Third Supplement dated 25 May 2023

to the Warrant and Certificate Programme Base Prospectus dated 1 July 2022

BNP Paribas Issuance B.V.
(incorporated in The Netherlands)
(as Issuer)

BNP Paribas
(incorporated in France)
(as Issuer and Guarantor)
Warrant and Certificate Programme

This third supplement (the "**Third Supplement**") is supplemental to, and should be read in conjunction with the base prospectus dated 1 July 2022 (the "**Base Prospectus**"), the first supplement to the Base Prospectus dated 10 October 2022 (the "**First Supplement**") and the second supplement to the Base Prospectus dated 5 January 2023 (the "**Second Supplement**"), and, together with the First Supplement and the Second Supplement, the "**Previous Supplements**", in relation to the Warrant and Certificate Programme (the "**Programme**") of BNP Paribas Issuance B.V. ("**BNPP B.V.**") and BNP Paribas ("**BNPP**").

The Base Prospectus and the Previous Supplements constitute a base prospectus for the purposes of Article 8 of the Prospectus Regulation. **"Prospectus Regulation"** means Regulation (EU) 2017/1129 of 14 June 2017. The Authority for the Financial Markets ("**AFM**") in the Netherlands approved the Base Prospectus on 1 July 2022 and the First Supplement on 10 October 2022 and the Second Supplement on 5 January 2023. Application has been made to the AFM for approval of this Third Supplement in its capacity as competent authority. The AFM approved the Third Supplement on 25 May 2023.

Each of BNPP (in respect of itself and BNPP B.V.) and BNPP B.V. (in respect of itself) accept responsibility for the information contained in this Third Supplement, save that BNPP B.V. accepts no responsibility for the BNPP 2022 Universal Registration Document (in English) (as defined below), the 31 March 2023 Press Release (as defined below), and the updated disclosure in respect of BNPP. To the best of the knowledge of BNPP and BNPP B.V., the information contained herein is in accordance with the facts and this Third Supplement makes no omission likely to affect its import.

Unless the context otherwise requires, terms defined in the Base Prospectus, as amended by the Previous Supplements, shall have the same meanings when used in this Third Supplement.

To the extent that there is any inconsistency between (i) any statement in this Third Supplement and (ii) any statement in, or incorporated by reference in, the Base Prospectus, as amended by the Previous Supplements, the statement referred to in (i) above will prevail.

References in this Third Supplement to paragraphs of the Base Prospectus are to the Base Prospectus as amended by the Previous Supplements. References in this Third Supplement to page numbers in the Base Prospectus are to the page numbers in the Base Prospectus without taking into account any amendments made in the Previous Supplements.

A copy of this Third Supplement will be available on the website of BNP Paribas: (https://rates-globalmarkets.bnpparibas.com/gm/Public/LegalDocs.aspx).

This Third Supplement has been prepared in accordance with Article 23 of the Prospectus Regulation for the purposes of giving information which amends or is additional to the information already contained in the Base Prospectus, as amended by the Previous Supplements.

Following the publication of the BNPP 2022 Universal Registration Document, including the English version of the audited financial information of BNPP as at 31 December 2022 and the audit report thereon, and the publication of the BNPP First Amendment to the BNPP 2022 Universal Registration Document (in English), this Third Supplement has been prepared for the purposes of:

A. amending the sections of the Base Prospectus relating to the withdrawal right of investors stated in Article 23.2 of the Prospectus Regulation;

B. amending the "Risks" section;

C. incorporating by reference:

i. BNPP's *Document d'Enregistrement Universel au 31 décembre 2022 et rapport financier annuel* (in English) (the "**BNPP 2022 Universal Registration Document (in English)**");

ii. the press release dated 31 March 2023 issued by BNP Paribas relating to the launch of the first tranche of the share buyback programme planned for 2023 (the "**31 March 2023 Press Release »)**;

iii. the first *Amendement au Document d'Enregistrement Universel 2022* dated 3 May 2023 (the "**First Amendment to the BNPP 2022 Universal Registration Document (in English)**"); and

iv. giving disclosure in respect of a press release dated 31 March 2023 issued by BNP Paribas relating to the launch of the first tranche of the share buyback programme planned for 2023 (the "**Share Buyback Programme Press Release**");

D. amending the "Description of BNPP B.V." section;

E. amending the "Description of BNPP" section; and

F. amending the "General Information" section.

The amendments referred to in (A) above have been made to amend the duration of the withdrawal right of investors in accordance with Article 23.2 of the Prospectus Regulation. The incorporation by reference referred to in (C) above has been made to update the disclosure for BNPP. The amendments referred to in (B) above have been made to update the risk factors relating to BNPP. The amendments referred to in (D), (E) and (F) above have been made to reflect the updated disclosure referred to in (C) above.

In accordance with Article 23.2 of the Prospectus Regulation, in the case of an offer of Securities to the public, investors who have already agreed to purchase or subscribe for Securities issued under the Programme before this Third Supplement is published, have the right, exercisable before the end of the period of two working days beginning with the working day after the date of publication of this Third Supplement to withdraw their acceptances. This right to withdraw shall expire by close of business on 25 May 2023. Investors can exercise their right to withdraw their acceptances by contacting the person from whom any such investor has agreed to purchase or subscribe for such Securities before the above deadline.

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AMENDMENTS TO THE SECTIONS RELATING TO THE WITHDRAWAL RIGHT OF INVESTORS

The "**IMPORTANT NOTICES**" section on pages 53 to 56 of the Base Prospectus of the Base Prospectus is amended as follows:

the second paragraph in the "**IMPORTANT NOTICES**" section, on page 53 of the Base Prospectus, is amended as follows:

"In accordance with Article ~~23(2a)~~ 23.2 of the Prospectus Regulation (as amended), investors who have already agreed to purchase or subscribe for Securities before ~~this Base Prospectus~~ a Supplement is published have the right, exercisable within ~~three (3)~~ two (2) working days after the publication of ~~this Base Prospectus~~ such Supplement, to withdraw their acceptances. "

The "**FORM OF FINAL TERMS**" section on pages 89 to 140 of the Base Prospectus is amended as follows:

the two paragraphs preceding the heading "PART A – CONTRACTUAL TERMS" in the "**FORM OF FINAL TERMS**" section, on page 90 of the Base Prospectus, are amended as follows:

"[Investors should note that if a supplement to or an updated version of the Base Prospectus referred to below is published at any time during the Offer Period (as defined below), such supplement or updated base prospectus, as the case may be, will be published and made available in accordance with the arrangements applied to the original publication of these Final Terms. Any investors who have indicated acceptances of the Offer (as defined below) prior to the date of publication of such supplement or updated version of the Base Prospectus, as the case may be (the "**Publication Date**"), have the right within [~~three~~ two]/[*specify longer period*] working days of the Publication Date to withdraw their acceptances.][4]

[Investors who, before the Base Prospectus is published, have already agreed to purchase or subscribe for the Securities which are the subject of the Non-exempt Offer, where the Securities have not yet been delivered to such investors, have the right, exercisable within the period of [~~three~~ two]/[*specify longer period*] working days after the publication of the Base Prospectus to withdraw their acceptances. Any investors who have indicated acceptances of the Offer (as defined below) prior to the date of publication of such supplement or updated version of the Base Prospectus, as the case may be (the "**Publication Date**"), have the right within ~~three~~ two working days of the Publication Date to withdraw their acceptances.]"

[4] Include in respect of issues of Securities where the offer period to retail investors spans a supplement to the Base Prospectus or an update to the Base Prospectus.

AMENDMENTS TO THE RISKS SECTION

The "**RISKS**" section on pages 12 to 52 of the Base Prospectus is amended as follows:

The section under the heading "**Risk Factors**" on page 12 of the Base Prospectus is amended with the following:

"Unless otherwise indicated, the information and financial elements contained in these risk factors specifically include the activity of ~~Bank of the West~~ BancWest to reflect a prudential ~~view~~ vision. They are, therefore, presented excluding the effects of the application of IFRS 5 on groups of assets and liabilities held for sale. ~~Chapter 3 of the BNPP 2021 Universal Registration Document (in English)~~ This document includes a reconciliation between the operational ~~view~~ vision presented excluding the application of IFRS 5 and the consolidated financial statements applying IFRS 5 in chapter 3. The main categories of risk inherent in ~~BNPP's~~ the BNP Paribas Group's business are presented below. They may be measured through risk-weighted assets or other quantitative or qualitative indicators, to the extent risk-weighted assets are not relevant (for example, for liquidity and funding risk).

