



ETF Category Report Non-Traditional: Buffer

As of 3/28/2024

Flows & Product Growth | Structure | Performance
Risk | Composition | Fundamentals

The ETF Action Category Reports present category averages, category breakdown, and ETF level data using the ETF Action Classification System. For more information, please reach out to team@etfaction.com.

ETF Action Category List

Alternative: Absolute Return - Event Driven	Equity: Global Ex-U.S. Large Cap - Value	Equity: U.S. Mid Cap - Growth
Alternative: Absolute Return - Managed Futures	Equity: Global Ex-U.S. Small Mid Cap	Equity: U.S. Mid Cap - Value
Alternative: Absolute Return - Multi-Strategy	Equity: Global Large Cap	Equity: U.S. Small Cap - Blend
Alternative: Specialty - Volatility	Equity: Global Large Cap - Blend	Equity: U.S. Small Cap - Growth
Asset Allocation: Specialty - Miscellaneous	Equity: Global Large Cap - Growth	Equity: U.S. Small Cap - Value
Asset Allocation: Target Date - 2015	Equity: Global Large Cap - Value	Fixed Income: Municipal - Defined Maturity
Asset Allocation: Target Date - 2020	Equity: Global Small Mid Cap	Fixed Income: Municipal - High Yield
Asset Allocation: Target Date - 2025	Equity: Region - Africa-Middle East	Fixed Income: Municipal - Intermediate
Asset Allocation: Target Date - 2030	Equity: Region - Asia-Pacific	Fixed Income: Municipal - Long
Asset Allocation: Target Date - 2035	Equity: Region - Asia-Pacific Ex-Japan	Fixed Income: Municipal - Short
Asset Allocation: Target Date - 2040	Equity: Region - Country Specific	Fixed Income: Municipal - Single State
Asset Allocation: Target Date - 2045	Equity: Region - Eurozone	Fixed Income: Taxable - Bank Loans
Asset Allocation: Target Date - 2050	Equity: Region - Latin America	Fixed Income: Taxable - Convertible
Asset Allocation: Target Date - 2055	Equity: Sector - Communication Services	Fixed Income: Taxable - Core
Asset Allocation: Target Date - 2060	Equity: Sector - Consumer Discretionary	Fixed Income: Taxable - Core Enhanced
Asset Allocation: Target Date - 2065+	Equity: Sector - Consumer Staples	Fixed Income: Taxable - Corporate
Asset Allocation: Target Date - Retirement	Equity: Sector - Energy	Fixed Income: Taxable - Defined Maturity
Asset Allocation: Target Risk - Aggressive	Equity: Sector - Financials	Fixed Income: Taxable - Emerging
Asset Allocation: Target Risk - Conservative	Equity: Sector - Health Care	Fixed Income: Taxable - Emerging USD
Asset Allocation: Target Risk - Global Macro	Equity: Sector - Industrial	Fixed Income: Taxable - Government Intermediate
Asset Allocation: Target Risk - Growth	Equity: Sector - Materials	Fixed Income: Taxable - Government Long
Asset Allocation: Target Risk - Moderate	Equity: Sector - Real Estate	Fixed Income: Taxable - Government Short
Asset Allocation: Target Risk - Tactical	Equity: Sector - Technology	Fixed Income: Taxable - High Yield
Commodity: Focused - Agriculture	Equity: Sector - Utilities	Fixed Income: Taxable - Inflation Protected
Commodity: Focused - Energy	Equity: Thematic - Disruptive Tech	Fixed Income: Taxable - International
Commodity: Focused - Industrial Metals	Equity: Thematic - Evolving Consumer	Fixed Income: Taxable - International USD
Commodity: Focused - Precious Metals	Equity: Thematic - FinTech	Fixed Income: Taxable - Long-Term
Commodity: Multi-Sector - Broad Market	Equity: Thematic - Health Innovation	Fixed Income: Taxable - Multisector
Commodity: Specialty - Carbon Credits	Equity: Thematic - Industrial Revolution	Fixed Income: Taxable - Preferred Stock
Commodity: Specialty - Shipping Freight	Equity: Thematic - Infrastructure	Fixed Income: Taxable - Securitized
Cryptocurrency	Equity: Thematic - Midstream & MLPs	Fixed Income: Taxable - Short-Term
Currency	Equity: Thematic - Miscellaneous	Fixed Income: Taxable - Ultrashort
Equity: Dev Ex-U.S. Large Cap - Blend	Equity: Thematic - Multi-Sector	Non-Traditional: Buffer
Equity: Dev Ex-U.S. Large Cap - Growth	Equity: Thematic - Natural Resources	Non-Traditional: Interest Rate Volatility
Equity: Dev Ex-U.S. Large Cap - Value	Equity: Thematic - Precious Metals	Non-Traditional: Leverage Inverse
Equity: Dev Ex-U.S. Small Mid Cap	Equity: Thematic - Sustainability	Non-Traditional: Long Short
Equity: Emerging Large Cap	Equity: U.S. Large Cap - Blend	Non-Traditional: Option Overlay
Equity: Emerging Small Mid Cap	Equity: U.S. Large Cap - Growth	Non-Traditional: Synthetic Income
Equity: Global Ex-U.S. Large Cap - Blend	Equity: U.S. Large Cap - Value	
Equity: Global Ex-U.S. Large Cap - Growth	Equity: U.S. Mid Cap - Blend	

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Overview & Structure

Category: Non-Traditional: Buffer

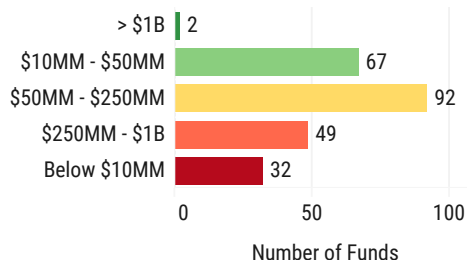


As of 3/31/2024

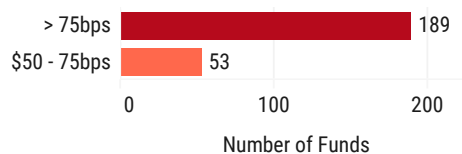
Fund Count	Assets Under Management	Average Expense Ratio	Average Lifespan	Average TTM Yield	Average Spread (%)	Average ADV (\$)
229	\$43.0B	0.80%	2.73 Years	0.42%	0.24%	\$1.44M

Breakdown of Category Universe Ratings

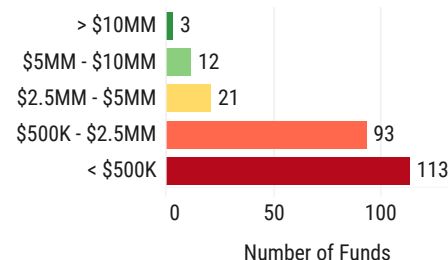
Assets Under Management



Expense Ratio



Liquidity (\$ ADV)



