

# BNP PARIBAS MULTI-ASSET GLOBAL DIVERSIFIED INDEX

Marketing Communication – For Professional Investors Only

*For Informational Purposes Only – Not Intended For Further Distribution – Not For Use With Retail Investors.*

*This document has been prepared for discussion purposes only and does not constitute an offer or a solicitation to engage in any trading strategy or the purchase or sale of any financial instrument.*



BNP PARIBAS CIB  
GLOBAL MARKETS  
SEPTEMBER 2024




**BNP PARIBAS**

The bank  
for a changing  
world

# INTRODUCING THE BNP PARIBAS MULTI ASSET GLOBAL DIVERSIFIED INDEX


The BNP Paribas Multi Asset Global Diversified Index provides exposure to a diverse range of asset classes and geographic regions. These asset classes include government bond futures and equity futures in Europe, Japan, the United States and China, as well as commodities and commodity futures.

The Index allows investors to aim at higher returns with lower volatility due to:




### DIVERSIFIED UNIVERSE OF UNDERLYINGS

Diversity in geographic zones covered;  
Market benchmarks are used;  
Components representing multiple asset classes.




### DAILY AND DYNAMIC ASSET ALLOCATION

The Index dynamically rebalances the weightings of the components, on a daily basis.



### RULES-BASED METHODOLOGY

The Index uses a proprietary rules-based methodology, using trend following.



### DAILY VOLATILITY CONTROL MECHANISM

The Index targets an annualised realised volatility of 5%, on a daily basis.



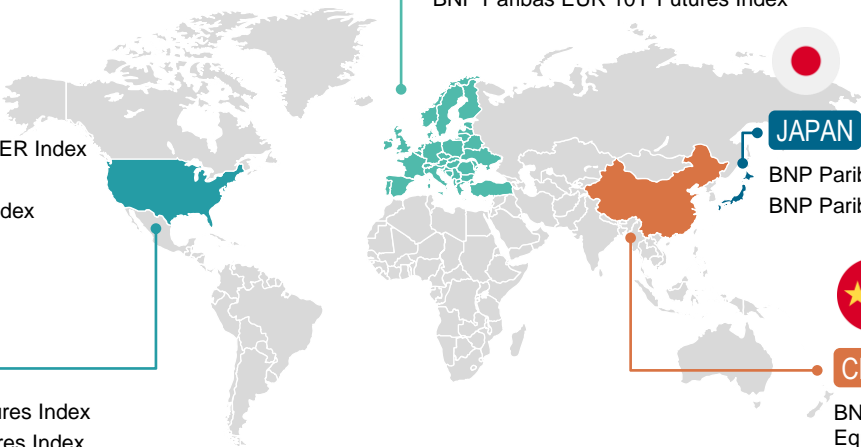
The BNP Paribas Multi-Asset Global Diversified Index is based on the successful investment methodology of the BNP Paribas Multi-Asset Diversified Index, created in 2012


CURRENCY	USD
TYPE OF INDEX	EXCESS RETURN
LIVE DATE	26 SEPTEMBER 2022
BLOOMBERG	BNPIMCD5 INDEX
REUTERS CODE	.BNPIMCD5



Please refer to: [multi-asset-global-diversified.bnpparibas.com](https://multi-asset-global-diversified.bnpparibas.com)  
For more information regarding the index.


## INDEX COMPOSITION






**GLOBAL**

- S&P GSCI Industrial Metals ER Index
- S&P GSCI Energy ER Index
- S&P GSCI Gold Index ER Index




**EUROPE**

- BNP Paribas Eurozone Equity Futures Index
- BNP Paribas EUR 10Y Futures Index




**JAPAN**

- BNP Paribas Japan Equity Futures Index
- BNP Paribas JPY 10Y Futures Index



**UNITED STATES**

- BNP Paribas US Equity Futures Index
- BNP Paribas USD 10Y Futures Index



**CHINA**

- BNP Paribas China A Connect Equity Futures Index

## STEP-BY-STEP METHODOLOGY



### DIVERSIFICATION

The Index sources its performance from ten index components, which have been **selected based on the following principles:**



#### Different geographical areas

The Index components are representative of four different geographic regions: US, Europe, Japan and China.



#### Use of market benchmarks

The Index components are futures-based indices that track the performance of futures contracts referencing market benchmarks.

Such contracts are usually highly liquid and representative of the overall market movement.



#### Components that represent multiple asset classes

The Index components represent a range of generally non-correlated assets including equities, commodities and government bond futures.



### DAILY DYNAMIC ALLOCATION

The Index dynamically rebalances the weightings of the components according to a proprietary rule-based methodology using trend following.

**This process follows three steps:**

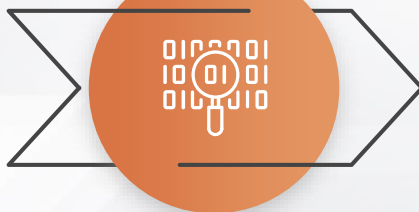
01.



#### Universe Creation

The allocation process begins by creating a universe of potential portfolios where the components are differently weighted across the board and under weight constraints.

02.



#### Portfolio Combination

The Index then tests the different portfolio combinations in the universe, considering only those with a long term realised volatility below a certain level.

03.



#### Portfolio Selection

The final portfolio, the Optimal Portfolio, is selected based on a proprietary rule-based methodology that uses trend following principles, meaning that it allocates more weight to recent outperformers and less to recent underperformers.