In billions of euros	*Risk weighted assets (RWA)*	
	31 December 2022	31 December 2021
Credit risk	580	554
Counterparty credit risk	42	40
Securitisation risk in the banking book	16	14
Operational risk	62	63
Market risk	26	25
Amounts below the thresholds for deduction (subject to 250% risk weight)	20	18
TOTAL	745	714

More generally, the risks to which ~~BNPP~~ the BNP Paribas Group is exposed may arise from a number of factors related, among others, to changes in its macroeconomic or regulatory environment or factors related to the implementation of its strategy and its business.

The material risks specific to ~~BNPP's~~ the BNP Paribas Group's business, determined based on the circumstances known to the management as of the date of ~~the BNPP 2021 Universal Registration Document (in English),~~ this document are thus presented below under ~~seven~~ 7 main categories, in accordance with article 16 of Regulation (EU) No. 2017/1129, ~~known as "Prospectus 3" of 14 June 2017,~~ the provisions of which relating to risk factors came into force on 21 July 2019: credit risk, counterparty risk and securitisation risk in the banking book; operational risk; market risk; liquidity and funding risk; risks related to the macroeconomic and market environment; regulatory risks; and risks related to ~~BNPP's~~ the BNP Paribas Group's growth in its current environment.

~~BNPP's~~ The Group's risk management policies have been taken into account in assessing the materiality of these risks; in particular, risk-weighted assets factor in risk mitigation elements to the extent eligible in accordance with applicable banking regulations.

1. Credit risk, counterparty risk and securitisation risk in the banking book

~~BNPP's~~ BNP Paribas Group's credit risk is defined as the probability of a borrower or counterparty defaulting on its obligations to ~~BNPP~~ the BNP Paribas Group. Probability of default along with the recovery rate of the loan or debt in the event of default are essential elements in assessing credit quality. In accordance with the European Banking Authority recommendations, this category of risk also includes risks on equity investments, as well as those related to insurance activities. ~~As of~~ At 31 December ~~2021~~2022, ~~BNPP's~~ the BNP Paribas Group's credit risk exposure broke down as follows: corporates (~~41%~~42%), central governments and central banks (~~27%~~26%), retail customers (25%), credit institutions (4%), other items (2%) and equities (1%). ~~As of~~ At 31 December ~~2021~~2022, ~~32%~~33% of ~~BNPP's~~ the BNP Paribas Group's credit exposure was comprised of exposures in France, ~~16%~~15% in Belgium and Luxembourg, 9% in Italy, 19% in other European countries, 13%

in North America, 6% in Asia and 5% in the rest of the world. ~~BNPP's~~ The BNP Paribas Group's risk-weighted assets subject to this type of risk amounted to ~~€554~~ EUR 580 billion at 31 December ~~2021~~ 2022, or 78% of the total risk-weighted assets of ~~BNPP~~ the BNP Paribas Group, compared to ~~€527 billion at 31 December 2020 and €591 billion at 30 September 2022, or~~ EUR 554 billion representing ~~77%~~78% of the total risk-weighted assets ~~of BNPP~~ at 31 December 2021.

~~BNPP's~~ BNP Paribas Group's counterparty risk arises from its credit risk in the specific context of market transactions, investments, and/or settlements. ~~BNPP's~~ BNP Paribas Group's exposure to counterparty risk, excluding CVA (Credit Valuation Adjustment ~~("CVA")~~) risk ~~as of~~ at 31 December ~~2021~~2022, is comprised of: ~~44%~~42% ~~in~~ to the corporate sector, ~~19%~~12% ~~in~~ to governments and central banks, 13% ~~in~~ to credit institutions and investment firms, and ~~24%~~33% ~~in~~ to clearing houses. By product, ~~BNPP's~~ BNP Paribas Group's exposure, excluding CVA *("Credit Valuation Adjustment")* risk, ~~as of~~ at 31 December ~~2021~~2022 ~~was~~ is comprised of: ~~51%~~47% ~~in over-the-counter ("OTC")~~ derivatives, ~~33%~~29% in repurchase transactions and securities lending/borrowing, ~~10%~~17% in listed derivatives and ~~6%~~7% in contributions to the clearing houses' default funds. The amount of this risk varies over time, depending on fluctuations in market parameters affecting the potential future value of the covered transactions. In addition, CVA *("Credit Valuation Adjustment")* risk measures the risk of losses related to CVA volatility resulting from fluctuations in credit spreads associated with the counterparties ~~in respect of~~ to which ~~BNPP~~ the BNP Paribas Group is subject to risk. The risk-weighted assets subject to counterparty credit risk amounted to ~~€40~~ EUR 42 billion at 31 December ~~2021~~ 2022, or ~~representing~~ 6% of ~~BNPP's~~ the total risk-weighted assets of the BNP Paribas Group ~~total risk-weighted assets,~~ compared to ~~€41~~ EUR 40 billion ~~at 31 December 2020 and €52 billion at 30 September 2022, or~~ representing ~~7%~~ 6% of the total risk-weighted assets ~~of BNPP~~ at 31 December 2021.

Securitisation risk in the banking book: ~~S~~securitisation is a transaction or arrangement by which the credit risk associated with a liability or set of liabilities is subdivided into tranches. Any commitment made by ~~BNPP~~ the BNP Paribas Group under a securitisation structure (including derivatives and liquidity lines) is considered to be a securitisation. The bulk of ~~BNPP's~~ the BNP Paribas Group's commitments are in the prudential banking portfolio. Securitised exposures are essentially those generated by ~~BNPP~~ the BNP Paribas Group. The securitisation positions held or acquired by ~~BNPP~~ the BNP Paribas Group may also be categorised by its role: of the positions as at 31 December ~~2021~~2022, ~~BNPP~~ BNP Paribas was originator of ~~50%~~43%, was sponsor of ~~31%~~34% and was investor of ~~19%~~23%. The risk-weighted assets subject to this type of risk amounted to ~~€14~~ EUR 16 billion at 31 December ~~2021, representing 2% of BNPP's total risk-weighted assets, unchanged compared to 31 December 2020 and €15 billion at 30 September~~ 2022, or 2% of the total risk-weighted assets of ~~BNPP~~ the BNP Paribas Group compared to EUR 14 billion representing 2% of the total risk-weighted assets at 31 December 2021.

1.1 *A substantial increase in new provisions or a shortfall in the level of previously recorded provisions exposed to credit risk and counterparty risk could adversely affect ~~BNPP's~~ the BNP Paribas Group's results of operations and financial condition.*

Credit risk and counterparty risk impact ~~BNPP's~~ the BNP Paribas Group's consolidated financial statements when a customer or counterparty is unable to honour its obligations and when the book value of these obligations in ~~BNPP's~~ the BNP Paribas Group's records is positive. The customer or counterparty may be a bank, a financial institution, an industrial or commercial enterprise, a government or a government entity, an investment fund, or a natural person. If the default rate of customers or counterparties increases, ~~BNPP~~ the BNP Paribas Group may have to record increased charges or provisions in respect of irrecoverable or doubtful loans (Stage 3) or of performing loans (Stages 1 and 2) in response to a deterioration in economic conditions or other factors, which may affect its profitability.

As a result, in connection with its lending activities, ~~BNPP~~ the BNP Paribas Group regularly establishes provisions, which are recorded on its income statement in the line item Cost of Risk. ~~These provisions amounted to €2.925 billion at 31 December 2021, representing 34 basis points of outstanding customer loans (compared with 66 basis points at 31 December 2020 and 39 basis points at 31 December 2019). These provisions amounted to €2.192 billion at 30 September 2022, representing 31 basis points of outstanding customer loans (compared with 37 basis points at 30 September 2021). The significant increase in these provisions in 2020 reflects the economic consequences of the health crisis and is an example of the materialisation of this risk, while their decrease in 2021 is explained by a high base in 2020, a limited number of defaults and write-backs of provisions on performing loans. In the first nine months of 2022, the cost of risk was impacted by a €710 million provision for ex-ante expected losses (levels 1 and 2) related.~~ In 2022, these provisions amounted to EUR 2,965 billion compared to EUR 2,925 billion in 2021. This amount was due in particular to the exceptional impact of the "borrower assistance law" in Poland (see section 5.3 - *Given the global scope of its activities, the BNP Paribas Group is exposed to country risk and to changes in the political, macroeconomic or financial contexts of a region or country*), which led to the recording of an exceptional negative impact in the third quarter of EUR 204 million. Provisions recorded on performing loans (Stages 1 and 2) amounted to 463 million euro in the year-ended 31 December 2022 and related in particular to the indirect effects of the invasion of Ukraine and the rise in inflation and interest rates, partially offset by ~~a~~ write-backs ~~of provisions~~ related to the health crisis ~~of €187 million~~ and the effects of changes in methods to align with European standards for EUR 251 million in the fourth quarter of 2022.