Top 10 Funds by Market Share

Ticker	Name	Inception	AUM	Expense Ratio	Distribution Yield (TTM)	Average Spread	ADV
BUFR	FT Cboe Vest Fund of Buffer ETFs	8/10/2020	\$3,735.64M	1.05%	0.00%	0.04%	\$32.04M
PJAN	Innovator U.S. Equity Power Buffer ETF - January	1/2/2019	\$1,210.15M	0.79%	0.00%	0.07%	\$5.57M
PDEC	Innovator U.S. Equity Power Buffer ETF - December	12/2/2019	\$846.76M	0.79%	0.00%	0.06%	\$1.51M
PFEB	Innovator U.S. Equity Power Buffer ETF - February	2/3/2020	\$841.16M	0.79%	0.00%	0.14%	\$13.57M
PAUG	Innovator U.S. Equity Power Buffer ETF - August	8/1/2019	\$830.77M	0.79%	1.22%	0.07%	\$5.92M
PJUL	Innovator U.S. Equity Power Buffer ETF - July	8/8/2018	\$828.18M	0.79%	0.77%	0.15%	\$4.99M
BUFD	FT Vest Fund of Deep Buffer ETFs	1/20/2021	\$809.27M	1.05%	0.00%	0.25%	\$4.70M
PNOV	Innovator U.S. Equity Power Buffer ETF - November	11/1/2019	\$787.75M	0.79%	0.00%	0.09%	\$1.14M
FFEB	FT Vest U.S. Equity Buffer Fund - February	2/21/2020	\$773.78M	0.85%	0.00%	0.10%	\$7.22M
FJUL	FT Vest U.S. Equity Buffer ETF - July	7/17/2020	\$750.77M	0.85%	0.00%	0.15%	\$6.26M

Top 10 Funds by Greatest Average Daily Traded Value (ADV)

Ticker	Name	Inception	AUM	Expense Ratio	Distribution Yield (TTM)	Average Spread	ADV
BUFR	FT Cboe Vest Fund of Buffer ETFs	8/10/2020	\$3,735.64M	1.05%	0.00%	0.04%	\$32.04M
PFEB	Innovator U.S. Equity Power Buffer ETF - February	2/3/2020	\$841.16M	0.79%	0.00%	0.14%	\$13.57M
BUFC	AB Conservative Buffer ETF	12/13/2023	\$503.31M	0.69%	0.00%	0.27%	\$10.60M
PMAR	Innovator U.S. Equity Power Buffer ETF - March	3/2/2020	\$706.87M	0.79%	0.00%	0.10%	\$9.87M
FJUN	FT Vest U.S. Equity Buffer ETF - June	6/19/2020	\$607.85M	0.85%	0.00%	0.14%	\$8.10M
GFEB	FT Vest US Equity Moderate Buffer ETF February	2/17/2023	\$394.45M	0.85%	0.00%	0.20%	\$7.36M
FFEB	FT Vest U.S. Equity Buffer Fund - February	2/21/2020	\$773.78M	0.85%	0.00%	0.10%	\$7.22M
FJAN	FT Vest US Equity Buffer ETF - January	1/15/2021	\$735.63M	0.85%	0.00%	0.13%	\$6.60M
FJUL	FT Vest U.S. Equity Buffer ETF - July	7/17/2020	\$750.77M	0.85%	0.00%	0.15%	\$6.26M
PAUG	Innovator U.S. Equity Power Buffer ETF - August	8/1/2019	\$830.77M	0.79%	1.22%	0.07%	\$5.92M

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Flows & Category Growth

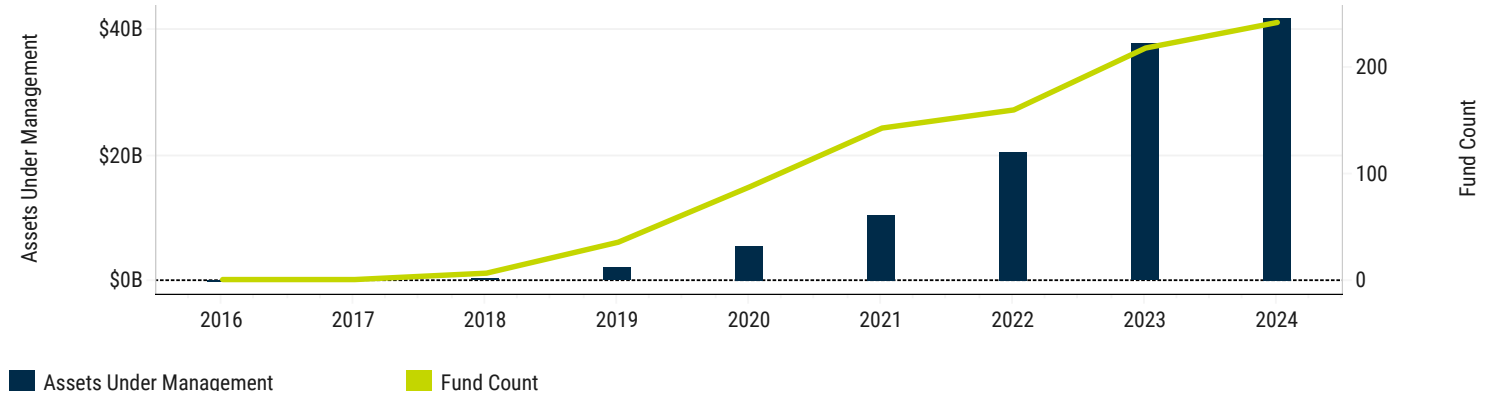
Category: Non-Traditional: Buffer



As of 3/31/2024

Fund Count	Assets Under Management	1 Month Flows	3 Month Flows	Year To Date Flows	1 Year Flows	3 Year Flows	5 Year Flows
229	\$43.0B	\$0.90B	\$3.27B	\$3.30B	\$13.76B	\$30.53B	\$35.40B

Category Growth



Top 10 Funds by 1 Month Flows

Ticker	Name	Inception	AUM	1 Month	3 Month	Year To Date	1 Year	3 Year	5 Year
PMAR	Innovator U.S. Equity Power Buffer ETF - March	3/2/2020	\$706.87M	\$359.2M	\$308.9M	\$308.9M	\$202.1M	\$503.6M	\$618.9M
BUFR	FT Cboe Vest Fund of Buffer ETFs	8/10/2020	\$3,735.64M	\$254.8M	\$660.3M	\$660.3M	\$2,407.7M	\$3,178.4M	\$3,302.4M
FMAR	FT Vest US Equity Buffer ETF - March	3/19/2021	\$631.26M	\$183.6M	\$216.8M	\$215.9M	\$326.0M	\$532.6M	\$568.3M
GMAR	FT Vest U.S. Equity Moderate Buffer ETF - March	3/20/2023	\$251.08M	\$175.7M	\$173.2M	\$173.2M	\$180.6M	\$236.5M	\$236.5M
MARW	AllianzIM U.S. Large Cap Buffer20 Mar ETF	2/28/2023	\$193.08M	\$168.4M	\$166.3M	\$166.3M	\$160.2M	\$182.8M	\$182.8M
FJUL	FT Vest U.S. Equity Buffer ETF - July	7/17/2020	\$750.77M	\$157.3M	\$78.1M	\$77.0M	\$421.8M	\$620.9M	\$641.5M
QMAR	FT Vest Nasdaq-100 Buffer ETF - March	3/19/2021	\$371.03M	\$152.4M	\$143.5M	\$173.0M	\$234.7M	\$322.1M	\$331.2M
DMAR	FT Vest US Equity Deep Buffer ETF - March	3/19/2021	\$279.78M	\$112.5M	\$72.2M	\$72.2M	\$49.5M	\$215.8M	\$257.3M
UMAR	Innovator U.S. Equity Ultra Buffer ETF - March	3/2/2020	\$136.24M	\$96.6M	\$91.8M	\$91.8M	\$34.2M	\$93.2M	\$122.8M
MART	AllianzIM U.S. Large Cap Buffer10 Mar ETF	2/28/2023	\$99.06M	\$88.7M	\$88.7M	\$88.7M	\$88.6M	\$91.1M	\$91.1M

