



Final Termsheet

VERBIO Vereinigte BioEnergie Mini-Future Short

Valor: 123733557; ISIN: CH1237335570
SSPA Product Type: Mini-Futures (2210)

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This product is not a collective investment scheme as per the Federal Act on Collective Investment Schemes (CISA) and thus is not subject to the supervision of the Swiss Financial Market Supervision Authority (FINMA). Therefore, investors in this product are not eligible for the specific investor protection under the Swiss Federal Act on Collective Investment Schemes and bear the credit risk of the Issuer and the Guarantor respectively.

This document is not available in one of the official Swiss languages and is only available in English.

A. Product Description

A Mini-Future Short requires a low level of capital investment and therefore enables investors to participate with a leverage in the price performance of the Underlying. It can be used as speculative instrument or for hedging purposes. With a Mini-Future Short the Holder profits from falling prices of the Underlying. A Mini-Future Short does not have a fixed Redemption Date. If the Underlying reaches the Stop-Loss-Level, a Mini-Future expires immediately. The Holders are reimbursed a potential Cash Settlement Amount which depends on the market conditions after the Stop-Loss-Level has been reached.

Issuer	BNP Paribas Issuance B.V., Herengracht 595, NL-1017 CE Amsterdam, The Netherlands (S&P: A+) (on an unsecured basis)
Guarantor	BNP Paribas SA, 16 Boulevard des Italiens, 75009 Paris, France (S&P: A+ / Moody's: Aa3 / Fitch: AA-) (on an unsecured basis)
Calculation Agent	BNP Paribas Arbitrage S.N.C., 1 rue Laffitte 75009 Paris, France
Principal Security Agent	BNP PARIBAS SA, Paris, Zurich Branch, Paris, Succursale de Zurich, Selnaustrasse 16, P.O. Box, 8022 Zurich, Switzerland
Prudential Supervision	BNP Paribas Issuance B.V. is not subject to prudential supervision BNP Paribas SA is authorised and supervised by the European Central Bank (ECB) and by the Autorité de Contrôle Prudentiel et de Résolution and regulated by the <i>Autorité des marchés financiers</i> in France.
Issue Type	Certificate
Number of Certificates	Up to 10,000,000, with option to issue further Certificates
Ratio	10 (10 Mini-Future(s) control(s) 1 Underlying)
Settlement Currency	CHF
Issue Price per Certificate	CHF 1.16
Trade Date	December 14 th , 2022
Issue Date	December 15 th , 2022
Commencement Date	Issue Date
Expiration Date	Mini-Future - no fixed Expiration Date
Valuation Date	If a Stop-Loss Event occurs prior to the Redemption Date, the date on which such Stop-Loss Event occurs; or in case of exercise of the Issuer's Termination Right, the Termination Date.
Redemption Date	The Redemption Date will always be at least 5 Business Days following the Valuation Date or Optional Redemption Valuation Date, as the case may be, subject to adjustment with the Business Day Convention.
Underlying	VERBIO Vereinigte BioEnergie, Reuters RIC: VBKG.DE , Bloomberg Code: VBK GY Equity