## DAILY VOLATILITY CONTROL

On a daily basis, the Index targets a Realised Volatility of around 5%, through a volatility control mechanism implemented during the Portfolio Construction. This mechanism utilises a set of rules that seek to manage the short-term volatility of a hypothetical portfolio in changing market conditions

Expected volatility is estimated based on the highest Realised Volatility observed over a period of 21 weekdays, for a hypothetical portfolio formulated with the previously described allocation process.

If the Realised Volatility exceeds the Target Volatility of 5%, the weight of each Index Component is reduced proportionately. If the Realised Volatility is below the Target Volatility, the weight of each Index Component is increased proportionately

**IF VOLATILITY  
> 5%**

Weight of components  
**decreases...**



□ ... until Volatility = 5%

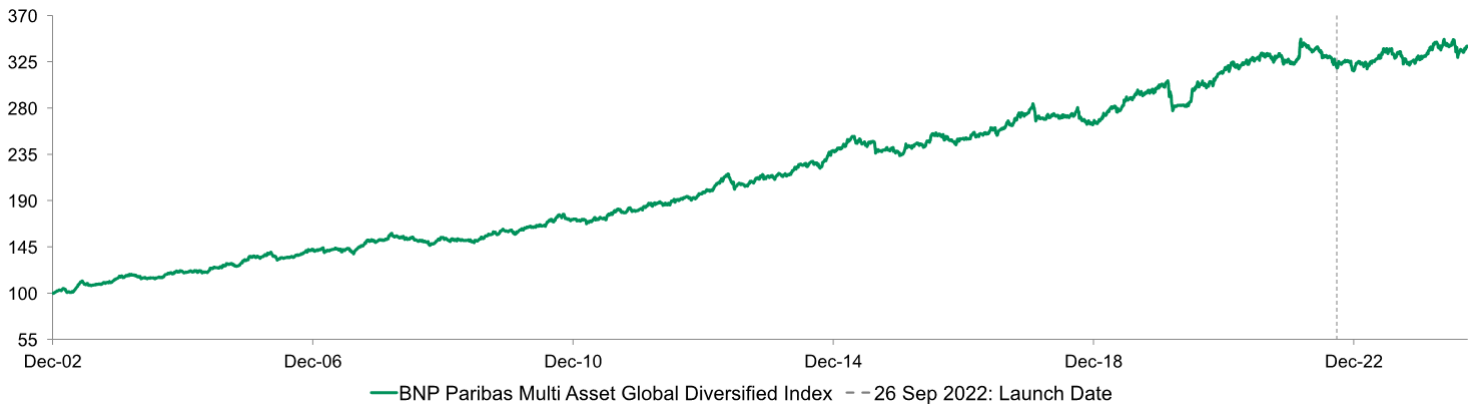
**IF VOLATILITY  
<5%**

Weight of components  
**increases...**



## INDEX STATISTICS

As of September 30<sup>th</sup>, 2024



Dec 02 - Sep 24	Multi Asset Global Diversified
Annualised Performance	5.78%
Annualised Volatility	4.92%
Annualised Sharpe Ratio	1.17
Max Drawdown	-9.55%

Source: Bloomberg, BNP Paribas.. Performance simulations based on historical data from 31 December 1994 to 25 September 2022, historical performance thereafter.