Bottom 10 Funds by 1 Month Flows

Ticker	Name	Inception	AUM	1 Month	3 Month	Year To Date	1 Year	3 Year	5 Year
PAUG	Innovator U.S. Equity Power Buffer ETF - August	8/1/2019	\$830.77M	(\$118.7M)	(\$214.5M)	(\$210.4M)	\$189.4M	\$575.9M	\$669.2M
BJUL	Innovator U.S. Equity Buffer ETF - July	8/29/2018	\$192.62M	(\$89.1M)	(\$195.6M)	(\$195.6M)	(\$17.1M)	\$52.1M	\$97.1M
DJUL	FT Vest U.S. Equity Deep Buffer ETF - July	7/17/2020	\$344.37M	(\$75.6M)	(\$129.8M)	(\$129.8M)	\$140.2M	\$270.5M	\$281.0M
UAUG	Innovator U.S. Equity Ultra Buffer ETF - August	7/31/2019	\$246.49M	(\$64.4M)	(\$234.7M)	(\$235.5M)	\$81.0M	\$167.7M	\$187.6M
FJUN	FT Vest U.S. Equity Buffer ETF - June	6/19/2020	\$607.85M	(\$63.7M)	(\$93.3M)	(\$93.3M)	\$224.7M	\$420.5M	\$467.8M
GOCT	FT Vest U.S. Equity Moderate Buffer ETF - Octob..	10/20/2023	\$101.24M	(\$63.6M)	(\$99.8M)	(\$99.8M)	\$86.0M	\$86.0M	\$86.0M
JULT	AllianzIM U.S. Large Cap Buffer10 Jul ETF	6/30/2020	\$35.87M	(\$62.1M)	(\$71.5M)	(\$71.5M)	(\$35.7M)	\$0.9M	\$15.9M
PJUL	Innovator U.S. Equity Power Buffer ETF - July	8/8/2018	\$828.18M	(\$55.5M)	(\$298.0M)	(\$280.0M)	\$233.5M	\$574.4M	\$606.0M
QDEC	FT Vest Nasdaq-100 Buffer ETF - December	12/18/2020	\$394.16M	(\$54.2M)	\$99.3M	\$89.9M	\$237.3M	\$272.8M	\$348.3M
DJAN	FT Vest US Equity Deep Buffer ETF - January	1/15/2021	\$270.65M	(\$52.1M)	\$98.1M	\$98.1M	\$34.5M	\$142.9M	\$235.4M

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Category Performance

Category: Non-Traditional: Buffer



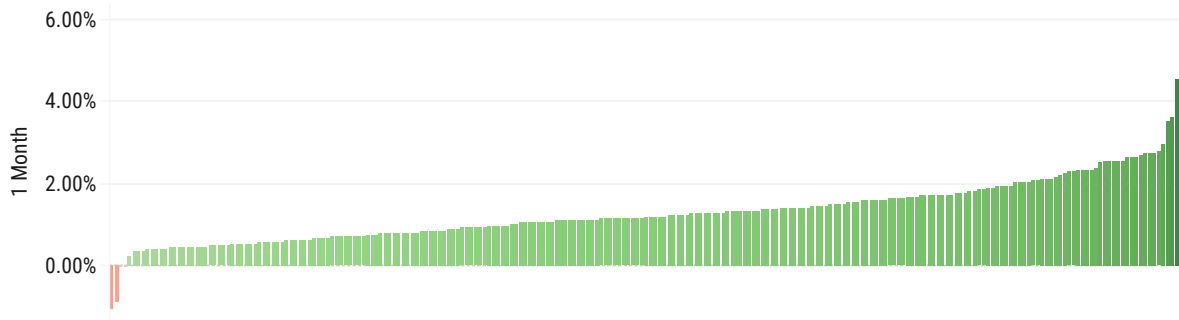
As of 3/31/2024

Fund Count	Average 1 Month Return	Average 3 Month Return	Average YTD Return	Average 1 Year Return	Average 3 Year Return**	Average 5 Year Return**	Average 10 Year Return**
229	1.32%	3.91%	3.91%	12.86%	2.86%	0.34%	0.00%

Breakdown of Category Performance

**Annualized

1 Month Returns



Advancers*	Top 1 Month Return
236	6.02%
Decliners*	Bottom 1 Month Return
2	-1.03%

Top 10 Performers: 1 Month

Ticker	Name	Inception	AUM	1 Month	3 Month	YTD	1 Year	3 Year*	5 Year*
BGLD	FT Vest Gold Strategy Quarterly Buffer ETF	1/20/2021	\$22.53M	6.02%	4.73%	4.73%	12.14%	8.46%	
KAPR	Innovator U.S. Small Cap Power Buffer ETF - April	4/1/2020	\$119.00M	4.74%	6.81%	6.81%	17.94%	4.87%	
XUSP	Innovator Uncapped Accelerated U.S. Equity ETF	8/10/2022	\$19.32M	4.53%	14.49%	14.49%	38.09%		
IAPR	Innovator International Developed Power Buffer ETF - ..	4/1/2021	\$209.58M	3.62%	5.56%	5.56%	10.96%	0.00%	
SFLR	Innovator Equity Managed Floor ETF	11/9/2022	\$169.94M	3.51%	9.91%	9.91%	26.62%		
YJUN	FT Vest International Equity Buffer ETF - June	6/18/2021	\$166.41M	2.97%	4.33%	4.33%	12.98%		
IJUL	Innovator International Developed Power Buffer ETF - J..	7/1/2019	\$169.76M	2.79%	4.01%	4.01%	12.43%	5.10%	
YMAR	FT Vest International Equity Moderate Buffer	3/19/2021	\$69.54M	2.75%	4.84%	4.84%	13.36%	4.79%	
ISEP	Innovator International Developed Power Buffer ETF - ..	9/1/2023	\$49.55M	2.73%	4.17%	4.17%			
YSEP	FT Vest International Equity Buffer ETF - September	9/17/2021	\$36.80M	2.72%	4.12%	4.12%	13.43%		

