



Termsheet

DAX Mini-Future Long

Valor: 139904849; ISIN: CH1399048490
SSPA Product Type: Mini-Futures (2210)

www.bnpparibasmarkets.ch | markets.ch@bnpparibas.com | +41 (0) 58 212 6850

This document constitutes marketing material pursuant to Article 68 of the Swiss Federal Act on Financial Services (FinSA).

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 (CISA) 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 Long 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 Long the Holder profits from rising prices of the Underlying. A Mini-Future Long 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: A+) (on an unsecured basis)
Calculation Agent	BNP Paribas Financial Markets S.N.C., 20 boulevard des Italiens 75009 Paris, France
Principal Security Agent	BNP Paribas, 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 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	100 (100 Mini-Future(s) control(s) 1 Underlying)
Settlement Currency	CHF
Issue Price per Certificate	CHF 3.86
Trade Date	November 20 th , 2024
Issue Date	November 21 st , 2024
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	DAX, Reuters RIC: .GDAXI , Bloomberg Code: DAX Index								
Dividends	Applicable								
Underlying Currency	EUR								
Underlying Exchange	Deutsche Börse AG (XETRA)								
Initial Financing Level	EUR 18,699.5074								
Initial Leverage	46.31								
Financing Level Currency	EUR								
Financing Level Rounding Rule	Upwards to the next 0.0001 unit(s) the Underlying is quoted in								
Initial Stop-Loss-Level	EUR 18,980								
Initial Stop-Loss-Buffer	1.50% 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	Upwards to the next 10 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	5% (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><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 plus 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 plus 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 plus 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	<p>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:</p> <p>Current Financing Level + Current Stop-Loss-Buffer</p> <p>Rounded upwards in accordance with the Stop-Loss Rounding Rule.</p>
Current Stop-Loss-Buffer	<p>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.</p>
Stop-Loss Event	<p>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 lower than the Current Stop-Loss-Level. A Stop-Loss Event will override both an Issuer's Termination Right and a Holder's Put Option.</p>
Stop-Loss Termination Reference Price	<p>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.</p>
Final Reference Price	<p>In case of Holder's Put Option and Issuer's Termination, the official closing level 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.</p>
Valuation Time	<p>The time with reference to which the index sponsor calculates and publishes the official closing level of the Underlying.</p>
Conversion Rate	<p>The exchange rate between the Financing Level Currency and the Settlement Currency on the relevant calculation day, as determined by the Calculation Agent.</p>
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> <p>$\text{Max} [0 ; (\text{Final Reference Price} - \text{Current Financing Level}) / \text{Ratio}]$, converted into the Settlement Currency at the prevailing Conversion Rate</p>
Futures or Options Exchange	<p>Eurex</p>
Local Business Day Centre	<p>Zurich</p>
Relevant Business Day	<p>Exchange Business Day</p>
Business Day Convention	<p>Following Business Day</p>
Payment Business Days	<p>Zurich</p>
Governing Law	<p>French law</p>
Jurisdiction	<p>The jurisdiction of the Paris Court of Appeal (Cour d'Appel de Paris)</p>
Security	<p>Guarantee of Guarantor, subject to French law and jurisdiction of the Paris Court of Appeal (Cour d'Appel de Paris)</p>
Listing	<p>None</p>
Swiss Offering	<p>The Certificates qualify for distribution to non-qualified investors in Switzerland</p>
Fees	<p>Not applicable (included in the Financing Spread)</p>
Distribution Fees	<p>None are paid</p>
Relevant Clearing System / Form	<p>SIX SIS Ltd. / Uncertificated Securities</p>
Minimum Investment, Minimum Trading Size, Minimum Exercise	<p>1 Certificate and multiples of 1 thereafter</p>
Swiss Tax Information	<p>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</p>



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

Risk tolerance

Due to the leverage effect, the value of the Mini-Future Long will fluctuate more than the value of the Underlying. An investment in a Mini-Future Long therefore bears a higher risk than a direct one to one 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 investment in the Underlying in order to achieve a higher profit potential. The value of a Mini-Future Long 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 Long benefits disproportionately from a positive price performance of the Underlying. The profit potential for a Mini-Future Long is unlimited. The value of a Mini-Future Long 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 Long loses value over time. A Mini-Future Long has no fixed maturity, but it terminates automatically if the Underlying price reaches or goes below 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 Long, which is significantly greater than it would be for a direct one to one 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 Long 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.