# MONTHLY PERFORMANCES

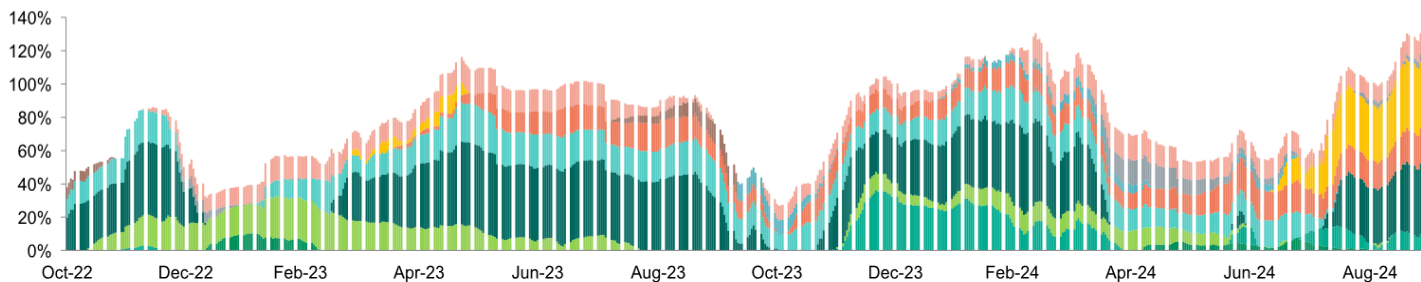
As of September 30<sup>th</sup>, 2024

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2024	0.57%	1.77%	2.17%	-1.61%	0.74%	-0.03%	-0.54%	-1.03%	1.27%				3.28%
2023	2.66%	-0.86%	0.84%	0.54%	0.75%	2.55%	0.27%	-1.36%	-1.25%	-1.93%	1.15%	0.76%	4.07%
2022	-1.07%	2.33%	3.40%	-1.14%	-0.04%	-1.26%	-0.60%	-1.51%	-2.23%	1.69%	0.22%	-2.79%	-3.14%
2021	-0.32%	1.71%	-0.46%	1.33%	0.99%	0.21%	1.78%	-0.33%	-1.66%	0.92%	-2.14%	1.12%	3.10%
2020	0.60%	-3.35%	-3.26%	0.46%	-0.07%	1.61%	5.12%	0.81%	-0.78%	-0.16%	3.84%	1.10%	5.74%
2019	1.32%	1.47%	2.13%	1.26%	-1.42%	3.53%	0.58%	1.97%	-0.34%	0.86%	0.08%	0.78%	12.81%
2018	1.33%	-3.01%	-0.37%	0.69%	0.26%	0.04%	-0.26%	1.12%	1.33%	-3.48%	-0.58%	-0.67%	-3.66%
2017	-0.01%	2.32%	-0.52%	0.53%	1.00%	-1.07%	1.37%	2.60%	-1.11%	3.40%	0.62%	0.69%	10.17%
2016	-0.08%	2.82%	0.52%	0.09%	-0.61%	3.56%	1.53%	-1.57%	0.14%	-1.89%	0.39%	0.60%	5.49%
2015	1.29%	1.61%	1.37%	0.35%	-0.00%	-1.88%	1.18%	-3.34%	-0.45%	0.84%	0.18%	-1.46%	-0.43%
2014	-0.57%	1.55%	-0.35%	0.36%	2.81%	1.33%	-0.71%	1.98%	-0.59%	0.30%	2.77%	1.90%	11.23%
2013	1.00%	1.46%	2.38%	2.74%	-1.38%	-3.32%	1.05%	-0.66%	1.91%	2.06%	1.48%	-0.68%	8.15%
2012	1.94%	1.33%	0.32%	0.84%	-0.63%	0.14%	1.63%	0.64%	0.62%	-0.55%	1.45%	1.41%	9.48%
2011	-0.64%	0.66%	-1.22%	2.10%	0.29%	-1.40%	3.40%	1.51%	-0.67%	0.63%	-0.13%	0.53%	5.06%
2010	-0.92%	1.32%	1.50%	1.38%	-0.29%	1.27%	-0.01%	3.27%	1.07%	0.28%	-1.11%	-0.18%	7.77%
2009	-1.86%	0.28%	0.45%	-0.86%	0.21%	-0.08%	2.17%	0.72%	1.34%	-0.54%	2.97%	-1.13%	3.61%
2008	0.55%	2.44%	0.00%	-1.19%	-0.56%	0.55%	-1.03%	-0.57%	-0.70%	-1.55%	2.47%	1.78%	2.11%
2007	-0.39%	0.43%	-0.75%	1.02%	0.00%	-0.51%	-0.08%	0.70%	2.58%	3.40%	-0.47%	0.13%	6.14%
2006	2.73%	-0.56%	0.78%	1.38%	-1.80%	-0.92%	0.13%	0.79%	0.90%	1.20%	1.99%	0.61%	7.39%
2005	0.14%	0.24%	0.22%	-1.09%	1.96%	2.02%	0.60%	1.76%	0.65%	-1.87%	2.46%	2.22%	9.60%
2004	0.49%	1.98%	0.31%	-2.07%	-0.51%	-0.05%	0.13%	0.31%	2.67%	0.98%	1.11%	-0.08%	5.31%
2003	2.43%	2.03%	-2.87%	1.17%	6.46%	-0.69%	-1.03%	0.97%	0.29%	1.65%	0.02%	3.65%	14.67%

Source: Bloomberg, BNP Paribas. Performance simulations based on historical data from 31 December 1994 to 25 September 2022, historical performance thereafter. Past performance or simulated performance is not an indicator of future performance.

## ASSET EXPOSURE

- BNP Paribas China A Connect Equity Futures Index ER
- BNP Paribas EUR 10Y Futures Index ER
- BNP Paribas Eurozone Equity Futures Index ER
- BNP Paribas JPY 10Y Futures Index ER
- BNP Paribas Japan Equity Futures Index ER
- BNP Paribas US Equity Futures Index ER
- BNP Paribas USD 10Y Futures Index ER
- GOLDMAN SACHS US ENERGY ER
- GOLDMAN SACHS US INDUSTRIAL METAL ER
- S&P GSCI Energy ER
- S&P GSCI Gold Index Excess Return



	BNP Paribas EUR 10Y Futures Index ER	BNP Paribas JPY 10Y Futures Index ER	BNP Paribas China A Connect Equity Futures Index ER	BNP Paribas USD 10Y Futures Index ER	BNP Paribas US Equity Futures Index ER	S&P GSCI Gold Index Excess Return	GOLDMAN SACHS US INDUSTRIAL METAL ER	Net Exposure
Sep 2024	10.76%	42.53%	4.35%	37.80%	21.05%	12.62%	4.21%	133.31%

Source: Bloomberg, BNP Paribas. Simulations of end-of-month allocation. Exposure figures that are shown include the daily volatility control and are rounded to the second decimal place.

Currency	Type of index	Live date	Bloomberg code	Reuters code
USD	Excess Return	26 Sep. 2022	BNPIMCD5 Index	.BNPIMCD5

## SELECTED RISKS AND CONSIDERATIONS ASSOCIATED WITH THE INDEX

### **The BNP Paribas Multi Asset Global Diversified Index levels are based on the values of notional assets and liabilities.**

The BNP Paribas Multi Asset Global Diversified Index only calculates the exposure to a dynamic, hypothetical portfolio that tracks the excess returns of the components of the BNP Paribas Multi Asset Global Diversified Index ("the Index Components") and is purely notional. There is no actual portfolio of assets to which any person makes any investment or has any ownership interest.

### **No recommendation.**

BNP Paribas makes no recommendation as to the suitability for investment of the BNP Paribas Multi Asset Global Diversified Index or any products or strategies based partly or wholly on the BNP Paribas Multi Asset Global Diversified Index. You should reach a decision after careful consideration with your advisors.