Underlying Currency	EUR								
Underlying Exchange	Deutsche Börse AG								
Initial Financing Level	EUR 77.7778								
Initial Leverage	5.63								
Financing Level Currency	EUR								
Financing Level Rounding Rule	Downwards to the next 0.0001 unit(s) the Underlying is quoted in								
Initial Stop-Loss-Level	EUR 70.00								
Initial Stop-Loss-Buffer	10% of Initial Financing Level								
Minimum Stop-Loss-Buffer	0% of Current Financing Level ("CFL")								
Maximum Stop-Loss-Buffer	20% of Current Financing Level								
Stop-Loss Rounding Rule	Downwards to the next 0.01 unit(s) the Underlying is quoted in								
Initial Financing Spread	The initial interest margin is set by the Calculation Agent at 4.50%. The Financing Spread may be revised, at the sole discretion of the Calculation Agent, on each Local Business Day, between 0% and the Maximum Financing Spread.								
Maximum Financing Spread	8% (the maximum interest margin set by the Calculation Agent)								
Reset Date	The first calendar day in each month or any calendar day								
Current Financing Spread	On the Commencement Date, the Initial Financing Spread, thereafter the Current Financing Spread will be an amount up to the Maximum Financing Spread determined by the Calculation Agent on each Reset Date by reference to market conditions.								
Interbank Rate	The Interbank Rate which appears on Reuters screen page EURIBOR1MD=. If the appropriate rate fails to appear on Reuters screen page on time, then the Calculation Agent will determine the rate by reference to such sources as the Calculation Agent may determine acting in good faith and in a commercially reasonable manner.								
Interbank Rate 2	Not Applicable								
Current Financing Level	The CFL means, in respect of a calendar day (day _t), an amount calculated as follows: $CFL_t = CFL_{t-1} * (1 + FinancingRate_{t-1})^{1/360} - Dividend\ Adjustment\ Amount$ <table border="0" style="margin-left: 40px;"> <tr> <td>CFL_t</td> <td>Current Financing Level applicable on day_t</td> </tr> <tr> <td>CFL_{t-1}</td> <td>Current Financing Level applicable on day_{t-1}</td> </tr> <tr> <td>Financing Rate_{t-1}</td> <td>Interbank Rate minus the Current Financing Spread on day_{t-1}.</td> </tr> <tr> <td>Dividend Adjustment Amount</td> <td>In respect of an Ex-Dividend Date, an amount determined by the Calculation Agent net of applicable taxes and other deductions</td> </tr> </table>	CFL _t	Current Financing Level applicable on day _t	CFL _{t-1}	Current Financing Level applicable on day _{t-1}	Financing Rate _{t-1}	Interbank Rate minus the Current Financing Spread on day _{t-1} .	Dividend Adjustment Amount	In respect of an Ex-Dividend Date, an amount determined by the Calculation Agent net of applicable taxes and other deductions
CFL _t	Current Financing Level applicable on day _t								
CFL _{t-1}	Current Financing Level applicable on day _{t-1}								
Financing Rate _{t-1}	Interbank Rate minus the Current Financing Spread on day _{t-1} .								
Dividend Adjustment Amount	In respect of an Ex-Dividend Date, an amount determined by the Calculation Agent net of applicable taxes and other deductions								
Holder's Put Option	Holders are entitled to exercise their option to redeem their Mini-Future, provided that the Issuer has not previously exercised its right of termination, by giving not less than 30 calendar days notice prior to the scheduled Optional Redemption Valuation Date.								
Optional Redemption Valuation Date	The last Relevant Business Day of March each year, commencing one year after the Commencement Date.								
Issuer's Termination Right	The Issuer has the option, commencing one day after the Commencement Date, to redeem all of the Mini-Futures at the Cash Settlement Amount by giving at least ten (10) Relevant Business Days notice specifying the Termination Date.								
Termination Date	The date specified as such by the Issuer in the notice notifying the Holders that the Issuer wishes to redeem early the Mini-Futures.								
Current Stop-Loss-Level	On the Commencement Date, the Initial Stop-Loss-Level, and on each Reset Date thereafter, an amount determined by the Calculation Agent in accordance with the following formula:								



