial highlights for each of the five years in the period then ended and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Fund at October 31, 2024, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period then ended and its financial highlights for each of the five years in the period then ended, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Fund’s management. Our responsibility is to express an opinion on the Fund’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Fund in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Fund is not required to have, nor were we engaged to perform, an audit of the Fund’s internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purposes of expressing an opinion on the effectiveness of the Fund’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our procedures included confirmation of securities owned as of October 31, 2024, by correspondence with the custodian, brokers and others; when replies were not received from brokers and others, we performed other auditing procedures. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Ernst & Young LLP

We have served as the auditor of one or more investment companies in the BNY Mellon Family of Funds since at least 1957, but we are unable to determine the specific year.

New York, New York
December 23, 2024

IMPORTANT TAX INFORMATION (Unaudited)

For federal tax purposes, the fund hereby reports 83.75% of the ordinary dividends paid during the fiscal year ended October 31, 2024 as qualifying for the corporate dividends received deduction. Also, certain dividends paid by the fund may be subject to a maximum tax rate of 15%, as provided for by the Jobs and Growth Tax Relief Reconciliation Act of 2003. Of the distributions paid during the fiscal year, \$15,583,018 represents the maximum amount that may be considered qualified dividend income. Shareholders will receive notification in early 2025 of the percentage applicable to the preparation of their 2024 income tax returns. The fund also hereby reports \$2.2900 per share as a long-term capital gain distribution paid on December 21, 2023.

Item 8. Changes in and Disagreements with Accountants for Open-End Management Investment Companies (Unaudited)

N/A

Item 9. Proxy Disclosures for Open-End Management Investment Companies (Unaudited)

N/A

Item 10. Remuneration Paid to Directors, Officers, and Others of Open-End Management Investment Companies (Unaudited)

Each board member also serves as a board member of other funds in the BNY Mellon Family of Funds complex. Annual retainer fees and attendance fees are allocated to each fund based on net assets. Directors fees paid by the fund are within Item 7. Statement of Operations as Directors' fees and expenses.

Item 11. Statement Regarding Basis for Approval of Investment Advisory Contracts (Unaudited)

N/A

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