

RATING REPORT

BNP MAD5 Index

AS OF: Apr 01, 2024

INCEPTION DATE: Jan 15, 2016

SPONSOR: BNP Paribas**FEE:** 50 bps**TOTAL ASSETS:** Please contact us for details.**TICKER:** BNPIMAD5**STYLE INFORMATION:** Momentum**REPLICATION PROCESS:** Derivative**INDEX TYPE:** Excess Return**WEIGHTING SCHEME:** Volatility Control**UNDERLYING REGION:** Global**BLOOMBERG TICKER:** BNPIMAD5 Index**ASSET CLASS:** Multi Asset/Rates**REGION DISTRIBUTED:** United States**Platinum****WHAT YOU NEED TO KNOW**

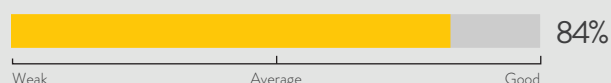
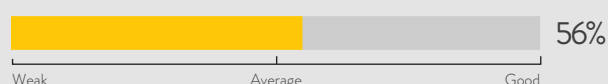
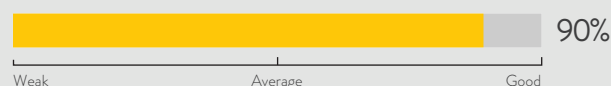
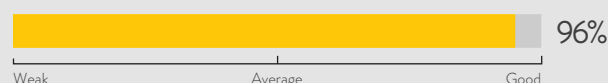
Platinum indices are determined to be of the highest all-round quality, scoring highly in categories judged to be critical by The Index Standard. This index uses a now common approach to construct a multi-asset basket and it is well implemented. The basket weights are determined by using mean variance optimization (MVO). The MVO process examines all eligible portfolios to find the best portfolio weights that maximize the expected return, subject to the 5% target volatility level and other constraints. It has been very effective. The index then uses momentum to remove some components and adds a standard volatility control overlay.

ABOUT THE INDEX

The index uses mean variance principles for asset allocations in its underlying portfolio, including equity, fixed income and commodity indices. It has a momentum filter to remove the worst performers, followed by a target volatility control methodology to switch between this portfolio and notional cash with a target volatility of 5%.

KEY INDEX STANDARD CATEGORIES

The graphs below show how the index or ETF scores in the categories The Index Standard® deems to be critical. A higher score is better and we show these as percentages. Please see the glossary at the end for more details.

Capital at Risk Metrics**Efficiency Metrics****Return Metrics****Risk Metrics****Robustness Metrics****Transparency Metrics**

KEY POINTS

Number of Holdings (Circa)

Varies (3 equity index futures, 2 fixed income index futures, 2 commodity indices, pre vol control.)

Potential for wide Bid/Offer spreads

Low

Current Attractiveness

Neutral

Is this concentrated in the Top 10? (Exceeds 20%)

No

Does this have Sector concentration? (Exceeds 20%)

No

Does this have Country concentration? (Exceeds 20%)

No

BNP MAD5 Index

	YTD	6 MONTHS	1 YEAR	3 YEARS	5 YEARS	10 YEARS
Returns*	4.47%	6.27%	6.61%	2.14%	3.82%	3.92%
Volatility		4.56%	4.51%	4.63%	4.89%	4.80%
Ann Return/Volatility		2.75	1.47	0.46	0.78	0.82

BENCHMARK PERFORMANCE

S&P 500 Price Return Index

	YTD	6 MONTHS	1 YEAR	3 YEARS	5 YEARS	10 YEARS
Returns*	10.16%	22.53%	27.86%	9.77%	13.14%	9.14%
Volatility		11.21%	11.21%	16.98%	20.93%	17.46%