~~BNPP's~~ The BNP Paribas Group's overall level of provisions is based on its assessment of prior loss experience, the volume and type of lending being conducted, industry standards, past due loans, economic conditions and other factors related to the recoverability of various loans or statistical analysis based on scenarios applicable to asset classes. The BNP Paribas Group seeks to establish an appropriate level of provisions.

Although ~~BNPP~~ the BNP Paribas Group seeks to establish an appropriate level of provisions, its lending businesses may have to increase their provisions for loan losses or sound receivables substantially in the future as a result of deteriorating economic conditions or other causes. For example, provisions increased in 2020 primarily due to the early ex-ante recognition of potential losses related to the effects of the health crisis (Stages 1 and 2 provisions on performing loans in accordance with IFRS 9). Any significant increase in provisions for loan losses or a significant change in ~~BNPP's~~ the BNP Paribas Group's estimate of the risk of loss inherent in its portfolio of non impaired loans, as well as the occurrence of loan losses in excess of the related provisions, could have a material adverse effect on ~~BNPP's~~ the BNP Paribas Group's results of operations and financial condition.

~~For reference, at 31 December 2021, the ratio of doubtful loans to total loans outstanding was 2.0% and the coverage ratio of these doubtful commitments (net of guarantees received) by provisions was 73.6%, against 2.1% and 71.5%, respectively, as at 31 December 2020. At 30 September.~~ For reference, at 31 December 2022, the ratio of doubtful loans to total loans outstanding was 1.7% and the coverage ratio of these doubtful commitments (net of guarantees received) by provisions was ~~73.1%~~ 72.5%, against 2.0% and 73.6%, respectively, as at 31 December 2021~~. These two ratios are defined in Chapter 5.1 (*Key Figures*) of the BNPP 2021 Universal Registration Document (in English).~~

While ~~BNPP~~ the BNP Paribas Group seeks to reduce its exposure to credit risk and counterparty risk by using risk mitigation techniques such as collateralisation, obtaining guarantees, entering into credit derivatives and entering into netting agreements, it cannot be certain that these techniques will be effective to offset losses resulting from counterparty defaults that are covered by these techniques. Moreover, ~~BNPP~~ the BNP Paribas Group is also exposed to the risk of default by the party providing the credit risk coverage (such as a counterparty in a derivative or a loan insurance contract) or to the risk of loss of value of any collateral. In addition, only a portion of ~~BNPP's~~ the BNP Paribas Group's overall credit risk and counterparty risk is covered by these techniques. Accordingly, ~~BNPP~~ the BNP Paribas Group has very significant exposure to these risks.

1.2 *The soundness and conduct of other financial institutions and market participants could adversely affect ~~BNPP~~ the BNP Paribas Group.*

~~BNPP's~~ The BNP Paribas Group's ability to engage in financing, investment and derivative transactions could be adversely affected by the soundness of other financial institutions or market participants. Financial institutions are interrelated as a result of trading, clearing, counterparty, funding or other relationships. As a result, defaults by one or more ~~s~~States or financial institutions, or even rumours or questions about, one or more financial institutions, or the financial services industry generally, may lead to market wide liquidity problems and could lead to further losses or defaults. ~~BNPP~~ The BNP Paribas Group has exposure to many counterparties in the financial industry, directly and indirectly, including clearing houses, brokers and dealers, commercial banks, investment banks, mutual and alternative investment funds, and other institutional clients with which it regularly executes transactions. ~~BNPP~~ The BNP Paribas Group may also be exposed to risks related to the increasing involvement in the financial sector of players and the introduction of new types of transactions subject to little or no regulation (e.g., unregulated funds, trading venues or crowdfunding platforms). Credit and counterparty risks could be exacerbated if the collateral held by ~~BNPP~~ the BNP Paribas Group cannot be realised, it decreases in value~~,~~ or it is liquidated at prices not sufficient to recover the full amount of the loan or derivative exposure due to ~~BNPP~~ the BNP Paribas Group or in the event of the failure of a significant financial market participant such as a central counterparty.

For reference, counterparty risk exposure related to financial institutions was ~~€~~ EUR ~~29~~28 billion at 31 December ~~2021~~2022, or 13% of ~~BNPP's~~ the BNP Paribas Group's total counterparty risk exposure, and counterparty risk exposure related to clearing houses was ~~€~~ EUR ~~54~~73billion, or ~~24%~~33%of ~~BNPP's~~ the BNP Paribas Group's total counterparty risk exposure.

In addition, fraud or misconduct by financial market participants can have a material adverse effect on financial institutions due in particular to the interrelated nature of the financial markets. An example is the fraud perpetrated by Bernard Madoff that came to light in 2008, as a result of which numerous financial institutions globally, including ~~BNPP~~ the BNP Paribas Group, announced losses or exposure to losses in substantial amounts. ~~BNPP~~ The BNP Paribas Group remains the subject of various claims in connection with the Madoff matter; see ~~Note 6.~~note 7.b "*Legal proceedings and arbitration*" to ~~the~~ its consolidated financial statements for the ~~period~~ year ended ~~30 June~~ 31 December 2022, ~~which are set out in the Third Amendment to the BNPP 2021 Universal Registration Document (in English)~~.";

Losses resulting from the risks summarised above could materially and adversely affect ~~BNPP's~~ the BNP Paribas Group's results of operations.

2. Operational Risk

~~BNPP's~~ BNP Paribas Group's operational risk is the risk of loss resulting from failed or inadequate internal processes (particularly those involving personnel and information systems) or external events, whether deliberate, accidental or natural (floods, fires, earthquakes, terrorist attacks, etc.). ~~BNPP's~~ BNP Paribas Group's operational risks cover fraud, Human Resources risks, legal and reputational risks, non-compliance risks, tax risks, information systems risks, risk of providing inadequate financial services (conduct risk), risk of failure of operational processes including credit processes, or from the use of a model (model risk), as well as potential financial consequences related to reputation risk management. From ~~2013~~2014 to ~~2021~~2022, ~~BNPP's~~ BNP Paribas Group's main type of incidents involving operational risk were in "Clients, products and business practices", which represents more than half of the total financial impact, largely as a result of ~~BNPP's~~ the BNP Paribas Group's agreement with US authorities regarding its review of certain dollar transactions concluded in June 2014. Process failures, including errors in execution or processing of transactions and external fraud are respectively the second and third types of incidents with the highest financial impact. Between ~~2013~~2014 to ~~2021~~2022, other types of risk in operational risk consisted of external fraud (14%), business disruption and systems failure (3%), employment practices and workplace safety (2%), internal fraud (1%) and damage to physical assets (1%).

The risk-weighted assets subject to this type of risk amounted to ~~€63~~ EUR 62 billion at 31 December ~~2021~~ 2022, representing ~~9%~~ 8% of ~~BNPP's~~ the BNP Paribas Group's total risk-weighted assets, compared to ~~€71~~ EUR 63 billion ~~at 31 December 2020 and €61 billion at 30 September 2022, or~~ representing 9% ~~8%~~ of ~~the~~ total risk-weighted assets ~~of BNPP~~ at 31 December 2022.