Bottom 10 Performers: 1 Month

Ticker	Name	Inception	AUM	1 Month	3 Month	YTD	1 Year	3 Year*	5 Year*
TFJL	Innovator 20+ Year Treasury Bond 5 Floor ETF - July	8/18/2020	\$14.33M	-1.03%	-4.75%	-4.75%	-1.46%	-4.74%	
TSLH	Innovator Hedged TSLA Strategy ETF	7/26/2022	\$0.93M	-0.86%	-8.60%	-8.60%	-2.15%		
MRCP	PGIM US Large-Cap Buffer 12 ETF - March	2/29/2024	\$3.06M	0.00%					
SIXP	AllianzIM U.S. Large Cap 6 Month Buffer10 Mar/Sep ETF	2/29/2024	\$24.18M	0.00%					
APRQ	Innovator Premium Income 40 Barrier ETF - April	4/3/2023	\$22.68M	0.25%	0.92%	0.92%			
JANQ	Innovator Premium Income 40 Barrier ETF - January	1/2/2024	\$14.14M	0.36%					
APRJ	Innovator Premium Income 30 Barrier ETF - April	4/3/2023	\$39.23M	0.38%	1.44%	1.44%			
OCTQ	Innovator Premium Income 40 Barrier ETF - October	10/2/2023	\$11.98M	0.39%	1.22%	1.22%			
APRD	Innovator Premium Income 10 Barrier ETF - April	4/3/2023	\$7.97M	0.40%	1.31%	1.31%			
QTAP	Innovator Growth Accelerated Plus ETF - April	3/31/2021	\$9.79M	0.40%	2.00%	2.00%	24.14%	0.00%	

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3 Year Risk Metrics

Category: Non-Traditional: Buffer



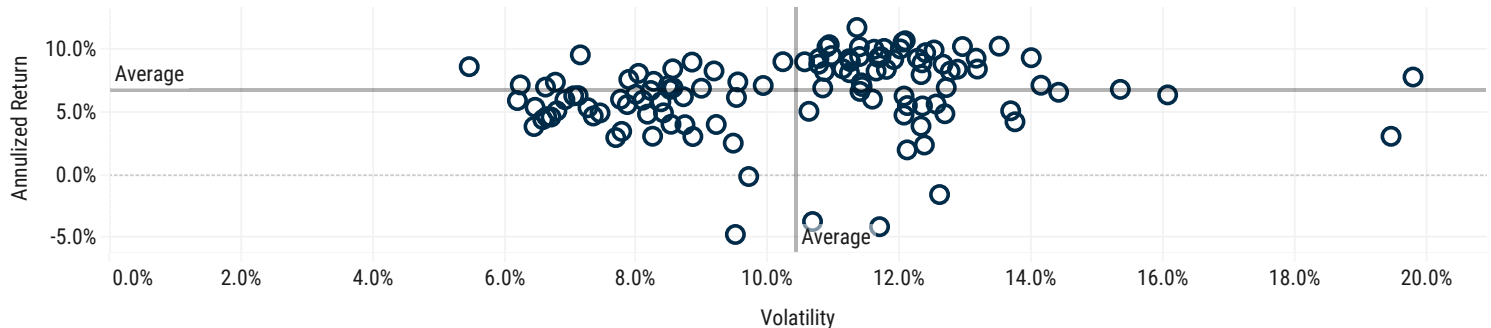
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Fund Count	Average Return	Average Volatility	Average Correlation	Average Sharpe Ratio	Average Sortino Ratio	Average Beta	Average Alpha	Average Up Capture	Average Down Capture
229	6.62%	10.42%	0.90	0.64	1.07	0.54	0.37%	53.32%	51.42%

Breakdown of Category Risk

Risk Benchmark: Variable

3 Year Risk-Return Scatterplot



Top 10 Funds by Sharpe Ratio (3 Year)

Risk Benchmark: Variable

Ticker	Name	AUM	Annualized Return	Volatility	Correlation (SPY)	Sharpe Ratio	Beta	Alpha	Up Capture	Down Capture
OCTW	AllianzIM U.S. Large Cap Buffer20 Oct ETF	\$134.6M	8.6%	5.5%	86.0%	1.52	0.27	5.2%	36.5%	16.6%
POCT	Innovator U.S. Equity Power Buffer ETF - ...	\$729.6M	9.6%	7.1%	90.8%	1.28	0.37	4.9%	45.5%	26.3%
UOCT	Innovator U.S. Equity Ultra Buffer ETF - Oc..	\$94.9M	7.2%	6.2%	88.8%	1.12	0.31	3.3%	37.2%	24.3%
JULW	AllianzIM U.S. Large Cap Buffer20 Jul ETF	\$153.4M	7.4%	6.8%	91.7%	1.06	0.35	3.1%	40.9%	28.9%
JANW	AllianzIM U.S. Large Cap Buffer20 Jan ETF	\$406.5M	7.0%	6.6%	90.0%	1.03	0.34	2.9%	37.8%	26.0%
PSFD	Pacer Swan SOS Flex (January) ETF	\$43.5M	11.7%	11.3%	94.8%	0.98	0.61	4.3%	67.4%	50.2%
PJUL	Innovator U.S. Equity Power Buffer ETF - J..	\$828.2M	9.0%	8.8%	92.2%	0.98	0.46	3.3%	52.0%	38.8%
PSMD	Pacer Swan SOS Moderate (January) ETF	\$79.9M	8.1%	8.0%	83.4%	0.97	0.38	3.5%	45.1%	32.3%
PSFF	Pacer Swan SOS Fund of Funds ETF	\$295.6M	8.5%	8.5%	95.6%	0.95	0.46	2.8%	50.5%	38.9%
UJAN	Innovator U.S. Equity Ultra Buffer ETF - Ja..	\$202.1M	5.9%	6.2%	83.5%	0.94	0.29	2.4%	34.1%	25.2%

Top 10 Funds by Greatest Alpha (3 Year)

Risk Benchmark: Variable

Ticker	Name	AUM	Annualized Return	Volatility	Correlation (SPY)	Sharpe Ratio	Beta	Alpha	Up Capture	Down Capture
BGLD	FT Vest Gold Strategy Quarterly Buffer ETF	\$22.5M	8.4%	11.8%	12.3%	0.69	0.08	7.8%	23.2%	-3.0%
OCTW	AllianzIM U.S. Large Cap Buffer20 Oct ETF	\$134.6M	8.6%	5.5%	86.0%	1.52	0.27	5.2%	36.5%	16.6%
POCT	Innovator U.S. Equity Power Buffer ETF - O..	\$729.6M	9.6%	7.1%	90.8%	1.28	0.37	4.9%	45.5%	26.3%
PSFD	Pacer Swan SOS Flex (January) ETF	\$43.5M	11.7%	11.3%	94.8%	0.98	0.61	4.3%	67.4%	50.2%
PSMD	Pacer Swan SOS Moderate (January) ETF	\$79.9M	8.1%	8.0%	83.4%	0.97	0.38	3.5%	45.1%	32.3%
PJUL	Innovator U.S. Equity Power Buffer ETF - J..	\$828.2M	9.0%	8.8%	92.2%	0.98	0.46	3.3%	52.0%	38.8%
FJAN	FT Vest US Equity Buffer ETF - January	\$735.6M	10.2%	10.9%	92.6%	0.90	0.57	3.3%	61.3%	47.7%
UOCT	Innovator U.S. Equity Ultra Buffer ETF - Oct..	\$94.9M	7.2%	6.2%	88.8%	1.12	0.31	3.3%	37.2%	24.3%
FJUN	FT Vest U.S. Equity Buffer ETF - June	\$607.8M	10.4%	10.9%	95.0%	0.91	0.59	3.3%	65.0%	52.4%
JULW	AllianzIM U.S. Large Cap Buffer20 Jul ETF	\$153.4M	7.4%	6.8%	91.7%	1.06	0.35	3.1%	40.9%	28.9%