Index Linked Risks

An investment in Certificates linked to an Index entails significant risks not associated with an investment in a conventional debt security. On redemption Holders will receive an amount determined by reference to the value of the Underlying, the Conversion Rate and the leverage. Potential investors should take advice accordingly. The movements in the level of an index may be subject to significant fluctuations that may or may not correlate with other indices, changes in interest rates or currencies and the timing of changes in the relevant level of the index may affect the actual return to Holders, even if the average level of the index is consistent with their expectations.

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 (vi) 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 constitutes marketing material pursuant to Article 68 of the FinSA, is for information purposes only and is only a summary of the key terms of the product.

This document is not intended as a substitute for a recommendation that is provided by a bank or financial adviser before entering into a transaction with derivative instruments, and does not constitute a prospectus within the meaning of former Article 652a and former Article 1156 of the Swiss Code of Obligation, a simplified prospectus within the meaning of former Article 5 of the Swiss Federal Act on Collective Investment Schemes (CISA), a prospectus within the meaning of Article 35 et seq. of the FinSA, nor a key information document for financial instruments within the meaning of Article 58 et seq. of the FinSA or any equivalent document. Nor is it intended to serve as a basis to decide to enter into transactions in products or financial interests that are described in this document. Reference should always be made to the 20 September 2024 base prospectus, 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, any key information document and the Termsheet can be obtained free of charge from: BNP Paribas, Paris, Zurich Branch. Written or oral requests for such documents should be directed to the BNP Paribas, Paris, Zurich Branch, Selnaustrasse 16, P.O. Box, 8022 Zurich, Switzerland or may be obtained by telephone (+41 58 212 6339). In addition, copies of any documents incorporated by reference will be made available, along with the respective Base Prospectus, any key information document, the Termsheet and/or the Final Terms, for viewing on the website of BNP Paribas at the following address, www.bnpparibasmarkets.ch.

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 resolution regime introduced by the EU Bank Recovery and Resolution Directive of 15 May 2014. This 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 and UK, are set out in the Base Prospectus.

Index Disclaimer

Neither the Issuer nor the Guarantor shall have any liability for any act or failure to act by an Index Sponsor in connection with the calculation, adjustment or maintenance of an Index. Except as disclosed prior to the Issue Date, neither the Issuer, the Guarantor nor their affiliates has any affiliation with or control over an Index or Index Sponsor or any control over the computation, composition or dissemination of an Index. Although the Calculation Agent will obtain information concerning an Index from publicly available sources 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 the Issuer, the Guarantor, their affiliates or the Calculation Agent as to the accuracy, completeness and timeliness of information concerning an Index.

DAX® Index

This financial instrument is neither sponsored nor promoted, distributed or in any other manner supported by Deutsche Börse AG (the "Licensor"). The Licensor does not give any explicit or implicit warranty or representation, neither regarding the results deriving from the use of the Index and/or the Index Trademark nor regarding the Index value at a certain point in time or on a certain date nor in any other respect. The Index is calculated and published by the Licensor. Nevertheless, as far as admissible under statutory law the Licensor will not be liable vis-à-vis third parties for potential errors in the Index. Moreover, there is no obligation for the Licensor vis-à-vis third parties, including investors, to point out potential errors in the Index.

Neither the publication of the Index by the Licensor nor the granting of a license regarding the Index as well as the Index Trademark for the utilization in connection with the financial instrument or other securities or financial products, which one derived from the Index, represents a recommendation by the Licensor for a capital investment or contains in any manner a warranty or opinion by the Licensor with respect to the attractiveness of an investment in this product.

In its capacity as sole owner of all rights to the Index and the Index Trademark the Licensor has solely licensed to the issuer of the financial instrument and its affiliates the utilization of the Index and the Index Trademark as well as any reference to the Index and the Index Trademark in connection with the financial instrument.

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.