2.1 *~~BNPP's~~ The BNP Paribas Group's risk management policies, procedures and methods may leave it exposed to unidentified or unanticipated risks, which could lead to material losses.*

~~BNPP~~ The BNP Paribas Group has devoted significant resources to developing its risk management policies, procedures and assessment methods and intends to continue to do so in the future. Nonetheless, ~~BNPP's~~ the BNP Paribas Group's risk management techniques and strategies may not be fully effective in mitigating its risk exposure in all economic and market environments or against all types of risk, particularly risks that ~~BNPP~~ the BNP Paribas Group may have failed to identify or anticipate. ~~BNPP's~~ The BNP Paribas Group's ability to assess the creditworthiness of its customers or to estimate the values of its assets may be impaired if, as a result of market turmoil such as that experienced in recent years, the models and approaches it uses become less predictive of future behaviour, valuations, assumptions or estimates. Some of ~~BNPP's~~ the BNP Paribas Group's qualitative tools and metrics for managing risk are based on its use of observed historical market behaviour. ~~BNPP~~ The BNP Paribas Group applies statistical and other tools to these observations to arrive at quantifications of its risk exposures. The process ~~BNPP~~ the BNP Paribas Group uses to estimate losses inherent in its credit exposure or estimate the value of certain assets requires difficult, subjective, and complex judgments, including forecasts of economic conditions and how these economic predictions might impair the ability of its borrowers to repay their loans or impact the value of assets, which may, during periods of market disruption or substantial uncertainty, be incapable of accurate estimation and, in turn, impact the reliability of the process. These tools and metrics may fail to predict future risk exposures, e.g.~~,~~ if ~~BNPP~~ the BNP Paribas Group does not anticipate or correctly evaluate certain factors in its statistical models, or upon the occurrence of an event deemed extremely unlikely by the tools and metrics. This would limit ~~BNPP's~~ the BNP Paribas Group's ability to manage its risks. ~~BNPP's~~ The BNP Paribas Group's losses could therefore be significantly greater than the historical measures indicate. In addition, ~~BNPP's~~ the BNP Paribas Group's quantified modelling does not take all risks into account. Its more qualitative approach to managing certain risks could prove insufficient, exposing it to material unanticipated losses.

2.2 *An interruption in or a breach of ~~BNPP's~~ the BNP Paribas Group's information systems may cause substantial losses of client or customer information, damage to ~~BNPP's~~ the BNP Paribas Group's reputation and result in financial losses.*

As with most other banks, ~~BNPP~~ the BNP Paribas Group relies heavily on communications and information systems to conduct its business. This dependency has increased with the spread of mobile and online banking services, the development of cloud computing, and more generally the use of new technologies. Any failure or interruption or breach in security of these systems could result in failures or interruptions in ~~BNPP's~~ the BNP Paribas Group's customer relationship management, general ledger, deposit, servicing and/or loan organisation systems or could cause ~~BNPP~~ the BNP Paribas Group to incur significant costs in recovering and verifying lost data. ~~BNPP~~ The BNP Paribas Group cannot provide assurances that such failures or interruptions will not occur or, if they do occur, that they will be adequately addressed.

In addition, ~~BNPP~~ the BNP Paribas Group is subject to cybersecurity risk, or risk caused by a malicious and/or fraudulent act, committed virtually, with the intention of manipulating information (confidential data, bank/insurance, technical or strategic), processes and users, in order to cause material losses to ~~BNPP's~~ the BNP Paribas Group's subsidiaries, employees, partners and clients and/or for the purpose of extortion (ransomware). An increasing number of companies (including financial institutions) have in recent years experienced intrusion attempts or even breaches of their information technology security, some of which have involved sophisticated and highly targeted attacks on their computer networks. Because the techniques used to obtain unauthorised access, disable or degrade service, steal confidential data or sabotage information systems have become more sophisticated, change frequently and often are not recognised until launched against a target, ~~BNPP~~ the BNP Paribas Group and its third party service providers may be unable to anticipate these techniques or to implement in a timely manner effective and efficient countermeasures.

Any failures of or interruptions in ~~BNPP's~~ the BNP Paribas Group's information systems or those of its providers and any subsequent disclosure of confidential information related to any client, counterparty or employee of ~~BNPP~~ the BNP Paribas Group (or any other person) or any intrusion or attack against its communication system could cause significant losses and have an adverse effect on ~~BNPP's~~ the BNP Paribas Group's reputation, financial condition and results of operations.

Regulatory authorities now consider ~~cybersecurity as~~ cybercriminality to be a growing systemic risk for the financial sector. They have stressed the need for financial institutions to improve their resilience to cyber-attacks by strengthening internal IT monitoring and control procedures. A successful cyber-attack could therefore expose ~~BNPP~~ the Group to a regulatory fine, especially should any personal data from customers be lost.

Moreover, ~~BNPP~~ the BNP Paribas Group is exposed to the risk of operational failure or interruption of a clearing agent, foreign markets, clearing houses, custodian banks or any other financial intermediary or external service provider used by ~~BNPP~~ the BNP Paribas Group to execute or facilitate financial transactions. Due to its increased interaction with clients, ~~BNPP~~ the BNP Paribas Group is also exposed to the risk of operational malfunction of the latter's information systems. ~~BNPP's~~ The BNP Paribas Group's communications and data systems and those of its clients, service providers and counterparties may also be subject to malfunctions or interruptions as a result of cyber-crime or cyber-terrorism. ~~BNPP~~ The BNP Paribas Group cannot guarantee that these malfunctions or interruptions in its own systems or those of other parties will not occur or that in the event of a cyber-attack, these malfunctions or interruptions will be adequately resolved. These operational malfunctions or interruptions accounted for an average of 3% of operational risk losses over the ~~2013-2021~~ 2014-2022 period.

2.3 *Reputational risk could weigh on ~~BNPP's~~ the BNP Paribas Group's financial strength and diminish the confidence of clients and counterparties in it.*

Considering the highly competitive environment in the financial services industry, a reputation for financial strength and integrity is critical to ~~BNPP's~~ the BNP Paribas Group's ability to attract and retain customers. ~~BNPP's~~ The BNP Paribas Group's reputation could be harmed if the means it uses to market and promote its products and services were to be deemed ~~to be~~ inconsistent with client interests. ~~BNPP's~~ The BNP Paribas Group's reputation could also be damaged if, as it increases its client base and the scale of its businesses, its overall procedures and controls dealing with conflicts of interest fail, or appear to fail, to address them properly. Moreover, ~~BNPP's~~ the BNP Paribas Group's reputation could be damaged by employee misconduct, fraud or misconduct by financial industry participants to which ~~BNPP~~ the BNP Paribas Group is exposed, a restatement of, a decline in, or corrections to, its results, as well as any adverse legal or regulatory action, such as the settlement ~~BNPP~~ the BNP Paribas Group entered into with the ~~U.S.~~ US authorities in 2014 for violations of ~~U.S.~~ US laws and regulations regarding economic sanctions. The loss of business that could result from damage to ~~BNPP's~~ the BNP Paribas Group's reputation could have an adverse effect on its results of operations and financial position.

3. Market risk

~~BNPP's~~ The BNP Paribas Group's market risk is the risk of loss of value caused by an unfavourable trend in prices or market parameters. The parameters affecting ~~BNPP's~~ the BNP Paribas Group's market risk include, but are not limited to, exchange rates, prices of securities and commodities (whether the price is directly quoted or obtained by reference to a comparable asset), the price of derivatives on an established market and all benchmarks that can be derived from market quotations such as interest rates, credit spreads, volatility or implicit correlations or other similar parameters.

~~BNPP~~ BNP Paribas Group is exposed to market risk mainly through trading activities carried out by the business lines of its Corporate & Institutional Banking ("~~"~~CIB"~~"~~) operating division, primarily in Global Markets, which represented ~~14.8%~~ 17% of ~~BNPP's~~ the BNP Paribas Group's revenue in ~~2021~~ 2022. ~~BNPP's~~ BNP Paribas Group's trading activities are directly linked to economic relations with clients of these business lines, or indirectly as part of its market making activity.

In addition, the market risk relating to ~~BNPP's~~ the BNP Paribas Group's banking activities covers its interest rate and foreign exchange rate risks in connection with its activities as a banking intermediary. The "operating" foreign exchange risk exposure relates to net earnings generated by activities conducted in currencies other than the functional currency of the entity concerned. The "structural" foreign exchange risk position of an entity relates to investments in currencies other than the functional currency. In measuring interest rate risk, ~~BNPP~~ the BNP Paribas Group defines the concepts of standard rate risk and structural rate risk as the following: the standard rate risk corresponds to the general case, namely when it is possible to define the most appropriate hedging strategy for a given transaction, and the structural rate risk is the interest rate risk for equity and non-interest-bearing current accounts.

If ~~BNPP's~~ the BNP Paribas Group's hedging strategies prove ineffective or provide only a partial hedge, ~~BNPP~~ the BNP Paribas Group could incur losses. BNP Paribas' market risk based on its activities is measured by "Value at Risk" ("VaR"), and various other market indicators (stressed VaR, Incremental Risk Charge, Comprehensive Risk Measure for credit correlation portfolio) as well as by stress tests and sensitivity analysis compared with market limits.

The risk-weighted assets subject to this type of risk amounted to ~~€25~~ EUR 26 billion at 31 December ~~2021~~ 2022, representing 3% of ~~BNPP's~~ the BNP Paribas Group's total risk-weighted assets, compared to €25 ~~€25~~ EUR 25 billion~~,~~ representing ~~4% of BNPP's total risk-weighted assets, at 31 December 2020 and €27 billion at 30 September 2022, representing~~ 3% of the total risk-weighted assets ~~of BNPP~~ at 31 December 2021.