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Appendix: Category Funds



As of 3/31/2024

Appendix: Top Category Funds 1-50 By AUM

Ticker	Name	Inception	AUM	1 Month	3 Month	YTD	1 Year	3 Year*	5 Year*
BUFR	FT Cboe Vest Fund of Buffer ETFs	8/10/2020	\$3,736M	1.49%	5.23%	5.23%	20.73%	8.07%	
PJAN	Innovator U.S. Equity Power Buffer ETF - January	1/2/2019	\$1,210M	1.40%	5.02%	5.02%	18.89%	7.56%	7.73%
PDEC	Innovator U.S. Equity Power Buffer ETF - December	12/2/2019	\$847M	1.15%	4.27%	4.27%	17.98%	7.10%	
PFEB	Innovator U.S. Equity Power Buffer ETF - February	2/3/2020	\$841M	1.24%	4.62%	4.62%	18.04%	7.51%	
PAUG	Innovator U.S. Equity Power Buffer ETF - August	8/1/2019	\$831M	1.73%	6.02%	6.02%	21.12%	6.97%	
PJUL	Innovator U.S. Equity Power Buffer ETF - July	8/8/2018	\$828M	1.17%	4.95%	4.95%	21.73%	9.04%	8.54%
BUFD	FT Vest Fund of Deep Buffer ETFs	1/20/2021	\$809M	0.94%	3.92%	3.92%	17.06%	5.09%	
PNOV	Innovator U.S. Equity Power Buffer ETF - November	11/1/2019	\$788M	0.82%	3.22%	3.22%	13.12%	6.25%	
FFEB	FT Vest U.S. Equity Buffer Fund - February	2/21/2020	\$774M	1.92%	6.10%	6.10%	22.66%	9.55%	
FJUL	FT Vest U.S. Equity Buffer ETF - July	7/17/2020	\$751M	1.93%	6.80%	6.80%	24.67%	9.43%	
FDEC	FT Vest US Equity Buffer ETF - December	12/18/2020	\$746M	1.40%	5.69%	5.69%	24.16%	9.02%	
FJAN	FT Vest US Equity Buffer ETF - January	1/15/2021	\$736M	1.47%	5.40%	5.40%	21.79%	10.32%	
POCT	Innovator U.S. Equity Power Buffer ETF - October	10/1/2018	\$730M	0.89%	3.79%	3.79%	19.59%	9.62%	9.41%
PSEP	Innovator U.S. Equity Power Buffer ETF - September	9/3/2019	\$718M	1.33%	5.00%	5.00%	20.46%	8.35%	
PMAR	Innovator U.S. Equity Power Buffer ETF - March	3/2/2020	\$707M	1.60%	3.34%	3.34%	15.61%	7.63%	
FMAR	FT Vest US Equity Buffer ETF - March	3/19/2021	\$631M	2.03%	3.94%	3.94%	18.12%	9.31%	
FAUG	FT Vest U.S. Equity Buffer ETF - August	11/6/2019	\$608M	1.43%	5.54%	5.54%	19.17%	6.14%	
FJUN	FT Vest U.S. Equity Buffer ETF - June	6/19/2020	\$608M	1.86%	6.50%	6.50%	24.97%	10.34%	
FNOV	FT Vest U.S. Equity Buffer ETF - November	11/15/2019	\$599M	1.40%	5.23%	5.23%	21.05%	7.05%	
BALT	Innovator Defined Wealth Shield ETF	7/1/2021	\$585M	0.62%	2.42%	2.42%	7.53%		
FMAY	FT Vest U.S. Equity Buffer Fund - May	5/15/2020	\$544M	1.00%	4.30%	4.30%	19.00%	7.10%	
FOCT	FT Vest U.S. Equity Buffer ETF - October	10/16/2020	\$524M	1.05%	4.32%	4.32%	17.73%	7.46%	
PAPR	Innovator U.S. Equity Power Buffer ETF - April	4/1/2019	\$512M	0.48%	2.75%	2.75%	14.21%	6.86%	0.00%
BUFC	AB Conservative Buffer ETF	12/13/2023	\$503M	1.33%	3.28%	3.28%			
BUFQ	FT Vest Fund of Nasdaq-100 Buffer ETFs	6/15/2022	\$502M	1.14%	4.93%	4.93%	25.10%		
FSEP	FT Vest U.S. Equity Buffer ETF - September	9/18/2020	\$500M	1.47%	5.60%	5.60%	22.07%	8.57%	
PJUN	Innovator U.S. Equity Power Buffer ETF - June	6/3/2019	\$463M	0.64%	3.42%	3.42%	13.26%	4.06%	
FAPR	FT Vest U.S. Equity Buffer ETF - April	4/16/2021	\$458M	0.82%	4.25%	4.25%	18.69%		
KJAN	Innovator U.S. Small Cap Power Buffer ETF - January	1/1/2020	\$443M	2.25%	3.09%	3.09%	16.19%	5.50%	
PMAY	Innovator U.S. Equity Power Buffer ETF - May	5/1/2020	\$433M	0.64%	3.16%	3.16%	13.69%	4.07%	
JANW	AllianzIM U.S. Large Cap Buffer20 Jan ETF	12/31/2020	\$406M	1.24%	3.75%	3.75%	14.94%	7.11%	
BUFF	Innovator Laddered Allocation Power Buffer ETF	10/20/2016	\$406M	1.14%	4.14%	4.14%	17.31%	6.99%	5.25%
GFEB	FT Vest US Equity Moderate Buffer ETF February	2/17/2023	\$394M	1.65%	4.25%	4.25%	17.82%		
QDEC	FT Vest Nasdaq-100 Buffer ETF - December	12/18/2020	\$394M	0.79%	5.01%	5.01%	21.08%	7.14%	
XDEC	FT Vest U.S. Equity Enhance & Moderate Buffer ETF - December	12/17/2021	\$386M	0.94%	3.61%	3.61%	13.89%		
QMAR	FT Vest Nasdaq-100 Buffer ETF - March	3/19/2021	\$371M	1.96%	3.39%	3.39%	21.28%	9.41%	
DJUL	FT Vest U.S. Equity Deep Buffer ETF - July	7/17/2020	\$344M	1.60%	5.97%	5.97%	21.26%	6.29%	
DDEC	FT Vest US Equity Deep Buffer ETF - December	12/18/2020	\$339M	1.37%	4.80%	4.80%	18.36%	6.38%	
DAUG	FT Vest U.S. Equity Deep Buffer ETF - August	11/6/2019	\$322M	1.12%	4.43%	4.43%	16.46%	3.13%	
QJUN	FT Vest Nasdaq-100 Buffer ETF - June	6/18/2021	\$322M	1.19%	5.89%	5.89%	27.32%		
PSFF	Pacer Swan SOS Fund of Funds ETF	12/29/2020	\$296M	1.12%	4.37%	4.37%	18.80%	8.57%	
DFEB	FT Vest U.S. Equity Deep Buffer ETF - February	2/21/2020	\$284M	1.66%	4.32%	4.32%	17.31%	5.64%	
GJAN	FT Vest U.S. Equity Moderate Buffer ETF - Jan	1/20/2023	\$283M	1.18%	4.06%	4.06%	17.18%		
DMAR	FT Vest US Equity Deep Buffer ETF - March	3/19/2021	\$280M	1.73%	3.09%	3.09%	13.75%	5.20%	
NJAN	Innovator Growth-100 Power Buffer ETF - January	1/1/2020	\$276M	0.72%	4.53%	4.53%	15.84%	4.20%	
QSPT	FT Vest Nasdaq-100 Buffer ETF - September	9/17/2021	\$271M	0.97%	4.79%	4.79%	31.76%		
DJAN	FT Vest US Equity Deep Buffer ETF - January	1/15/2021	\$271M	1.46%	4.22%	4.22%	16.99%	5.46%	
DNOV	FT Vest U.S. Equity Deep Buffer ETF - November	11/15/2019	\$268M	1.22%	4.32%	4.32%	19.62%	5.93%	
GJUL	FT Vest U.S. Equity Moderate Buffer ETF - July	7/21/2023	\$267M	1.55%	5.57%	5.57%			
BJAN	Innovator U.S. Equity Buffer ETF - January	1/2/2019	\$263M	1.68%	6.57%	6.57%	25.61%	8.43%	10.40%

*Annualized performance. Returns based on market price.