	Current Financing Level - Current Stop-Loss-Buffer
	Rounded downwards in accordance with the Stop-Loss Rounding Rule.
Current Stop-Loss-Buffer	The Current Stop-Loss-Buffer will be an amount selected by the Calculation Agent on each Reset Date by reference to market conditions (including market volatility) at/or between the Minimum Stop-Loss-Buffer and the Maximum Stop-Loss-Buffer.
Stop-Loss Event	The Mini-Futures will terminate automatically if, at any time during the opening hours of the Underlying Exchange on any Relevant Business Day from and including the Commencement Date, the value of the Underlying is equal to or greater than the Current Stop-Loss-Level. A Stop-Loss Event will override both an Issuer's Termination Right and a Holder's Put Option.
Stop-Loss Termination Reference Price	A fair value price for the Underlying as determined by the Calculation Agent on a best effort basis during a reasonable period following the Stop-Loss Event.
Final Reference Price	In case of Holder's Put Option and Issuer's Termination, the official closing price of the Underlying at the Valuation Time on the Optional Redemption Valuation Date or the Termination Date, as the case may be. In case of a Stop-Loss Event, the Stop-Loss Termination Reference Price.
Valuation Time	The time with reference to which the Underlying Exchange publishes the official closing price of the Underlying.
Conversion Rate	The exchange rate between the Financing Level Currency and the Settlement Currency on the relevant calculation day, as determined by the Calculation Agent.
Cash Settlement Amount	<p>In case of the occurrence of a Stop-Loss Event, or in case of the exercise of Holder's Put Option or in case of exercise of the Issuer's Termination Right, the Holder shall receive on the Redemption Date, in respect of each Certificate, a Cash Settlement Amount in the Settlement Currency calculated in accordance with the following formula:</p> $\text{Max} [0 ; (\text{Current Financing Level} - \text{Final Reference Price}) / \text{Ratio}],$ converted into the Settlement Currency at the prevailing Conversion Rate
Local Business Day Centre	Zurich
Relevant Business Day	Exchange Business Day
Business Day Convention	Following Business Day
Payment Business Days	Zurich
Governing Law	French law
Jurisdiction	The jurisdiction of the Paris Court of Appeal (Cour d'Appel de Paris)
Security	Guarantee of Guarantor, subject to French law and jurisdiction of the Paris Court of Appeal (Cour d'Appel de Paris)
Listing	None
Swiss Offering	The Certificates qualify for distribution to non-qualified investors in Switzerland
Fees	Not applicable (included in the Financing Spread)
Distribution Fees	None are paid
Relevant Clearing System / Form	SIX SIS Ltd. / Uncertificated Securities
Minimum Investment, Minimum Trading Size, Minimum Exercise	1 Certificate and multiples of 1 thereafter
Swiss Tax Information	The following Swiss tax summary is valid at the time of the issuance of the product. It is for general information only and does not purport to be a comprehensive description of all Swiss tax consequences that may be relevant to a decision to purchase, own or dispose of the product. Swiss tax laws and the practice of the Swiss tax authorities may change, possibly with retroactive effect. Prospective purchasers of the product should consult their own tax advisers concerning the tax consequences of purchasing, holding and disposing of the product in the light of their particular circumstances.



Withholding tax and stamp duty

The product is not subject to Swiss withholding tax. This product is not a taxable security for Swiss stamp duty purposes. Therefore, the issuance and secondary market transactions of the product are not subject to Swiss stamp duty.

Swiss Income Tax

Please note that the following income tax treatment is only applicable for private investors with tax domicile in Switzerland, holding the product as part of their private assets in a tax perspective.

The leverage of this product is more than four at issuance. Therefore, this product should be treated as a future contract for Swiss tax purposes. Any profits/returns realized during the term of the product or at redemption are in principle not subject to the Federal Direct Tax ("Direkte Bundessteuer") as they are considered as tax exempt capital gains. The cantonal and communal income tax treatment can differ from the tax treatment for the Federal Direct Tax. However, in general the tax treatments correspond.

Automatic Exchange of Information in Tax Matters

Switzerland has implemented the Automatic Exchange of Information in Tax Matters ("AEOI") as of 1st January 2017 with the EU and various other countries and is negotiating the introduction of the AEOI with further countries. The website "www.sif.admin.ch" provides an overview of all partner states Switzerland has signed an agreement for the introduction of the AEOI. In this context the EU Savings Tax for Swiss paying agents and the Final Withholding Tax with UK and Austria have been repealed as from 1st January 2017.