3.1 *~~BNPP~~ The BNP Paribas Group may incur significant losses on its trading and investment activities due to market fluctuations and volatility.*

~~BNPP~~ The BNP Paribas Group maintains trading and investment positions in the debt, currency, commodity and equity markets, and in unlisted securities, real estate and other asset classes, including through derivative contracts. These positions could be adversely affected by extreme volatility in these markets, i.e.~~,~~ the degree to which prices fluctuate over a particular period in a particular market, regardless of market levels. Moreover, volatility trends that prove substantially different from ~~BNPP's~~ the BNP Paribas Group's expectations may lead to losses relating to a broad range of other products that ~~BNPP~~ the BNP Paribas Group uses, including swaps, forward and future contracts, options and structured products.

To the extent that ~~BNPP~~ the BNP Paribas Group owns assets, or has net long positions, in any of those markets, a market downturn could result in losses from a decline in the value of its positions. Conversely, to the extent that ~~BNPP~~ the BNP Paribas Group has sold assets that it does not own, or has net short positions in any of those markets, a market upturn could, in spite of the existing limitation of risks and control systems, expose ~~BNPP~~ the BNP Paribas Group to potentially substantial losses as it attempts to cover its net short positions by acquiring assets in a rising market. ~~BNPP~~ The BNP Paribas Group may from time to time hold a long position in one asset and a short position in another, in order to hedge transactions with clients and/or in view of benefitting from changes in the relative value of the two assets. If, however, the relative value of the two assets changes in a direction or manner that ~~BNPP~~ the BNP Paribas Group did not anticipate or against which its positions are not hedged, it might realise a loss on those paired positions. Such losses, if significant, could adversely affect ~~BNPP's~~ the BNP Paribas Group's results and financial condition. In addition, ~~BNPP's~~ the BNP Paribas Group's hedging strategies may not be suitable for certain market conditions.

If any of the variety of instruments and strategies that the BNP Paribas Group uses to hedge its exposure to various types of risk in its businesses is not effective, ~~BNPP~~ the Group may incur losses. Many of its strategies are based on historical trading patterns and correlations. For example, if ~~BNPP~~ the BNP Paribas Group holds a long position in an asset, it may hedge that position by taking a short position in another asset where the short position has historically moved in a direction that would offset a change in the value of the long position. However, the hedge may only be partial, or the strategies used may not protect against all future risks or may not be fully effective in mitigating ~~BNPP's~~ the BNP Paribas Group's risk exposure in all market environments or against all types of risk in the future. Unexpected market developments may also reduce the effectiveness of ~~BNPP's~~ the BNP Paribas Group's hedging strategies~~, as shown by the losses incurred by BNPP's equity derivatives activities in the first quarter of 2020, due in particular to the market environment and the ECB decisions on dividend distributions~~. In addition, the manner in which gains and losses resulting from certain ineffective hedges are recorded may result in additional volatility in ~~BNPP's~~ the BNP Paribas Group's reported earnings.

~~BNPP~~ The BNP Paribas Group uses a "Value at Risk" (VaR) model to quantify its exposure to potential losses from market risks, and also performs stress testing with a view to quantifying its potential exposure in extreme scenarios (see ~~Chapter 5.7 (*Market Risk* –~~ Market Risk Stress Testing Framework~~)~~ in section 5.7 Market risk ~~of the BNPP 2021 Universal Registration Document (in English)~~). However, these techniques rely on statistical methodologies based on historical observations, which may turn out to be unreliable predictors of future market conditions. Accordingly, ~~BNPP's~~ the BNP Paribas Group's exposure to market risk in extreme scenarios could be greater than the exposures predicted by its quantification techniques.

More generally, the volatility of financial markets resulting from disruptions or deteriorations in macroeconomic conditions could adversely affect the BNP Paribas Group's trading and investment positions in the debt, currency, commodity and equity markets, as well as its positions in other investments. For reference, the revenues of Global Markets accounted for 17% of the BNP Paribas Group's revenues in 2022. Severe market disruptions and extreme market volatility have occurred often in recent years (including in 2022) and may persist or resurface, which could result in significant losses for the BNP Paribas Group. Such losses may extend to a broad range of trading and hedging products, including swaps, forward and future contracts, options and structured products. The volatility of financial markets makes it difficult to predict trends and implement effective trading strategies. It also weighs on the primary equity and bond markets, as in 2022, affecting the activity of Corporate & Institutional Banking.

3.2 *~~BNPP~~ The BNP Paribas Group may generate lower revenues from commission and fee based businesses during market downturns and declines in activity.*

Commissions represented ~~23%~~ 21% of ~~BNPP's~~ the BNP Paribas Group's total revenues in ~~2021~~ 2022. Financial and economic conditions affect the number and size of transactions for which ~~BNPP~~ the BNP Paribas Group provides securities underwriting, financial advisory and other ~~i~~Investment ~~b~~Banking services. These revenues, which include fees from these services, are directly related to the number and size of the transactions in which ~~BNPP~~ the BNP Paribas Group participates and can thus be significantly affected by economic or financial changes that are unfavourable to its Investment Banking business and clients. In addition, because the fees that ~~BNPP~~ the BNP Paribas Group charges for managing its clients' portfolios are in many cases based on the value or performance of those portfolios, a market downturn that reduces the value of its clients' portfolios or increases the amount of withdrawals would reduce the revenues it receives from its asset management, equity derivatives and ~~p~~Private ~~b~~Banking businesses. Independently of market changes, the development of index portfolios or the below-market performance by ~~BNPP's~~ the BNP Paribas Group's mutual funds may lead to reduced revenues from ~~BNPP's~~ the BNP Paribas Group's asset management business, and increased withdrawals and reduced inflows for these vehicles. A reduced level of revenues from the abovementioned commission and fee-based businesses may have a material adverse impact on ~~BNPP's~~ the BNP Paribas Group's financial results.

3.3 *Adjustments to the carrying value of ~~BNPP's~~ the BNP Paribas Group's securities and derivatives portfolios and ~~BNPP's~~ the BNP Paribas Group's own debt could have an adverse effect on its net income and shareholders' equity.*

The carrying value of ~~BNPP's~~ the BNP Paribas Group's securities and derivatives portfolios and certain other assets, as well as its own debt, in its balance sheet is adjusted as of each financial statement date. As at 31 December ~~2021~~ 2022, on the assets side of ~~BNPP's~~ the BNP Paribas Group's balance sheet, financial instruments at fair value through profit or loss, derivative financial instruments used for hedging purposes and financial assets at fair value through shareholders' equity amounted to ~~€683~~ EUR 685 billion, ~~€9~~ EUR 25 billion and ~~€46~~ EUR 38 billion respectively. In the liabilities column, financial instruments at fair value through profit or loss and derivative financial instruments used for hedging purposes amounted to ~~€714~~ EUR 704 billion and ~~€10~~ EUR 40 billion, respectively, at 31 December ~~2021~~ 2022. Most of the adjustments are made on the basis of changes in fair value of ~~BNPP's~~ the BNP Paribas Group's assets or debt during an accounting period, with the changes recorded either in the income statement or directly in shareholders' equity. Changes that are recorded in the income statement, to the extent not offset by opposite changes in the value of other assets, affect ~~BNPP's~~ the BNP Paribas Group's consolidated revenues and, as a result, its net income. A downward adjustment of the fair value of ~~BNPP's~~ the BNP Paribas Group's securities and derivatives portfolios may lead to reduced shareholders' equity and, to the extent not offset by opposite changes in the value of ~~BNPP's~~ the BNP Paribas Group's liabilities, ~~BNPP's~~ the BNP Paribas Group's capital adequacy ratios may also be lowered. The fact that fair value adjustments are recorded in one accounting period does not mean that further adjustments will not be needed in subsequent periods.