### **Strategies relying on the levels of the BNP Paribas Multi Asset Global Diversified Index may not be successful.**

There is a risk that the rules-based methodology of the BNP Paribas Multi Asset Global Diversified Index does not meet its stated objectives, including meeting its target volatility of 5%, which may result in underperformance of the hypothetical portfolio.

### **There are risks associated with an index methodology that attempts to replicate a momentum-based investment strategy.**

The calculation of the BNP Paribas Multi Asset Global Diversified Index employs a mathematical model intended to replicate what is known as a momentum-based investment strategy, which seeks to capitalise on positive market price trends based on the supposition that positive market price trends may continue. This momentum-based strategy underlying the methodology of the BNP Paribas Multi Asset Global Diversified Index is different from a strategy that seeks long-term exposure to a hypothetical portfolio consisting of constant components with fixed weights. Because the level of the BNP Paribas Multi Asset Global Diversified Index is intended to replicate the performance of the momentum-based investment strategy, these risks could also affect indirectly the performance of any product or strategy based partly or wholly on the levels of the BNP Paribas Multi Asset Global Diversified Index. BNP Paribas reserves the right to amend or adjust the BNP Paribas Multi Asset Global Diversified Index methodology from time to time and accepts no liability for any such amendment or adjustment. BNP Paribas is not under any obligation to continue the calculation, publication or dissemination of the BNP Paribas Multi Asset Global Diversified Index and accepts no liability for any suspension or interruption in the calculation thereof. Neither BNP Paribas nor any of its affiliates accepts any liability in connection with the publication or use of the level of the BNP Paribas Multi Asset Global Diversified Index at any given time. This is neither an offer to sell securities or other instruments nor a solicitation of an offer to buy securities or other instruments, nor shall it be deemed to provide investment, tax, accounting or other advice.

### **Correlation of performances among the Index Components may reduce the levels of the BNP Paribas Multi Asset Global Diversified Index.**

Performances among the Index Components may become highly correlated from time to time. High correlation during periods of negative returns among Index Components representing any one sector or asset type that have a substantial weighting in the BNP Paribas Multi Asset Global Diversified Index could have a material adverse effect on the levels of the BNP Paribas Multi Asset Global Diversified Index, which could in turn negatively affect the performance any product or strategy based partly or wholly on the levels of the BNP Paribas Multi Asset Global Diversified Index.

### **Legal and regulatory regimes may affect the BNP Paribas Multi Asset Global Diversified Index, its Index Components or its Sub-Components.**

The BNP Paribas Multi Asset Global Diversified Index and the Index Components (and sub-components thereof) are subject to legal and regulatory regimes in various regions and, in some cases, in other countries that may change in ways that could negatively affect the BNP Paribas Multi Asset Global Diversified Index or the Index Components (or sub-components thereof). Changes to the applicable legal or regulatory regimes may have a negative impact on the BNP Paribas Multi Asset Global Diversified Index level. The Index Components (or sub-components thereof) that are traded on one or more public exchanges are subject to the rules of the relevant exchange.

### **The BNP Paribas Multi Asset Global Diversified Index has Limited Historical Information.**

The BNP Paribas Multi Asset Global Diversified Index is a new index, launched on September 26<sup>th</sup> 2022. The performance shown before that date is hypothetical past performance, based on hypothetical back-tested information. This website also contains certain performance data based on back-testing, i.e., calculations of the hypothetical levels of the BNP Paribas Multi Asset Global Diversified Index as if it had actually existed during a defined period of time, and may in certain circumstances contain simulated levels information where the BNP Paribas Multi Asset Global Diversified Index or asset described has recently been established or issued. Further, you must note that such analysis is based on a number of working assumptions that may not be capable of duplication in actual trading terms. Unlike actual performance records, hypothetical or simulated performances, returns or scenarios may not necessarily reflect certain market factors such as liquidity constraints, fees and transaction costs and must be considered illustrative only. Actual historical or back-tested past performance does not constitute an indication of future results. The actual performance of the BNP Paribas Multi Asset Global Diversified Index may bear little relation to the hypothetical historical results.

### **The BNP Paribas Multi Asset Global Diversified Index has limited public information.**

The BNP Paribas Multi Asset Global Diversified Index is a custom index developed by BNP Paribas, the Index Sponsor. There is limited information relating to the BNP Paribas Multi Asset Global Diversified Index that is publicly available. In addition, publicly available information on the BNP Paribas Multi Asset Global Diversified Index, its methodology and its Equity Futures Indices, Bond Futures Indices and Commodity Indices is limited.

### **The BNP Paribas Multi Asset Global Diversified Index's Daily Volatility Control mechanism may reduce the appreciation potential of the BNP Paribas Multi Asset Global Diversified Index and may not equal the target volatility.**

The BNP Paribas Multi Asset Global Diversified Index's "volatility control" mechanism allows the BNP Paribas Multi Asset Global Diversified Index to dynamically adjust the level of the hypothetical exposure to the selected portfolio, possibly decreasing its exposure depending on the volatility environment. However, the risk control overlay might limit overall levels of the BNP Paribas Multi Asset Global Diversified Index in rising equity markets and may provide imperfect, limited protection in falling equity markets, particularly against sudden, large equity losses. There can be no assurance that such mechanism will be the most effective way to accurately assess volatility or to predict patterns of volatility. There can also be no assurance that the BNP Paribas Multi Asset Global Diversified Index will achieve its target volatility of 5%.