B. Prospects for Profits and Losses

Market expectation

A Mini-Future Short offers the possibility to benefit from changes in the prices of the Underlying with a leverage effect. Investors in a Mini-Future Short expect the Underlying price to fall and do not expect the Underlying Currency to appreciate against the Settlement Currency.

Risk tolerance

Due to the leverage effect, the value of the Mini-Future Short will fluctuate more than the value of the Underlying. An investment in a Mini-Future Short therefore bears a higher risk than a direct one to one short investment in the Underlying. Investors in this product should be experienced investors being familiar with derivative products, leverage, the Conversion Rate and the Underlying. Investors are willing to take a higher risk compared with a direct one to one short investment in the Underlying in order to achieve a higher profit potential. The value of a Mini-Future Short will be affected both by the performance of the Underlying and by the performance of the Conversion Rate between the Underlying Currency and the Settlement Currency.

Profits potential

A Mini-Future Short benefits disproportionately from a negative price performance of the Underlying. The profit potential for a Mini-Future Short is limited given the Underlying cannot go below zero. The value of a Mini-Future Short will be positively affected by an appreciation of the Underlying Currency against the Settlement Currency.

Loss potential

Holders may lose some or all of their invested capital but the maximum loss is limited to the initial capital invested. If the Underlying and , the Conversion Rate do not move, a Mini-Future Short can lose value over time if the interest margin set by the Issuer is greater than the interest earned from the short position. A Mini-Future Short has no fixed maturity, but it terminates automatically if the Underlying price reaches or goes above the Stop-Loss-Level and is then redeemed as determined by the Calculation Agent by reference to unwinding of the hedging position on a best effort basis. The Stop-Loss-Level is adjusted periodically. The risk for an investment in a Mini-Future Short, which is significantly greater than it would be for a direct one to one short investment, is based not only on the leverage effect, but also on the occurrence of a Stop-Loss Event. The value of a Mini-Future Short will also be negatively affected by a depreciation of the Underlying Currency against the Settlement Currency. Please also review the Early Redemption and Issuer and Guarantor Risk factors below.

C. Significant Risks for Investors

General

An investment in the Certificates involves a high degree of risk, which may include, among others, price risks associated with the Underlying(s), interest rate, foreign exchange, market, time value and political risks.

Potential investors must have the knowledge and experience necessary to enable them to evaluate the risks and merits of an investment in the Certificates. Prospective investors should determine, based on their own independent review and such professional advice (including, without limitation, tax, accounting, credit, legal and regulatory advice) as they deem appropriate



under the circumstances, that the acquisition and holding of the Certificates (i) is fully consistent with their financial needs, objectives and condition, (ii) complies and is fully consistent with all investment policies, guidelines and restrictions applicable to them and (iii) is a fit, proper and suitable investment for them, notwithstanding the clear and substantial risks inherent in investing in or holding the Certificates. In making such determination, an investor should consider carefully all the information set forth in the Final Terms and the Base Prospectus.

No Capital Protection

The Certificates are not capital protected at any time. There is a risk of partial or total capital loss, and therefore an investment in the Certificates is highly speculative, involving significant risk, including the possible loss of the amount invested, and should therefore only be considered by persons who can afford a loss of their entire investment.

Share Linked Risks

An investment in Certificates linked to Shares entails significant risks not associated with an investment in a conventional debt security. On redemption, Holders will receive an amount (if any) determined by reference to the value of the Underlying, the Conversion Rate and the leverage. Accordingly, an investment in the Certificates may bear higher market risks compared with a direct equity investment and investors should take advice accordingly. The Issuers of the Shares will not have participated in the preparation of the Final Terms or in establishing the terms of the Certificates, and none of the Issuer, the Guarantor, the Calculation Agent or the Principal Security Agent will make any investigation or enquiry in connection with such offering with respect to any information concerning any Share issuer contained in the Final Terms or in the documents from which such information was extracted. Consequently, there can be no assurance that all events occurring prior to the Issue Date will have been publicly disclosed. Subsequent disclosure of any such events or the disclosure of or failure to disclose material future events concerning any Share issuer could affect the trading price of the Shares and therefore the trading price of the Certificates.