3.4 *Limitations on Exercise of Warrants*

If so indicated in the Final Terms, the Issuer will have the option to limit the number of Warrants exercisable on any date (other than the final exercise date) to the maximum number specified in the Final Terms and, in conjunction with such limitation, to limit the number of Warrants exercisable by any person or group of persons (whether or not acting in concert) on such date. In the event that the total number of Warrants being exercised on any date (other than the final exercise date) exceeds such maximum number and the Issuer elects to limit the number of Warrants exercisable on such date, this could have an adverse impact on a Holder, who may not be able to exercise on such date all the Warrants that such Holder desires to exercise. In any such case, the number of Warrants to be exercised on such date will be reduced until the total number of Warrants exercised on such date no longer exceeds such maximum, such Warrants being selected at the discretion of the Issuer. The Warrants tendered for exercise but not exercised on such date will be automatically exercised on the next date on which Warrants may be exercised, subject to the same daily maximum limitation and delayed exercise provisions, which could have an adverse impact on the Holders.

3.5 *Minimum Exercise Amount of Warrants*

If so indicated in the Final Terms, a Holder must tender or, in the case of automatic exercise, hold, a specified number of Warrants at any one time in order to exercise. This could have a negative impact on Holders as, Holders with fewer than the specified minimum number of Warrants will either have to sell their Warrants or purchase additional Warrants, incurring transaction costs in each case, in order to realise their investment. Furthermore, Holders of such Warrants incur the risk that there may be differences between the trading price of such Warrants and the Cash Settlement Amount (in the case of Cash Settled Warrants) or the amount of the Entitlement (in the case of Physical Delivery Warrants) of such Warrants.

4. Liquidity and funding risk

Liquidity risk is the risk that ~~BNPP~~ the BNP Paribas Group will not be able to ~~honour~~ meet its commitments or unwind or offset a position due to market or financial conditions or factors specific ~~factors~~ to it, within a ~~specified period of time~~ given timeframe and at a reasonable cost. It reflects the risk of not being able to ~~cope with~~ meet net cash outflows, including those related to collateral requirements, over all time horizons from short- to long-term ~~horizons~~. The Group's specific risk can be assessed through its short-term liquidity ratio (Liquidity Coverage Ratio - "**LCR**"), which analyses the ~~hedging~~ coverage of net cash outflows ~~during~~ at 30 days in a ~~thirty-day~~ stress ~~period~~ scenario. The ~~monthly average in 2021 of the~~ Group's LCR was ~~143%~~ 129% at the end of 2022. The liquidity reserve was ~~€452~~ EUR 461 billion at the end of ~~2021~~ 2022.

4.1 *~~BNPP's~~The BNP Paribas Group's access to and cost of funding could be adversely affected by a resurgence of financial crises, worsening economic conditions, rating downgrades, increases in sovereign credit spreads or other factors.*

The financial crisis, the ~~euro zone~~ eurozone sovereign debt crisis as well as the general macroeconomic environment, at times adversely affected the availability and cost of funding for European banks around ten years ago. This was due to several factors, including a sharp increase in the perception of bank credit risk due to exposure to sovereign debt in particular, credit rating downgrades of sovereigns and of banks, and debt market speculation. Many European banks, including ~~BNPP~~ the BNP Paribas Group, at various points during these periods experienced restricted access to wholesale debt markets for institutional investors and to the interbank market, as well as a general increase in their cost of funding. More recently, in ~~In~~ the context of the health crisis, the European Central Bank ("ECB") also set up refinancing facilities designed to foster the banks' financing of the economy (Targeted Longer-Term Refinancing Options or "TLTRO"), on which ~~BNPP~~ the BNP Paribas Group has drawn. Such adverse credit market conditions may reappear in the event of a recession, prolonged stagnation of growth, deflation, "stagflation" (sluggish growth accompanied by inflation), a resurgence of the financial crisis, another sovereign debt crisis, ~~or~~ new forms of financial crises, factors relating to the financial industry or the economy in general (including the economic consequences of the health crisis or the invasion of Ukraine and its impact on the world economy ~~(including~~ with the worsening of inflation~~)~~ or the rapid rise of market interest rates in 2022) or to ~~BNPP~~ the BNP Paribas Group in particular. In this case, the effect on the liquidity of the European financial sector in general or ~~BNPP~~ the BNP Paribas Group in particular could be materially adverse and have a negative impact on ~~BNPP's~~ the BNP Paribas Group's results of operations and financial condition.

4.2 *Protracted market declines can reduce ~~BNPP's~~ the BNP Paribas Group's liquidity, making it harder to sell assets and possibly leading to material losses. Accordingly, ~~BNPP~~ the BNP Paribas Group must ensure that its assets and liabilities properly match in order to avoid exposure to losses.*

In some of ~~BNPP's~~ the BNP Paribas Group's businesses, particularly Global Markets (which represented ~~14.8%~~ 17% of ~~BNPP's~~ the BNP Paribas Group's revenue in ~~2021~~ 2022) and Asset/Liability Management, protracted market movements, particularly asset price declines, can reduce the level of activity in the market or reduce market liquidity. These developments can lead to material losses if ~~BNPP~~ the BNP Paribas Group cannot close out deteriorating positions in a timely way. This is particularly true for assets that are intrinsically illiquid. Assets that are not traded on stock exchanges or other public trading markets, such as certain derivative contracts between financial institutions, may have values that ~~BNPP~~ the BNP Paribas Group calculates using models rather than publicly quoted prices. Monitoring the deterioration of prices of assets like these is difficult and could lead to significant unanticipated losses (see ~~Chapter~~ section 5.8 ~~(~~Liquidity risk ~~–~~, paragraph Stress tests and liquidity reserve) ~~in the BNPP 2021 Universal Registration Document (in English))~~.

~~BNPP~~ The BNP Paribas Group is exposed to the risk that the maturity, interest rate or currencies of its assets might not match those of its liabilities. The timing of payments on certain of ~~BNPP's~~ the BNP Paribas Group's assets is uncertain, and if ~~BNPP~~ the BNP Paribas Group receives lower revenues than expected at a given time, it might require additional market funding in order to meet its obligations on its liabilities. While ~~BNPP~~ the BNP Paribas Group imposes strict limits on the gaps between its assets and its liabilities as part of its risk management procedures, it cannot be certain that these limits will be fully effective to eliminate potential losses arising from asset and liability mismatches.

4.3 *Any downgrade of ~~BNPP's~~ the Group's credit ratings could weigh heavily on the profitability of ~~BNPP~~ the Group.*

Credit ratings have a significant impact on ~~BNPP's~~ the BNP Paribas Group's liquidity. On 25 April 2022, Standard & Poor's confirmed the long-term rating of ~~BNPP~~ BNP Paribas SA's deposits and senior preferred debt rating as A+, ~~confirmed~~ and its short-term rating as A-1 ~~and maintained the~~ with a stable outlook ~~as stable~~. On 13 September 2022, Fitch maintained its long-term deposits and senior preferred debt rating~~s~~ for ~~BNPP~~ BNP Paribas SA at AA- and its short-term deposits and senior preferred debt rating for ~~BNPP~~ BNP Paribas SA at F1+ and ~~maintained~~ revised its ~~the~~ outlook ~~as~~ to stable. On 5 July 2022, Moody's confirmed its long-term deposits and senior preferred debt rating as Aa3, and ~~confirmed~~ its short-term rating as P-1, with a stable outlook. On 28 June 2022, DBRS confirmed ~~BNPP~~ BNP Paribas SA's senior preferred debt rating as AA (low), ~~as well as~~ and its short-term rating as R-1(middle), with a stable outlook. A downgrade in ~~BNPP's~~ the BNP Paribas Group's credit rating could affect the liquidity and competitive position of ~~BNPP~~ the Group. It could also increase ~~BNPP's~~ the BNP Paribas Group's borrowing costs, limit access to the capital markets or trigger additional obligations under its covered bonds or under certain bilateral provisions in some trading, derivative or collateralised financing contacts.

In addition, ~~BNPP's~~ the BNP Paribas Group's cost of obtaining long term unsecured funding from market investors is also directly related to its credit spreads, which in turn depend to a certain extent on its credit ratings. Increases in credit spreads can significantly increase ~~BNPP's~~ the BNP Paribas Group's cost of funding. Changes in credit spreads are continuous, market driven, and subject at times to unpredictable and highly volatile movements. Credit spreads are also influenced by market perceptions of ~~BNPP's~~ the BNP Paribas Group's creditworthiness. Furthermore, credit spreads may be influenced by movements in the cost to purchasers of credit default swaps referenced to ~~BNPP's~~ the BNP Paribas Group's debt obligations, which are influenced both by the credit quality of those obligations, and by a number of market factors that are beyond the control of ~~BNPP~~ the BNP Paribas Group.