### **The Closing Levels of the BNP Paribas Multi Asset Global Diversified Index will include the deduction of an Annual Fee.**

The closing level of the BNP Paribas Multi Asset Global Diversified Index includes a deduction from the aggregate levels of its constituents of a Maintenance Fee equal to 0.50% per annum. As a result of this deduction, the level of the BNP Paribas Multi Asset Global Diversified Index will trail the level of a hypothetical identical portfolio from which no such amount is deducted.

### **The BNP Paribas Multi Asset Global Diversified Index is an "excess return" index and not a "total return" index.**

In general, returns from investing in futures contracts are derived from three sources: (1) changes in the price of such futures contracts (known as the "price return"), (2) profit or loss realised when rolling from a futures contract with one expiry date to another futures contract with a different, generally later, expiry date (known as the "roll return") and (3) interest earned on the cash (or other) collateral deposited in connection with the purchases of such a futures contract (known as the "collateral return"). The Index Components generate "excess returns", meaning the sum of the price return and roll return with respect to the Index Components. As a result, an investment in an instrument linked to the BNP Paribas Multi Asset Global Diversified Index will not generate the same returns that would be obtained from investing directly in future contracts underlying the Index Components because the collateral return is not used in calculating an "excess return" Index.

### **The Closing Level of the BNP Paribas Multi Asset Global Diversified Index is net of replication and rebalancing costs.**

The Closing Level of the BNP Paribas Multi Asset Global Diversified Index is net of replication and rebalancing costs associated with the BNP Paribas Multi Asset Global Diversified Index. As a result of these costs, the level of the BNP Paribas Multi Asset Global Diversified Index will trail the value of a hypothetical identical portfolio from which no such amount is deducted.

### **BNP Paribas Arbitrage SNC, an affiliate of the BNP Paribas Multi Asset Global Diversified Index Sponsor, BNP Paribas, is the Calculation Agent and is responsible for calculating the BNP Paribas Multi Asset Global Diversified Index.**

The policies and calculations for which the Calculation Agent is responsible could have an impact, positive or negative, on the level of the BNP Paribas Multi Asset Global Diversified Index. BNP Paribas and its affiliates are under no obligation to consider your interest as an investor in a product linked to the BNP Paribas Multi Asset Global Diversified Index.

### **Portions of the BNP Paribas Multi Asset Global Diversified Index may be effectively uninvested and earn no return.**

The BNP Paribas Multi Asset Global Diversified Index, on each day on which it is calculated, adjusts its exposure to the Index Components in an attempt to maintain a historical volatility approximately equal to an annualised volatility of 5%. If the aggregate weight of the Index Components is less than 100%, the BNP Paribas Multi Asset Global Diversified Index will decrease exposure to the components. As a result, the BNP Paribas Multi Asset Global Diversified Index may underperform a similar index that provides 100% exposure to the Index Components.

### **The price, level or value of the Index Components used in the BNP Paribas Multi Asset Global Diversified Index may differ from other publicly available prices.**

The levels of the Index Components that are Equity Futures Indices or Bond Futures Indices (the "BNP Paribas Component Indices") are intended to reflect the performance of the relevant futures contracts on a daily volume-weighted average price, subject to a set of trade filters selected by the Index Sponsor to exclude trades with certain codes provided by the relevant exchange that indicate non-standard trades. Such levels are calculated by the Index Calculation Agent or an affiliate thereof and are not publicly available and may not reflect all trades reported by the relevant futures exchange. The daily closing price or any other price of the underlying futures contract may vary from the volume-weighted average price reflected by the level of the applicable BNP Paribas Component Index. Furthermore, a BNP Paribas Component Index may be subject to a disruption due to the unavailability of a volume-weighted average price despite regular trading of the underlying futures contract and the availability of a closing price for such contract.

### **The BNP Paribas Multi Asset Global Diversified Index's target volatility feature may reduce its appreciation potential.**

Under normal circumstances, equity or commodity futures may exhibit significantly higher volatility than the target volatility of 5%. Accordingly, the "volatility control" mechanism of the BNP Paribas Multi Asset Global Diversified Index may have the effect of skewing allocations among eligible components in the BNP Paribas Multi Asset Global Diversified Index toward components that provide exposure to fixed-income assets (which typically have lower volatility than components that provide exposure to equity or commodity futures). Index Components that typically have lower volatility may have lower return potential than components that typically have higher volatility.

Moreover, if the BNP Paribas Multi Asset Global Diversified Index has a relatively high allocation to components that provide exposure to fixed-income assets, it will be particularly sensitive to factors that adversely affect the value of fixed-income instruments, such as increases in interest rates or declining perceptions of credit quality. A high allocation to components that provide exposure to fixed-income assets may also cause the BNP Paribas Multi Asset Global Diversified Index to underperform a portfolio more heavily weighted with higher volatility assets under certain circumstances. For example, in an equity bull market that is accompanied by rising interest rates, a portfolio heavily weighted with components that provide exposure to fixed-income assets might decline in value as a result of the rising interest rates, while a portfolio heavily weighted with components that provide exposure to equities would appreciate in value.

### **Other Key Risks:**

- The BNP Paribas Multi Asset Global Diversified Index involves daily rebalancing that is applied to the Index Components by asset type and geographical region. Changes in the value of the Index Components may offset each other.
- The BNP Paribas Multi Asset Global Diversified Index is subject to risks associated with Global Markets.
- The futures contracts underlying the Index Components are subject to currency exchange risk. The BNP Paribas Multi Asset Global Diversified Index contains a currency hedge mechanism that seeks to reduce losses due to currency exchange risk. It can also reduce or eliminate gains from currency exchange risk.
- BNP Paribas is the sponsor of the Equity Futures Indices and Bond Futures Indices that underlie the BNP Paribas Multi Asset Global Diversified Index.