Early Redemption

The Terms and Conditions in the Base Prospectus provide for early redemption on the occurrence of force majeure, illegality and certain other events affecting the Underlying and/or the hedge, whereupon the Calculation Agent shall calculate the fair market value of each Certificate less the cost to the Issuer and/or its affiliates of unwinding any underlying related hedging arrangements, all as determined by the Calculation Agent in its sole and absolute discretion. Payment will be made in such manner as shall be notified to Holders in accordance with Condition 10 of the Certificates as set out in the Base Prospectus.

The amount that Holders receive as a consequence of such early redemption may be less than the initial capital invested per Certificate and even zero. Holders who choose to reinvest monies received as a consequence of early redemption of the Certificates may be able to do so only in securities with a lower yield than the redeemed Certificates.

Issuer and Guarantor Risk

Certificates are unsecured obligations: The Certificates retention of value is dependent not only on the development of the value of the Underlying(s), but also the creditworthiness of the Issuer and the Guarantor, which may change over the term of the product. The Certificates are direct unsecured obligations of the Issuer and will rank *pari passu* with all other direct unsecured obligations of the Issuer. The obligations of the Guarantor under the Guarantee are unsecured obligations of the Guarantor and will rank *pari passu* with all its other present and future unsecured obligations, subject as may from time to time be mandatory under French law.

In addition, the Issuer's and the Guarantor's ability to fulfil their obligations under the Certificates may be affected by certain other factors, including liquidity risks, market risks, credit risks, cross-border and foreign exchange risks, operational risks, legal and regulatory risks and competition risks.

Secondary Market Risks

Under normal market conditions, the market maker appointed by the Issuer intends but is not obliged to maintain a secondary market on a regular basis throughout the life of the product. Neither the Issuer nor the Guarantor nor the market maker appointed by the Issuer is under any obligation to provide bid- or ask-prices for a specific order or volume and there is no commitment on a specific liquidity or on a specific market making spread. Hence investors cannot rely on being able to purchase or sell the product on a specific date or at a specific price.

Market Risk

The market value of, and expected return on, the Certificates may be influenced by a number of factors, some or all of which may be unpredictable (and which may offset or magnify each other), such as (i) the development of the value of the Underlying(s) (ii) economic, financial, political and regulatory or judicial events that affect the Issuer, the Guarantor, the Underlying(s) or financial markets generally, (iii) interest and yield rates in the markets generally, (iv) the time remaining until the Redemption Date (v) the creditworthiness of the Issuer and the Guarantor and (vii) foreign exchange rates.

Additional Risks

In addition, investors should read the section in the Base Prospectus entitled 'Risk Factors'.



Legal Notice

Product documentation

This Termsheet is for information purposes only and is only a summary of the key terms of the product. It is not a prospectus within the meaning of Articles 652a and 1156 of the Swiss Code of Obligations. This Termsheet is not an offer to buy the securities described herein. The Final Termsheet shall include the information required for a definitive simplified prospectus pursuant to former Article 5 CISA, taking into consideration article 95 of the Federal Act on Financial Services (FinSA) and article 111 of the Ordinance on Financial Services (FinSO), and will be available no later than on the Commencement Date. Reference should always be made to the base prospectus dated 23 September 2022, as supplemented from time to time (the "**Base Prospectus**"), which shall be read together with the Final Terms, which together contain the only legally binding terms and conditions and other information related to this product. The Base Prospectus, the Final Terms and the Termsheet can be obtained free of charge from: BNP PARIBAS SA, Paris, Zurich Branch, Paris, Succursale de Zurich. Written or oral requests for such documents should be directed to the BNP PARIBAS SA, Paris, Zurich Branch, Paris, Succursale de Zurich, Selnaustrasse 16, P.O. Box, 8022 Zurich, Switzerland or may be obtained by telephone (+41 58 212 6394). In addition, copies of any documents incorporated by reference will be made available, along with the Base Prospectus, for viewing on the website of BNP Paribas at the following address: www.bnpparibasmarkets.ch or any other website specified in the applicable Final Terms.