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Appendix: Category Funds



As of 3/31/2024

Appendix: Top Category Funds 51-100 By AUM

Ticker	Name	Inception	AUM	1 Month	3 Month	YTD	1 Year	3 Year*	5 Year*
GMAR	FT Vest U.S. Equity Moderate Buffer ETF - March	3/20/2023	\$251M	1.56%	3.04%	3.04%	14.35%		
UAUG	Innovator U.S. Equity Ultra Buffer ETF - August	7/31/2019	\$246M	1.78%	6.21%	6.21%	22.31%	4.99%	
TJUL	Innovator Equity Defined Protection ETF - 2 Yr to July 2025	7/18/2023	\$236M	0.86%	2.49%	2.49%			
BFEB	Innovator U.S. Equity Buffer ETF - February	2/3/2020	\$222M	1.79%	7.23%	7.23%	24.46%	10.64%	
FEBW	AllianzIM U.S. Large Cap Buffer20 Feb ETF	1/31/2023	\$213M	1.35%	4.10%	4.10%	15.58%		
XJUN	FT Vest U.S. Equity Enhance & Moderate Buffer ETF - June	7/12/2021	\$213M	0.72%	3.07%	3.07%	13.44%		
IAPR	Innovator International Developed Power Buffer ETF - April	4/1/2021	\$210M	3.62%	5.56%	5.56%	10.96%	0.00%	
IJAN	Innovator International Developed Power Buffer ETF - January	12/31/2019	\$209M	2.04%	2.91%	2.91%	11.37%	6.23%	
GJUN	FT Vest U.S. Equity Moderate Buffer ETF - June	6/20/2023	\$203M	1.24%	4.93%	4.93%			
UJAN	Innovator U.S. Equity Ultra Buffer ETF - January	1/2/2019	\$202M	1.35%	4.86%	4.86%	17.25%	5.93%	6.27%
BUFG	FT Vest Buffered Allocation Growth ETF	10/26/2021	\$201M	1.72%	5.83%	5.83%	20.04%		
GDEC	FT Vest U.S. Equity Moderate Buffer ETF - December	12/18/2023	\$197M	1.10%	4.30%	4.30%			
NJUL	Innovator Growth-100 Power Buffer ETF - July	7/1/2020	\$195M	0.93%	4.62%	4.62%	22.14%	8.33%	
MARW	AllianzIM U.S. Large Cap Buffer20 Mar ETF	2/28/2023	\$193M	1.41%	2.77%	2.77%	13.49%		
BJUL	Innovator U.S. Equity Buffer ETF - July	8/29/2018	\$193M	2.08%	7.18%	7.18%	25.45%	9.22%	9.68%
BMAR	Innovator U.S. Equity Buffer ETF - March	3/2/2020	\$186M	2.29%	5.19%	5.19%	21.51%	10.34%	
DJUN	FT Vest U.S. Equity Deep Buffer ETF - June	6/19/2020	\$185M	1.25%	5.35%	5.35%	18.94%	6.72%	
DSEP	FT Vest U.S. Equity Deep Buffer ETF - September	9/18/2020	\$184M	1.29%	4.81%	4.81%	20.66%	6.42%	
DOCT	FT Vest U.S. Equity Deep Buffer ETF - October	10/16/2020	\$183M	0.81%	3.47%	3.47%	15.86%	6.08%	
BAUG	Innovator U.S. Equity Buffer ETF - August	8/1/2019	\$183M	2.56%	8.04%	8.04%	24.93%	8.09%	
BOCT	Innovator U.S. Equity Buffer ETF - October	10/1/2018	\$178M	1.35%	5.20%	5.20%	21.70%	9.18%	10.90%
XMAR	FT Vest U.S. Equity Enhance & Moderate Buffer ETF - March	3/17/2023	\$177M	1.20%	2.25%	2.25%	11.75%		
DAPR	FT Vest U.S. Equity Deep Buffer ETF - April	4/16/2021	\$174M	0.47%	2.84%	2.84%	12.85%		
GNOV	FT Vest U.S. Equity Moderate Buffer ETF - November	11/17/2023	\$172M	1.18%	3.99%	3.99%			
SFLR	Innovator Equity Managed Floor ETF	11/9/2022	\$170M	3.51%	9.91%	9.91%	26.62%		
IJUL	Innovator International Developed Power Buffer ETF - July	7/1/2019	\$170M	2.79%	4.01%	4.01%	12.43%	5.10%	
YJUN	FT Vest International Equity Buffer ETF - June	6/18/2021	\$166M	2.97%	4.33%	4.33%	12.98%		
NOCT	Innovator Growth-100 Power Buffer ETF - October	10/1/2019	\$166M	0.64%	3.87%	3.87%	22.72%	9.02%	
BSEP	Innovator U.S. Equity Buffer ETF - September	9/3/2019	\$162M	1.96%	7.09%	7.09%	24.30%	8.91%	
EJAN	Innovator Emerging Markets Power Buffer ETF January	1/1/2020	\$155M	1.72%	0.94%	0.94%	3.39%	-1.31%	
BAPR	Innovator U.S. Equity Buffer ETF - April	4/1/2019	\$154M	0.83%	4.78%	4.78%	21.63%	10.06%	0.00%
JULW	AllianzIM U.S. Large Cap Buffer20 Jul ETF	6/30/2020	\$153M	1.13%	4.52%	4.52%	17.27%	7.42%	
KJUL	Innovator U.S. Small Cap Power Buffer ETF - July	7/1/2020	\$153M	2.37%	3.68%	3.68%	14.70%	2.08%	
BDEC	Innovator U.S. Equity Buffer ETF - December	12/1/2019	\$151M	1.58%	6.15%	6.15%	21.90%	8.60%	
DMAY	FT Vest U.S. Equity Deep Buffer ETF - May	5/15/2020	\$150M	0.72%	3.23%	3.23%	16.27%	4.04%	
AUGW	AllianzIM U.S. Large Cap Buffer20 Aug ETF	7/31/2023	\$143M	1.42%	4.95%	4.95%			
UMAR	Innovator U.S. Equity Ultra Buffer ETF - March	3/2/2020	\$136M	1.84%	3.35%	3.35%	14.96%	4.69%	
OCTW	AllianzIM U.S. Large Cap Buffer20 Oct ETF	9/30/2020	\$135M	0.95%	3.48%	3.48%	17.10%	8.66%	
XSEP	FT Vest U.S. Equity Enhance & Moderate Buffer ETF - September	9/21/2022	\$133M	0.81%	3.22%	3.22%	15.15%		
JANT	AllianzIM U.S. Large Cap Buffer10 Jan ETF	12/31/2020	\$125M	1.69%	6.05%	6.05%	24.39%	8.31%	
GSEP	FT Vest U.S. Equity Moderate Buffer ETF - September	9/15/2023	\$124M	1.18%	4.44%	4.44%			
KAPR	Innovator U.S. Small Cap Power Buffer ETF - April	4/1/2020	\$119M	4.74%	6.81%	6.81%	17.94%	4.87%	
IOCT	Innovator International Developed Power Buffer ETF - October	10/1/2021	\$116M	2.06%	3.51%	3.51%	15.26%		
BMAY	Innovator U.S. Equity Buffer ETF - May	5/1/2020	\$109M	0.97%	5.13%	5.13%	18.88%	5.53%	
BNOV	Innovator U.S. Equity Buffer ETF - November	11/1/2019	\$108M	1.14%	4.51%	4.51%	17.39%	5.87%	
BUFB	Innovator Laddered Allocation Buffer ETF	2/9/2022	\$106M	1.63%	5.85%	5.85%	21.93%		
NAPR	Innovator Growth-100 Power Buffer ETF - April	4/1/2020	\$106M	0.56%	2.31%	2.31%	17.37%	8.31%	
SIXJ	AllianzIM U.S. Large Cap 6 Month Buffer10 Jan/Jul ETF	12/31/2021	\$105M	1.70%	4.68%	4.68%	18.40%		
GAUG	FT Vest U.S. Equity Moderate Buffer ETF - August	8/18/2023	\$105M	1.13%	4.42%	4.42%			
BUFT	FT Vest Buffered Allocation Defensive ETF	10/26/2021	\$105M	0.66%	2.51%	2.51%	13.44%		