5. Risks related to the macroeconomic and market environment

5.1 *Adverse economic and financial conditions have in the past had and may in the future have an impact on ~~BNPP~~ the BNP Paribas Group and the markets in which it operates.*

~~BNPP's~~ the BNP Paribas Group's business is sensitive to changes in the financial markets and more generally to economic conditions in France (~~32%~~30% of ~~BNPP's~~ the Group's revenues at 31 December ~~2021~~2022), other countries in Europe (~~45%~~47% of ~~BNPP's~~ the Group's revenues at 31 December ~~2021~~2022) and the rest of the world (23% of ~~BNPP's~~ the Group's revenues at 31 December ~~2021~~2022, including ~~5%~~6% related to activities of Bank of the West in the United States, the sale of which was completed on 1 February 2023). A deterioration in economic conditions in the markets in the countries where ~~BNPP~~ the BNP Paribas Group operates and in the economic environment could in the future have, some or all of the following impacts:

- adverse economic conditions affecting the business and operations of ~~BNPP's~~ the BNP Paribas Group's customers, reducing credit demand and trading volume and resulting in an increased rate of default on loans and other receivables, in part as a result of the deterioration of the financial capacity of companies and households;

- a decline in market prices (or an increase in volatility) of bonds, equities and commodities affecting the businesses of ~~BNPP~~ the BNP Paribas Group, including in particular trading, ~~i~~Investment ~~b~~Banking and asset management revenues;

- macroeconomic policies adopted in response to actual or anticipated economic conditions having unintended effects, and are likely to impact market parameters such as interest rates and foreign exchange rates, which in turn can affect ~~BNPP's~~ the BNP Paribas Group's businesses that are most exposed to market risk;

- perceived favourable economic conditions generally or in specific business sectors resulting in asset price bubbles, and the ~~subsequent~~ corrections when conditions become less favourable;

- a significant economic disruption (such as the global financial crisis of 2008, the European sovereign debt crisis of 2011, the recession caused ~~since,~~ in 2020 and 2021, by the Covid~~COVID-~~19 pandemic or high inflation and rising interest rates as well as geopolitical shocks (~~such as~~ for example, the invasion of Ukraine in 2022)) having a substantial impact on all of ~~BNPP's~~ the BNP Paribas Group's activities, ~~particularly~~ which would be exacerbated if the disruption is characterised by an absence of market liquidity that makes it difficult to sell certain categories of assets at their estimated market value or at all. These disruptions could also lead to, in particular, a decline in transaction commissions and consumer loans; ~~and~~

- ~~a significant deterioration of market and economic conditions resulting from, among other things~~, various adverse political and geopolitical events such as natural disasters, geopolitical tensions, health risks such as the ~~coronavirus~~ Covid-19 pandemic and its aftermath, the fear or recurrence of new epidemics or pandemics, acts of terrorism, societal unrest, cyber-attacks, military conflicts or threats thereof and related risks (~~in particular,~~ such as the ~~ongoing war in~~ invasion of Ukraine, related economic sanctions and the consequential impact on energy markets affecting Europe in particular) may affect the operating environment for ~~BNPP~~ the BNP Paribas Group episodically or for extended periods.

~~Since 2020, economies and financial markets have continued to be, particularly sensitive to a number of factors, including the evolution of the coronavirus pandemic and its economic consequences, in particular, the increase in sovereign and corporate debt that pre-dated the health crisis and has been aggravated by it, as well as the strength and staying power of the economic recovery following the crisis' peak, which is itself dependent on a number of factors (see risk factor 7.1 "*Epidemics and pandemics, including the ongoing coronavirus (COVID-19) pandemic and their economic consequences may adversely affect the Group's business, operations, results and financial condition*" below).~~

~~In addition, from early 2022, numerous factors have affected and may increasingly affect the economy and the financial markets, in particular geopolitical tensions or shocks (notably in Eastern Europe, and in particular, the invasion of Ukraine, as discussed below), political risks directly affecting Europe, general trends in consumer and commodity prices characterised by very high inflation, corresponding trends in wages, tensions over energy supplies, supply chain pressures, the changing worldwide economic situation impacting overall global economic growth, tensions around international trade, currency movements (including U.S. dollar appreciation) and, as discussed below, the evolution of monetary policy and interest rates (these elements themselves being affected by the above-mentioned factors).In particular, the invasion of Ukraine, as well as the reaction of the international community, have been, continue to be, and could remain a source of instability for global markets, depressing stock market indices, inflating commodity prices (notably electricity, oil, gas and agricultural products, such as~~

~~wheat), aggravating supply chain disruption and causing an increase in production costs and inflation more generally. These events have had, and are expected to continue to have economic and financial repercussions that will increase inflation and decrease global growth and BNPP and its clients could be adversely affected as a result.~~

~~The International Monetary Fund (the "**IMF**") stated in October 2022 that world growth and Eurozone growth should be 3.2% and 3.1%, respectively, in 2022 and 2.7% and 0.5%, respectively, in 2023. The IMF also stated that global inflation is predicted to rise from 4.7% in 2021 to 8.8% in 2022, but to decline to 6.5% in 2023 and to 4.1% by 2024.~~

~~More generally, the volatility of financial markets could adversely affect BNPP's trading and investment positions in the debt, currency, commodity and equity markets, as well as its positions in other investments. For reference, Global Markets accounted for 14.8% of BNPP's revenues in 2021. Severe market disruptions and extreme market volatility have occurred often in recent years (including to date in 2022) and may persist or resurface, which could result in significant losses for BNPP. Such losses may extend to a broad range of trading and hedging products, including swaps, forward and future contracts, options and structured products. The volatility of financial markets makes it difficult to predict trends and implement effective trading strategies.~~

A number of risk factors could particularly affect the economy and the financial markets in 2023. They are the continuation of events that occurred or trends that began in 2022. Firstly, high inflation due to a number of factors, including bottlenecks in various supply chains coming out of the Covid-19 pandemic, abundant liquidity resulting from monetary policy and public aid during the pandemic, and the consequences of the invasion of Ukraine, particularly on the energy market. Inflation has had, and may continue to have, the effect of increasing costs (raw materials and wages) for companies (the Group's clients and the Group itself) and the cost of living for individuals, and the risk of a decline in corporate margins and the quality of corporate and consumer credit. Secondly, a significant and rapid monetary tightening affecting the financial markets and the economy more generally and increasing the cost of financing for companies and individuals, potentially leading to a sharp decline in growth or even a global or regional recession. Indeed, the International Monetary Fund ("IMF") stated in January 2023 that it expected the world and eurozone's growth to be 3.4% and 3.5% in 2022 and 2.9% and 0.7% in 2023, respectively. The IMF also stated that it expected global inflation to be 8.8% in 2022, 6.6% in 2023 and 4.3% in 2024.

Among the factors that could strongly influence the macroeconomic trajectory, including the existence, severity and duration of a recession, in 2023 are the course of the situation in Ukraine and of the Covid-19 pandemic. The invasion of Ukraine and the reaction of the international community (particularly the imposition of economic sanctions) have been and may continue to be a source of instability in global markets, impacting stock market indices, increasing the price of raw materials (such as electricity, oil, gas and agricultural commodities) or causing fears of shortages, thereby aggravating the disruption of supply chains and increasing production and transportation costs, as well as inflation more generally. The impact on the global energy market, particularly in Europe, will continue to be felt in 2023 (and possibly beyond) with risks of further crises (shortages, price increases, cascading effects in the economy, including liquidity and margin pressures for companies, even leading to production stoppages). After having caused a global recession in 2020 and a major disruption to the global economy in 2021, the Covid-19 pandemic had less of a macro-economic effect in 2022; its impact in 2023 will depend on a number of factors, including the potential resurgence of regional outbreaks, the possible emergence of new strains, and above all, public policy reactions. Finally, the risk of various types of crises exists, including that of sovereign debt (high level of post-pandemic public indebtedness, rapid increase in (re)financing costs, exchange rate effects particularly for borrowers exposed to the US dollar, and political risks – for example, of gridlock in the US congress); the bursting of various financial bubbles fostered by the previous environment of abundant liquidity and very low interest rates; and geopolitical events of different types and from different sources, in a context of increased political and societal tensions in various parts of the world.

It is difficult to predict economic or market declines or other market disruptions, and which markets will be most significantly impacted. If economic or market conditions in France or elsewhere in Europe, or ~~g~~Global ~~m~~Markets more generally, continue to deteriorate or become increasingly volatile, ~~BNPP's~~ the BNP Paribas Group's operations could be disrupted, and its business, results of operations and financial condition could be materially and adversely affected.