## **IMPORTANT INFORMATION**

The methodology of and rules governing the index (the "Index Methodology" and the "Index") are proprietary. None of the sponsor of the Index (the "Index Sponsor"), the index calculation agent (where such party is not also the Index Sponsor, the "Index Calculation Agent") nor, where applicable, the index Investment Advisor (the "Index Investment Advisor") guarantee that there will be no errors or omissions in computing or disseminating the Index.

The Index Methodology is based on certain assumptions, certain pricing models and calculation methods adopted by the Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor, and may have certain inherent limitations. Information prepared on the basis of different models, calculation methods or assumptions may yield different results. You have no authority to use or reproduce the Index Methodology in any way, and neither BNP Paribas nor any of its affiliates shall be liable for any loss whatsoever, whether arising directly or indirectly from the use of the Index or Index Methodology or otherwise in connection therewith.

The Index Sponsor reserves the right to amend or adjust the Index Methodology from time to time in accordance with the rules governing the Index and accepts no liability for any such amendment or adjustment. Neither the Index Sponsor nor the Index Calculation Agent are under any obligation to continue the calculation, publication or dissemination of the Index and accept no liability for any suspension or interruption in the calculation thereof which is made in accordance with the rules governing the Index. None of the Index Sponsor, the Index Calculation Agent nor, where applicable, the Index Investment Advisor accept any liability in connection with the publication or use of the level of the Index at any given time.

The Index Methodology embeds certain costs in the strategy which cover amongst other things, friction, replication and repo costs in running the Index. The levels of such costs (if any) may vary over time in accordance with market conditions as determined by the Index Sponsor acting in a commercially reasonable manner.

BNP Paribas and its affiliates may enter into derivative transactions or issue financial instruments (together, the "Products") linked to the Index. The Products are not in any way sponsored, endorsed, sold or promoted by the sponsor of any index component (or part thereof) which may comprise the Index (each a "Reference Index") that is not affiliated with BNP Paribas (each such sponsor, a "Reference Index Sponsor"). The Reference Index Sponsors make no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the relevant Reference Index and/or the levels at which the relevant Reference Index stands at any particular time on any particular date or otherwise. No Reference Index Sponsor shall be liable (whether in negligence or otherwise) to any person for any error in the relevant Reference Index and the relevant Reference Index Sponsor is under no obligation to advise any person of any error therein. None of the Reference Index Sponsors makes any representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with the Products. BNP Paribas and its affiliates have no rights against or recourse to any Reference Index Sponsor should any Reference Index not be published or for any errors in the calculation thereof or on any other basis whatsoever in relation to any Reference Index, its production, or the level or constituents thereof. BNP Paribas and its affiliates shall have no liability to any party for any act or failure to act by any Reference Index Sponsor in connection with the calculation, adjustment or maintenance of the relevant Reference Index and have no affiliation with or control over any Reference Index or the relevant Reference Index Sponsor or the computation, composition or dissemination of any Reference Index. Although the Index Calculation Agent will obtain information concerning each Reference Index from publicly available sources that it believes reliable, it will not independently verify this information. Accordingly, no representation, warranty or undertaking (express or implied) is made and no responsibility is accepted by BNP Paribas or any of its affiliates nor the Index Calculation Agent as to the accuracy, completeness and timeliness of information concerning any Reference Index.

BNP Paribas and/or its affiliates may act in a number of different capacities in relation to the Index and/or products linked to the Index, which may include, but not be limited to, acting as market-maker, hedging counterparty, issuer of components of the Index, Index Sponsor and/or Index Calculation Agent. Such activities could result in potential conflicts of interest that could influence the price or value of a Product."

© BNP Paribas. All rights reserved.

## IMPORTANT INFORMATION

The "S&P GSCI Industrial Metals ER Index", "S&P GSCI Energy ER Index" and "S&P GSCI Gold Index ER Index" are products of S&P Dow Jones Indices LLC or its affiliates ("SPDJI") and has been licensed for use by BNP Paribas. Standard & Poor's® and S&P® are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"); BNP Paribas' Product(s) are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, any of their respective affiliates (collectively, "S&P Dow Jones Indices"). S&P Dow Jones Indices doesn't make any representation or warranty, express or implied, to the owners of the BNP Paribas' Product(s) or any member of the public regarding the advisability of investing in securities generally or in BNP Paribas Product(s), particularly or the ability of the BNP Paribas Multi Asset Global Diversified Index to track general market performance. Past performance of an index is not an indication or guarantee of future results. S&P Dow Jones Indices' only relationship to BNP Paribas with respect to the BNP Paribas Multi Asset Global Diversified Index is the licensing of the Index and certain trademarks, service marks and/or trade names of S&P Dow Jones Indices and/or its licensors. The "S&P GSCI Industrial Metals ER Index", "S&P GSCI Energy ER Index" and "S&P GSCI Gold Index ER Index" are determined, composed and calculated by S&P Dow Jones Indices without regard to BNP Paribas. S&P Dow Jones Indices has no obligation to take the needs of BNP Paribas or the owners of BNP Paribas' Product(s) into consideration in determining, composing or calculating the "S&P GSCI Industrial Metals ER Index", "S&P GSCI Energy ER Index" and "S&P GSCI Gold Index ER Index". S&P Dow Jones Indices is not responsible for and have not participated in the determination of the prices, and amount of BNP Paribas' Product(s) or the timing of the issuance or sale of BNP Paribas' Product(s) or in the determination or calculation of the equation by which BNP Paribas' Product(s) is to be converted into cash, surrendered or redeemed, as the case may be.