Publication

If there are any unforeseen changes to the conditions for the securities (the "**Securities**") during their term, these will be notified to the holders of the Securities ("**Holders**") in accordance with the Terms and Conditions. All notifications to Holders concerning the products and adjustments to the product terms are published through the website www.bnpparibasmarkets.ch.

Important Information

BNP Paribas is not providing the recipients of this document with any investment advice or recommendation to enter into any potential transaction.

This document should be read together with the Base Prospectus for the Securities and the applicable Final Terms for the Securities (when available) and these documents prevail over any prior communications or materials relating to the terms of the Securities. Potential investors should carefully read the sections headed "Risk Factors" in the Base Prospectus and the Final Terms for a full description of the potential risks associated with the Securities, and "Offering and Sale", for certain limitations on the purchase and onward sales of the Securities.

Any reference to an Issue Price in this document is not necessarily an expression of the market value of the Securities. Actual prices will depend on market conditions at the time the transaction is concluded. You should conduct your own independent analysis or seek independent advice as to any market value of the Securities. Please note that there can be conflicts of interests between BNP Paribas and potential investors (see below) and BNP Paribas can therefore not assume any responsibility for the financial consequences of your investment decision, which must be independent. BNP Paribas requires that you undertake your own independent due diligence and avail yourself of your own advisors in order to assess the suitability of the Securities in relation to your own financial objectives. Accordingly, if you decide to purchase the Securities, you will be deemed to understand and accept the terms, conditions and risks associated with the Securities. You will also be deemed to act for your own account, to have made your own independent decision to purchase the Securities and to declare that such transaction is appropriate for you based upon your own judgment the advice from such advisers as you have deemed necessary to consult.

Each Holder shall also be deemed to assume and be responsible for any and all taxes of any jurisdiction or governmental or regulatory authority and should consult their own tax advisers in this respect. You should note and assess for the purposes of any investment decision that members of the BNP Paribas group may face possible conflicts of interest in connection with certain duties under the Securities, such as trading in an underlying for their own account or for the account of others, receiving fees in a number of capacities or taking market views which are not consistent with the objective of the Securities.

No action has been or will be taken in any other jurisdiction than Switzerland that would, or is intended to permit a public offering of the Securities.

Investors should note that BNP Paribas acting as Guarantor is licensed as a credit institution in France and as such is subject to the new resolution regime introduced by the EU Bank Recovery and Resolution Directive of 15 May 2014. This new regulation, among others, gives resolution authorities the power to amend the key terms of the Guarantee, to reduce the amounts payable by the Guarantor under the terms of the Guarantee (including a reduction to zero) and convert the amounts due under the Guarantee into shares or other securities. You may not be able to recover all or even part of the amount due under the Certificates (if any) from the Guarantor under the Guarantee or you may receive a different security issued by the Guarantor (or another person) in place of the amount (if any) due to you under the Certificates by the Issuer, which may be worth significantly less than the amount due to you under the Certificates at expiry.

Selling Restrictions

As further set out in the Base Prospectus, the Securities may not be offered or sold in the United States or to U.S. persons at any time (as defined in regulation S under the U.S. Securities Act of 1933 or the U.S. internal revenue code). The Securities have not been and will not be registered under the U.S. Securities Act of 1933, as amended, or the securities laws of any state in the United States, and are subject to U.S. tax requirements. In purchasing the Securities you represent and warrant that you are neither located in the United States nor a U.S. person and that you are not purchasing for the account or benefit of any such person. The



Securities may not be offered, sold, transferred or delivered without compliance with all applicable securities laws and regulations. Further selling restrictions, including the European Economic Area, France and the Netherlands, are set out in the Base Prospectus.

We hereby inform you that conversations on the numbers provided are recorded. We assume that when calling you are in agreement with this business practice.