* Returns for 3, 5, 10 years are annualized

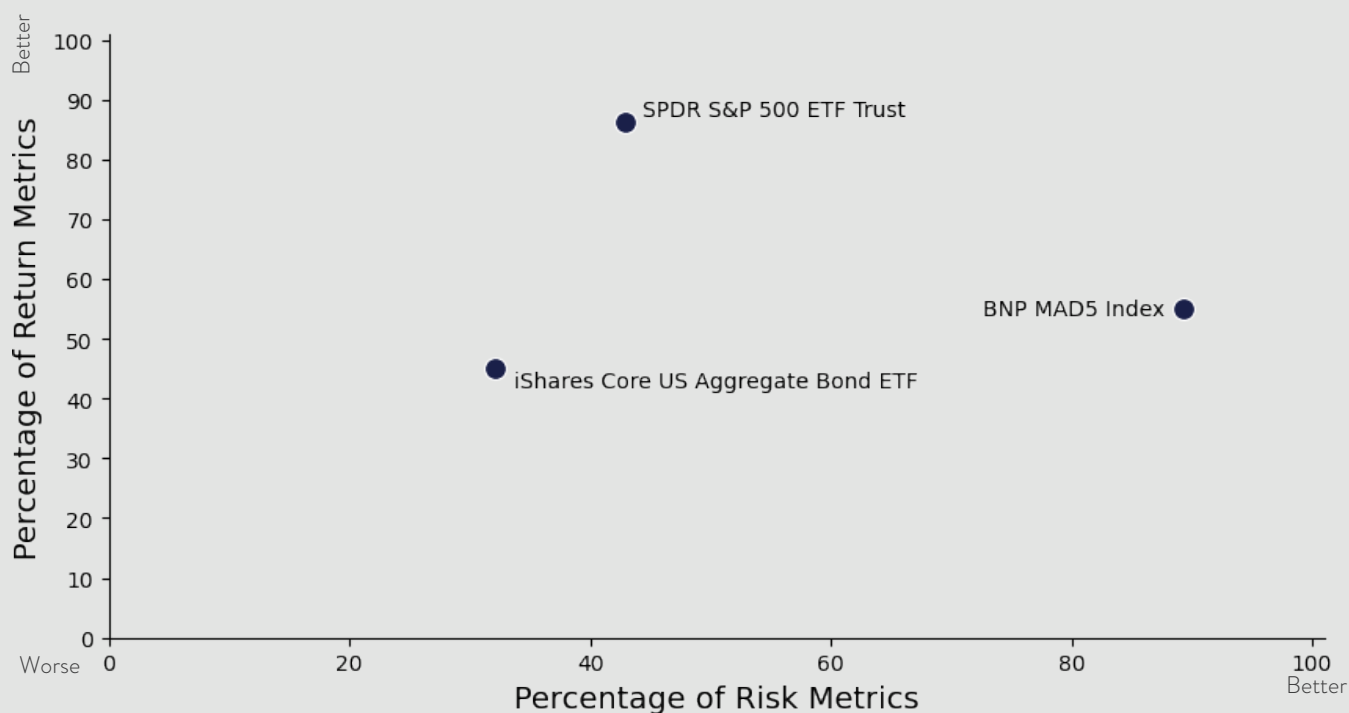
KEY METRICS & DRAWDOWNS

Beta	0.37
Dividend Yield	No
Max Drawdown 3 years	-8.25%
Max Drawdown Overall	-8.64%
Max Drawdown Recovery Days	531

* Calculated using data starting at the later of the index base (backtest start) date and 1st Jan 2000

CATEGORY METRIC COMPARISON

This graph shows the particular index or ETF on The Index Standard®'s key categories. We show the return scores as a percentage, higher is better. We combine all our risk scores to show one composite risk score, again, higher is better.



MOST SIMILAR ETF / INDICES

Bloomberg Global Momentum Diversified Leaders 5% ER Index, ticker BGMODL5E Index

BNP Paribas Momentum Multi Asset 5 Index, ticker BNPIMOMA Index

Credit Suisse Momentum Index, ticker CSEAMTM5 Index

Goldman Sachs Momentum Builder Multi-Asset Class Index, ticker GSMBMAC Index

BNP Paribas US Governance Multi Asset Index, ticker BNPIUGMA Index

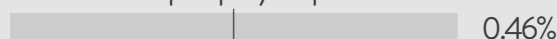
FACTORS

The Index Standard® runs a comprehensive analytical process to narrow down the characteristics of each index. We determine how much of the index performance can be attributed to various investment factors. A positive number means it leans on the factor and a negative number means it is not related to this factor.

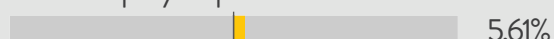
US Large Cap Equity Exposure



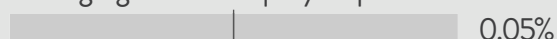
US Small Cap Equity Exposure



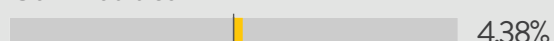
EAFE Equity Exposure



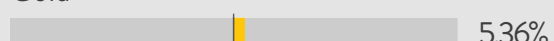
Emerging Market Equity Exposure



Commodities



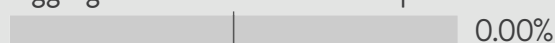
Gold



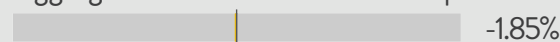
Treasury US Fixed Income Exposure



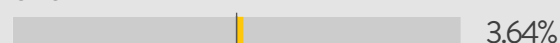
Aggregate US Fixed Income Exposure



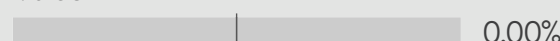
Aggregate Global Fixed Income Exposure



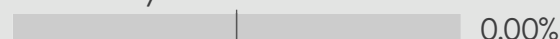
Size



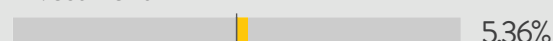
Value



Profitability



Investment



Momentum



Index Design Benefit (Alpha)



Glossary on The Index Standard® Rating Categories.

Robustness Metrics: This category helps us to understand the number and type of parameters used in the index, and the tradability in times of market stress, and the erosion of returns to due to tradability considerations. In addition, this metric assists us in understanding the validity of our results and should not be ignored by readers.

Transparency Metrics: This is a qualitative scorecard metric that explores the "small print", such as hidden fees or costs, as well as adherence to IOSCO principles.

Capital at Risk Metrics: This is a critical category for readers concerned with avoiding capital losses. Volatility is not an all-encompassing measure. It can be deceptive at times. The value at risk metric and drawdowns are critical inputs into this category.

Risk Metrics: This is an important category for us. We evaluate each index with several key risk and volatility metrics.

Efficiency Metrics: We evaluate several efficiency metrics to determine an Index's ability to balance off return and risk attributes and deliver returns commensurate with these risks.

Return Metrics: We analyze several critical return-related metrics, such as annualized returns, skew, and kurtosis. This category should not be viewed in isolation but balanced off with performance and risk.

For further information, please contact us at info@theindexstandard.com

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