S&P Dow Jones Indices has no obligation or liability in connection with the administration, marketing or trading of BNP Paribas' Product(s). There is no assurance that investment products based on the "S&P GSCI Industrial Metals ER Index", "S&P GSCI Energy ER Index" and "S&P GSCI Gold Index ER Index" will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment or tax advisor. A tax advisor should be consulted to evaluate the impact of any tax-exempt securities on portfolios and the tax consequences of making any particular investment decision. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment advice.

S&P DOW JONES INDICES DOES NOT GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS AND/OR THE COMPLETENESS OF THE BNP PARIBAS MULTI ASSET GLOBAL DIVERSIFIED INDEX OR ANY DATA RELATED THERETO OR ANY COMMUNICATION, INCLUDING BUT NOT LIMITED TO, ORAL OR WRITTEN COMMUNICATION (INCLUDING ELECTRONIC COMMUNICATIONS) WITH RESPECT THERETO. S&P DOW JONES INDICES SHALL NOT BE SUBJECT TO ANY DAMAGES OR LIABILITY FOR ANY ERRORS, OMISSIONS, OR DELAYS THEREIN. S&P DOW JONES INDICES MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE OR AS TO RESULTS TO BE OBTAINED BY BNP PARIBAS, OWNERS OF THE BNP PARIBAS' PRODUCTS OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE BNP PARIBAS MULTI ASSET GLOBAL DIVERSIFIED INDEX OR WITH RESPECT TO ANY DATA RELATED THERETO. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT WHATSOEVER SHALL S&P DOW JONES INDICES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, TRADING LOSSES, LOST TIME OR GOODWILL, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE. THERE ARE NO THIRD-PARTY BENEFICIARIES OF ANY AGREEMENTS OR ARRANGEMENTS BETWEEN S&P DOW JONES INDICES AND BNP PARIBAS, OTHER THAN THE LICENSORS OF S&P DOW JONES INDICES.



# DISCLAIMER

Legal Notice: This document/communication may contain "Research" as defined under MiFID II unbundling rules; any such Research is intended either (i) for those firms who are in scope of the MiFID II unbundling rules and have signed up to a BNP Paribas Global Markets Research package, or (ii) for firms that are out of scope of the MiFID II unbundling rules and therefore are not required to pay for Research under MiFID II. Please note that it is your firm's responsibility to ensure that you do not view or use any Research in this document if your firm has not signed up to a BNP Paribas Global Markets Research package, unless your firm is out of scope of the MiFID II unbundling rules. This document may also be regarded as a minor non-monetary benefit (MNMB) and it is your firm's responsibility to consider its own regulatory obligations in relation to inducements and accepting MNMBs.

This document is CONFIDENTIAL AND FOR DISCUSSION PURPOSES ONLY; it constitutes a marketing communication and has been prepared by a Sales and Marketing function within BNP Paribas and/or its subsidiaries or affiliates (collectively "we" or "BNP Paribas"). As a confidential document it is submitted to selected recipients only and it may not be made available (in whole or in part) to any other person without BNP Paribas' written consent.

This document is not a recommendation to engage in any action, does not constitute or form any part of any offer to sell or issue and is not a solicitation of any offer to purchase any financial instrument, nor shall it or any part of it nor the fact of its distribution form the basis of, or be relied on in connection with, any contract or investment decision. To the extent that any transaction is subsequently entered into between the recipient and BNP Paribas, such transaction will be entered into upon such terms as may be agreed by the parties in the relevant documentation. The information contained in this document has been obtained from sources believed to be reliable, but there is no guarantee of the accuracy, completeness or suitability for any particular purpose of such information or that such information has been independently verified by BNP Paribas or by any person. None of BNP Paribas, its members, directors, officers, agents or employees accepts any responsibility or liability whatsoever or makes any representation or warranty, express or implied, as to the accuracy or completeness of the information, or any opinions based thereon, contained in this document and it should not be used in place of professional advice. Additional information may be provided on request, at our discretion. Any scenarios, assumptions, historical or simulated performances, indicative prices or examples of potential transactions or returns are included for illustrative purposes only. Past performance is not indicative of future results. Investors may get back less than they invested. BNP Paribas gives no assurance that any favourable scenarios described are likely to happen, that it is possible to trade on the terms described herein or that any potential returns illustrated can be achieved. This document is current as at the date of its production and BNP Paribas is under no obligation to update or keep current the information herein. In providing this document, BNP Paribas offers no investment, financial, legal, tax or any other type of advice to, and has no fiduciary duty towards, recipients. Certain strategies and/or potential transactions discussed in this document may involve the use of derivatives which may be complex in nature and may give rise to substantial risks, including the risk of total or partial loss of any investment or losses without limitation and which should only be undertaken by those with the requisite knowledge and experience. BNP Paribas makes no representation and gives no warranty as to the results to be obtained from any investment, strategy or transaction, or as to whether any strategy, security or transaction described herein may be suitable for recipients' financial needs, circumstances or requirements. Recipients must make their own assessment of strategies, securities and/or potential transactions detailed herein, using such professional advisors as they deem appropriate. BNP Paribas accepts no liability for any direct or consequential losses arising from any action taken in connection with or reliance on the information contained in this document even where advised of the possibility of such losses.