*Annualized performance. Returns based on market price.

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Global equities are equities that span across both developed countries and emerging markets. Investments in international and emerging markets securities include exposure to risks such as currency fluctuations, foreign taxes and regulations, and the potential for illiquid markets and political instability.

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Fixed income securities also carry inflation risk, liquidity risk, call risk and credit and default risks for both issuers and counterparties. The municipal market can be affected by adverse tax, legislative, or political changes, and by the financial condition of the issuers of municipal securities. MBS are subject to prepayment and extension risk; as such, they react differently to changes in interest rates than other bonds. Small movements in interest rates may quickly and significantly reduce the value of certain MBS.

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Alternatives are securities that are typically less or inversely correlated with Equities and Fixed Income such as Index Volatility ETFs. Alternative investments are often non income producing and highly speculative. Therefore, alternative investments should not represent a significant portion of an individual's portfolio.

Dividends are not guaranteed and are subject to change or elimination.

ETFs are subject to substantially the same risks as those associated with the direct ownership of the underlying securities owned by the ETF. Additionally, the value of the investment will fluctuate in response to the performance of the underlying index or securities. ETFs typically charge therefore, investments in ETFs will result in the layering of expenses.

DEFINITIONS:

Acquired Fund Fees is the weighted average of the expense ratios of all model holdings.

Distribution yield refers to the percentage of income a portfolio has distributed to investors over the last 12 months. At the model level, this is calculated as a weighted average of TTM yield for all model holdings. This is based on fund and/or stock distributions, and is not a look-through calculation.

Geometric return is a measure of the compound rate of growth in a portfolio. This method eliminates the distorting effects created by inflows of new money. This is also called the 'geometric mean return,' as the reinvestment is captured by using the geometric total and mean, rather than the arithmetic total and mean. It is assumed that all cash distributions are reinvested in the portfolio and the exact same periods are used for comparisons. The difference between the two return measures is caused by volatility. The more volatile the asset class, the bigger the difference between its geometric and average annual returns. The geometric mean return is typically lower than the arithmetic mean return.

Pure gross returns are calculated before the deduction of advisory fees, trading expenses and other fees. Net of fees performance reflects the deduction of the advisory fees charged to the client, trading expenses, and other costs associated with investments made by the client. Returns do not include the reinvestment of dividends.

Standard deviation is a measure of the dispersion of a set of data from its mean. The more spread apart the data is, the higher the deviation. Calculated using monthly returns.

Alpha refers to the performance differential between a specific investment and that of the investment's beta multiplied by its benchmark. It isolates the portion of total return not accredited to movement in the broader market. Calculated using monthly returns.

Beta is a measure of the volatility—or systematic risk—of a security or portfolio compared to its relative benchmark. Securities with betas higher than 1.0 can be interpreted as more volatile relative to movements in the market benchmark while securities with a beta less than 1.0 can be interpreted as less volatile relative to movements in the market benchmark. Calculated using monthly returns.

The Sharpe ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. Volatility is a measure of the price fluctuations of an asset or portfolio. Calculated using monthly returns.

The correlation coefficient is a statistical measure of the strength of the relationship between the relative movements of two variables. The values range between -1.0 and 1.0. A calculated number greater than 1.0 or less than -1.0 means that there was an error in the correlation measurement. A correlation of -1.0 shows a perfect negative correlation, while a correlation of 1.0 shows a perfect positive correlation. A correlation of 0.0 shows no linear relationship between the movement of the two variables. Calculated using monthly returns.

R-squared (R²) is a statistical measure that represents the proportion of the variance for a dependent variable that's explained by an independent variable or variables in a regression model. Calculated using monthly returns.

Tracking error is the divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark. This is often in the context of a hedge fund, mutual fund, or exchange-traded fund (ETF) that did not work as effectively as intended, creating an unexpected profit or loss. Tracking error is reported as a standard deviation percentage difference, which reports the difference between the return an investor receives and that of the benchmark they were attempting to imitate. Calculated using monthly returns.

The upside capture ratio measures an investment manager's relative performance during bull markets. The ratio is calculated by comparing the manager's returns in up-markets with that of a benchmark. Calculated using monthly returns.

The down-market capture ratio is a statistical measure of an investment manager's overall performance in down-markets. It is used to evaluate how well an investment manager performed relative to an index during periods when that index has dropped. The ratio is calculated by dividing the manager's returns by the returns of the index during the down-market and multiplying that factor by 100. Calculated using monthly returns.

A drawdown refers to how much an investment or trading account is down from the peak before it recovers back to the peak. Drawdowns are typically quoted as a percentage, but dollar terms may also be used if applicable for a specific trader. Drawdowns are a measure of downside volatility. Calculated using monthly returns.

Market capitalization is the sum of the total value of a company's outstanding shares multiplied by the price of one share. With a weighted average market capitalization, components that have a higher market cap have more influence because they constitute a higher percentage in the index; those with smaller caps have less influence.

The Price/Earnings Ratio or P/E Ratio is a valuation metric that assesses how many dollars investors are willing to pay for one dollar of a company's earnings. It's calculated by dividing a stock's price by the company's trailing 12-month earnings per share from continuous operations. Negative P/E ratios are excluded. Calculated using weighted harmonic average.

The forward (or leading) P/E uses future earnings guidance rather than trailing figures. Negative P/E ratios are excluded. Calculated using weighted harmonic average.