As an investment bank with a wide range of activities BNP Paribas may face conflicts of interest and you should be aware that BNP Paribas and/or any of its affiliates may be long or short, for their own account or as agent, in investments, transactions or strategies referred to in this document or related products before the material is published to clients and that it may engage in transactions in a manner inconsistent with the views expressed in this document, either for their own account or for the account of their clients. Additionally, BNP Paribas may have acted as an investment banker or may have provided significant advice or investment services to companies or in relation to investments mentioned in this document. The information in this document is not intended for distribution to, or use by, any person or entity in any jurisdiction where (a) the distribution or use of such information would be contrary to law or regulations, or (b) BNP Paribas or a BNP Paribas affiliate would become subject to new or additional legal or regulatory requirements. Persons in possession of this document should inform themselves about possible legal restrictions and observe them accordingly.

This document is intended for, and is directed at, (a) Professional Clients and Eligible Counterparties as defined by the European Union Markets in Financial Instruments Directive ("MiFID"), and (b) where relevant, persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, and at other persons to whom it may lawfully be communicated (together "Relevant Persons"). Any investment or investment activity to which this document relates is available only to and will be engaged in only with Relevant Persons. Any person who is not a Relevant Person should not act or rely on this document or its content. Any reference to EU legislation or requirements herein should be read as a reference to the relevant EU legislation or requirement and/or its UK equivalent legislation or requirement, as appropriate, where applicable, and as the context requires.

This document is being communicated by BNP Paribas and in the UK by BNP Paribas London Branch. BNP Paribas is incorporated in France with Limited Liability. Registered Office: 16 boulevard des Italiens, 75009 Paris, France. 662 042 449 RCS Paris. BNP Paribas is authorised and regulated by the European Central Bank and the Autorité de contrôle prudentiel et de résolution. BNP Paribas is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. BNP Paribas London Branch is registered in England and Wales under number FC13447. UK establishment number: BR000170. UK establishment office address: 10 Harewood Avenue, London NW1 6AA; tel: +44 (0)20 7595 2000; fax: +44 (0)20 7595 2555 (www.bnpparibas.com).

© BNP Paribas. All rights reserved.

## IN RESPECT OF THE INDEX:

The methodology of and rules governing the index (the "Index Methodology" and the "Index") are proprietary. None of the sponsor of the Index (the "Index Sponsor"), the index calculation agent (where such party is not also the Index Sponsor, the "Index Calculation Agent") nor, where applicable, the index Investment Advisor (the "Index Investment Advisor") guarantee that there will be no errors or omissions in computing or disseminating the Index.

The Index Methodology is based on certain assumptions, certain pricing models and calculation methods adopted by the Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor, and may have certain inherent limitations. Information prepared on the basis of different models, calculation methods or assumptions may yield different results. You have no authority to use or reproduce the Index Methodology in any way, and neither BNP Paribas nor any of its affiliates shall be liable for any loss whatsoever, whether arising directly or indirectly from the use of the Index or Index Methodology or otherwise in connection therewith.

The Index Sponsor reserves the right to amend or adjust the Index Methodology from time to time in accordance with the rules governing the Index and accepts no liability for any such amendment or adjustment. Neither the Index Sponsor nor the Index Calculation Agent are under any obligation to continue the calculation, publication or dissemination of the Index and accept no liability for any suspension or interruption in the calculation thereof which is made in accordance with the rules governing the Index. None of the Index Sponsor, the Index Calculation Agent nor, where applicable, the Index Investment Advisor accept any liability in connection with the publication or use of the level of the Index at any given time.

The Index Methodology embeds certain costs in the strategy which cover amongst other things, friction, replication and repo costs in running the Index. The levels of such costs (if any) may vary over time in accordance with market conditions as determined by the Index Sponsor acting in a commercially reasonable manner.

BNP Paribas and its affiliates may enter into derivative transactions or issue financial instruments (together, the "Products") linked to the Index. The Products are not in any way sponsored, endorsed, sold or promoted by the sponsor of any index component (or part thereof) which may comprise the Index (each a "Reference Index") that is not affiliated with BNP Paribas (each such sponsor, a "Reference Index Sponsor"). The Reference Index Sponsors make no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the relevant Reference Index and/or the levels at which the relevant Reference Index stands at any particular time on any particular date or otherwise. No Reference Index Sponsor shall be liable (whether in negligence or otherwise) to any person for any error in the relevant Reference Index and the relevant Reference Index Sponsor is under no obligation to advise any person of any error therein. None of the Reference Index Sponsors makes any representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with the Products. BNP Paribas and its affiliates have no rights against or recourse to any Reference Index Sponsor should any Reference Index not be published or for any errors in the calculation thereof or on any other basis whatsoever in relation to any Reference Index, its production, or the level or constituents thereof. BNP Paribas and its affiliates shall have no liability to any party for any act or failure to act by any Reference Index Sponsor in connection with the calculation, adjustment or maintenance of the relevant Reference Index and have no affiliation with or control over any Reference Index or the relevant Reference Index Sponsor or the computation, composition or dissemination of any Reference Index. Although the Index Calculation Agent will obtain information concerning each Reference Index from publicly available sources that it believes reliable, it will not independently verify this information. Accordingly, no representation, warranty or undertaking (express or implied) is made and no responsibility is accepted by BNP Paribas or any of its affiliates nor the Index Calculation Agent as to the accuracy, completeness and timeliness of information concerning any Reference Index.

BNP Paribas and/or its affiliates may act in a number of different capacities in relation to the Index and/or products linked to the Index, which may include, but not be limited to, acting as market-maker, hedging counterparty, issuer of components of the Index, Index Sponsor and/or Index Calculation Agent. Such activities could result in potential conflicts of interest that could influence the price or value of a Product.



# BNP PARIBAS

The bank  
for a changing  
world