The Price/Sale (P/S) ratio is a stock's current price divided by the company's trailing 12-month sales per share. This represents the weighted average of the price/sales ratios of the stocks in a fund's portfolio. Price/sales represents the amount an investor is willing to pay for a dollar generated from a particular company's operations. Calculated using weighted harmonic average.

The forward (or leading) P/S uses future sales estimates rather than trailing figures. Calculated using weighted harmonic average.

The price/book (P/B) ratio of a fund is the weighted average of the price/book ratios of all the stocks in a fund's portfolio. Book value is the total assets of a company, less total liabilities (sometimes referred to as carrying value). A company's book value is calculated by dividing the market price of its outstanding stock by the company's book value, and then adjusting for the number of shares outstanding (Stocks with negative book values are excluded from this calculation.). Calculated using weighted harmonic average.

The price-to-cash flow (P/CF) ratio is a stock valuation indicator or multiple that measures the value of a stock's price relative to its operating cash flow per share over the trailing twelve months. The ratio uses operating cash flow (OCF), which adds back non-cash expenses such as depreciation and amortization to net income. Calculated using weighted harmonic average.

Price to free cash flow is an equity valuation metric used to compare a company's per-share market price to its per-share amount of free cash flow (FCF) over the trailing twelve months. This metric is very similar to the valuation metric of price to cash flow but is considered a more exact measure, owing to the fact that it uses free cash flow, which subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available to fund non-asset-related growth. Negative P/E ratios are excluded. Calculated using weighted harmonic average.

The price/earnings to growth ratio (PEG ratio) is a stock's price-to-earnings (P/E) ratio divided by the growth rate of its earnings for a specified time period (NTM - next twelve months). The PEG ratio is used to determine a stock's value while also factoring in the company's expected earnings growth, and it is thought to provide a more complete picture than the more standard P/E ratio. Calculated using weighted harmonic average.

The dividend yield, expressed as a percentage, is a financial ratio (dividend/price) that shows how much a company pays out in dividends each year relative to its stock price. Unless otherwise stated, dividend yield takes the distributions over the trailing 12 months divided by the price on the as of date. Note that the dividend yield is a look through of all funds and securities to underlying holdings, and may not reflect what the fund or model actually distributes. Calculated using weighted harmonic average.

Gross margin is a ratio that equates to net sales minus the cost of goods sold divided by net sales. The gross margin shows the ratio of profit made before deducting selling, general, and administrative (SG&A) costs. Calculated using weighted average.

The net margin is a measure of profitability. It is equal to annual net income divided by revenues over the trailing 12 months. The resulting figure is then multiplied by 100. Calculated using weighted average.

Return on equity (ROE) is the percentage a company earns on its total equity in a given year. ROE shows how much profit a company generates on the money shareholders have invested in the firm. Calculated using weighted average.

Return on assets (ROA) is the percentage a company earns on its assets in a given year (Year 1, 2, etc.). The calculation is net income divided by end-of-year total assets. The resulting figure is then multiplied by 100. For a mutual fund, ROA represents a weighted median figure such that approximately 50% of the domestic stocks in the portfolio will have a greater ROA and roughly 50% of these domestic stocks will have a lower ROA than the weighted median. Calculated using weighted average.

Return on invested capital (ROIC) is the percentage of money a company earns that is above the average cost it pays for its debt and equity capital. Calculated using weighted average.

The interest coverage ratio is a debt and profitability ratio used to determine how easily a company can pay interest on its outstanding debt. The interest coverage ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) by its interest expense during a given period. Calculated using weighted average.

The debt-to-equity (D/E) ratio is used to evaluate a company's financial leverage and is calculated by dividing a company's total liabilities by its shareholder equity. Calculated using weighted average.

The payout ratio, also known as the dividend payout ratio, shows the percentage of a company's earnings paid out as dividends to shareholders over the trailing twelve months. Calculated using weighted average.

Per share growth metrics calculate the growth metrics over the trailing twelve months (TTM) or estimated growth metrics over the next twelve months (NTM) for Earnings, Sales, Cash Flow, Free Cash Flow, Book Value, and Dividends. Calculated using weighted median.

Long-Term earnings (LT Earnings) calculates the growth in earnings per share over longer time horizons (5 years). Calculated using weighted median.

The coupon rate is calculated by weighting each bond's coupon by its relative size in the portfolio. It indicates whether the underlying fund owns more high- or low-coupon bonds. There can be advantages to holding higher coupon bonds, but many funds buy them simply to tempt investors with a high payout. This can be damaging to investors for two reasons. The first is that higher-coupon bonds often carry greater risk than lower-coupon issues. The second is that when these bonds don't carry extra risk, they are old issues that the fund has paid up for and if the offering doesn't amortize the extra yield, investors are likely to find that their principal erodes over time. Calculated using weighted average.

Effective duration is a measure of a fund's interest-rate sensitivity; the longer a fund's duration, the more sensitive the fund is to shifts in interest rates. Duration is determined by a formula that includes coupon rates and bond maturities. Small coupons tend to increase duration, while shorter maturities and higher coupons shorten duration. The relationship between funds with different durations is straightforward: A fund with a duration of 10 years is twice as volatile as a fund with a five-year duration. Calculated using weighted average.

Modified Duration expresses the measurable change in the value of a security in response to a change in interest rates. Calculated using weighted average.

Average effective maturity is a weighted average of all the maturities of the bonds in a portfolio, computed by weighting each bond's effective maturity by the market value of the security. Average effective maturity takes into consideration all mortgage prepayments, puts, and adjustable coupons. Longer-maturity funds are generally considered more interest-rate sensitive than their shorter counterparts. We list Average Effective Maturity for Taxable Fixed-Income and Hybrid funds and Average Nominal Maturity for Municipal Bond Funds. Since this is collected by survey, it is important to bear in mind that different fund companies may use different interest-rate assumptions in determining call likelihood and timing. Generally speaking, the longer the maturity, the greater the interest rate risk. When duration is unavailable, this is used in the calculation of the fixed income style box. Calculated using weighted average.

Yield to Maturity: is the holding weighted average yield of all applicable holdings within a portfolio. Yield is a measure of the expected rate of return. Calculation of yield to maturity of a security ignores the impact of options such as a call or put feature. Calculated using weighted average.

Yield to worst is calculated on all possible call dates. It is assumed that prepayment occurs if the bond has call or put provisions and the issuer can offer a lower coupon rate based on current market rates. If market rates are higher than the current yield of a bond, the yield to worst calculation will assume no prepayments are made, and yield to worst will equal the yield to maturity.

The assumption is made that prevailing rates are static when making the calculation. The yield to worst will be the lowest of yield to maturity or yield to call (if the bond has prepayment provisions); yield to worst may be the same as yield to maturity but never higher. Calculated using weighted average.

Convexity demonstrates how the duration of a bond changes as the interest rate changes. If a bond's duration increases as yields increase, the bond is said to have negative convexity. If a bond's duration rises and yields fall, the bond is said to have positive convexity. Calculated using weighted average.

Key rate duration measures how the value of a debt security or a debt instrument portfolio, generally bonds, changes at a specific maturity point along the entirety of the yield curve. When keeping other maturities constant, the key rate duration is used to measure the sensitivity in a debt security's price to a 1% change in yield for a specific maturity.

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