5.2 *Significant interest rate changes could adversely affect ~~BNPP's~~ the BNP Paribas Group's revenues or profitability. There are risks associated with exiting or ~~remaining in~~ potentially returning to a prolonged low interest rate environment.*

The net interest income recorded by ~~BNPP~~ the BNP Paribas Group during any given period significantly affects its overall revenues and profitability for that period. Interest rates are highly sensitive to many factors beyond ~~BNPP's~~ the BNP Paribas Group's control, such as the rate of inflation, country-specific monetary policies and certain decisions concerning regulatory capital. Changes in market interest rates could affect the interest rates charged on interest-earning assets differently from the interest rates paid on interest-bearing liabilities and other resources such as deposits. Increases in the interest rates at which ~~BNPP's~~ the BNP Paribas Group's short-term funding is available and maturity mismatches may adversely affect its profitability. Conversely, any adverse change in the yield curve could cause a decline in net interest income generated by ~~BNPP's~~ the BNP Paribas Group's lending activities.

After a long period of low interest rates (in France, Europe and globally) ~~which intensified~~ culminating during the initial phases of the Covid-19 pandemic – due, in particular, to very accommodating central bank monetary policies ~~–~~central banks, faced with the emergence of stronger and more lasting inflation than initially expected, have since the beginning of 2022 been tightening monetary policy ~~since the beginning of 2022~~, itself leading to a rapid and significant rise in market interest rates. For example, the US Federal Reserve raised its benchmark interest rate by ~~0.50%~~ 4.25% in ~~May~~ 2022 and by ~~0.75%~~ 0.25% in January 2023 ~~each of June, July and September 2022, and has stated that it plans to continue acting in view of reducing inflation to 2%~~. The ECB raised its benchmark interest rate by ~~0.50%~~ 2.5% in 2022 and by 0.5% in January 2023. ~~in July 2022, by 0.75% in September 2022 and by 0.75% in October 2022,~~ In connection with the latest rate increases each indicated more to come. In addition, the ECB ~~and~~ approved the creation of a new "transmission protection instrument" ~~It ended its emergency pandemic purchase programme in March 2022~~ and announced the amendment of the conditions of its longer-term refinancing operations (TLTRO 3 ~~in October 2022~~), starting from November 2022 until the end of each operation as well as the reduction of its asset purchase programme starting in March 2023. As the Group hedges its overall interest rate position, any change in the terms and conditions affecting these instruments may lead to adjustments in this hedge. These adjustments could have an adverse impact on the results of the BNP Paribas Group.

~~Nomalisation,~~ A tightening ~~or change~~ of monetary policy ~~following,~~ particularly after a prolonged period of low interest rates creates risks. Tightening more than expected or more quickly than expected could have a negative impact on the economy and lead to a recession. ~~The~~ Indeed, various institutions, such as the World Bank or the IMF stated in ~~August and September~~ the second half of 2022 that ~~it sees~~ they see the possibility of a global recession in 2023 and a string of financial crises in emerging markets and developing economies as a result of the general and simultaneous rise in interest rates, as well as, for the former, currency movements (and, in particular, substantial appreciation of the U.S. dollar). The central scenario of the Organisation for Economic Cooperation and Development ("OECD"), in its November 2022 report, is for a sharp slowdown in global growth in 2023. In the ~~euro zone~~eurozone, which has up until now been characterised by a unified monetary policy despite the varying risk profiles of the component countries, the widening of the spread between sovereign bonds could have an impact on the financing of countries experiencing the greatest rate increases and, in the long term, could have more serious macroeconomic (or political) consequences. The IMF announced in January 2023 that it expects growth in the eurozone to have been 3.5% in 2022 and to be 0.7% in 2023. In addition, a general increase in ~~key~~ benchmark interest rates could prompt holders of low-interest debt or assets to switch to higher-interest bearing assets and further reduce the value of portfolios of fixed-interest debt or assets with lower interest rates. If ~~BNPP's~~ the BNP Paribas Group's hedging strategies prove ineffective or provide only a partial hedge against this decline in value, ~~BNPP~~ the BNP Paribas Group could incur losses. Policy decisions to increase the rate of return on regulated savings (already underway in France) should increase the positive inflow of funds into such investments and, conversely, lead to a shift away from unregulated products, which earn lower rates of return or no returns. Such a scenario, combined with the fact that regulated savings would continue to be remunerated at a higher level than the level received by ~~BNPP~~ the BNP Paribas Group for these same deposits, could result in additional costs related to the amount of outstanding deposits and lead to a decrease in the funding resources of ~~BNPP~~ the BNP Paribas Group. With respect to the financing granted by ~~BNPP~~ the BNP Paribas Group, this could in particular test the resilience of ~~BNPP's~~ the BNP Paribas Group's loan and bond portfolio and possibly lead to an increase in non-performing loans and loan defaults. ~~In addition, rising interest rates increase the cost of BNPP's funding resources and lead to higher market rates for originated loans under the combined effects of a possible decline in new production and increased competition.~~

More generally, a very rapid rise in interest rates resulting in particular from central banks ending their accommodative monetary policies in light of an economic recovery or high inflation rates could adversely affect the Group's revenues and profitability by weighing, at least temporarily, on its margins. BNP Paribas may also have difficulty (in particular due to the usury rate in France) promptly reflecting higher interest rates in new mortgage or other fixed-rate consumer or corporate loans, while the cost of customer deposits and hedging costs would increase more rapidly. In addition, rising market interest rates increase the BNP Paribas Group's funding costs and lead to higher rates on new loans due to the combined effects of a possible decline in new lending and increased competition.

More generally, the ~~gradual~~ evolution of monetary policies, as currently implemented by central banks, has contributed to, and could continue to contribute to, the correction of certain markets or market sectors (for example, non-investment grade borrowers and sovereign borrowers, and equity and real estate markets and the leveraged finance market) and impact market participants who have particularly benefited from a prolonged environment of low interest rates and abundant liquidity. These corrections have, and could continue to, spread to all financial markets, particularly due to a significant increase in volatility.

A return in the medium-term to a low interest rate environment, or a decline in interest rates, particularly following a recession, cannot be ruled out. Such a development would be likely to weigh significantly on the profitability of banks, as was the case during the recent long period of low interest rates. The relative impact on banks depends in particular on the proportion of revenues generated by net interest income: this proportion was 46% for ~~BNPP~~ BNP Paribas in 2022 (see ~~the "Reconciliation Table Consolidated Income Statement for the year 2022~~ *Alternative Performance Measures –* IFRS 5~~" –~~ Transition Table in chapter 3). The Group generates a significant portion of ~~the BNPP 2021 Universal Registration Document~~ its revenues from its net interest margin and therefore remains exposed to interest rate fluctuations and changes ~~(~~in ~~English))~~ the yield curve. During periods of low interest rates, interest rate spreads tend to tighten, and ~~BNPP~~ the BNP Paribas Group may be unable to lower interest rates on deposits sufficiently to offset reduced income from lending at lower interest rates. Net interest income amounted to ~~€21,312 million in 2020 and €~~ EUR 21,209 million in 2021~~,~~ and EUR 23,168 million in 2022 respectively. On an indicative basis, over one-, two- and three-year timeframes, the sensitivity of revenues at 31 December ~~2021~~2022 to a parallel, instantaneous and definitive increase in market rates of +50 basis points (+0.5%) across all currencies had an impact of ~~+€~~ -EUR ~~127~~22 million, ~~+€~~ -EUR ~~537~~20 million and +~~€~~EUR ~~694~~125 million, respectively, or ~~+0.3%~~ -0.04%, ~~+1.2%~~ -0.04% and +~~1.5%~~0.25%, of ~~BNPP's~~ the Group's net banking income. The negative interest rate environment in which banks are charged for cash deposited with central banks, ~~where~~ whereas banks typically do not charge clients for deposits, weighs significantly on banks' margins. In addition, ~~BNPP~~ the BNP Paribas Group has been facing and may continue to face an increase in early repayment and refinancing of mortgages and other fixed rate consumer and corporate loans as clients take advantage of relatively low borrowing costs. This, along with the issuance of new loans at the low prevailing market interest rates, has resulted and may continue to result in a decrease in the average interest rate of ~~BNPP's~~ the BNP Paribas Group's portfolio of loans thereby causing a decline in its net interest income from lending activities. Moreover, an environment of persistently low interest rates can also have the effect of flattening the yield curve in the market more generally, which could reduce the premium generated by ~~BNPP~~ the BNP Paribas Group from its funding activities. A flattening yield curve can also influence financial institutions to engage in riskier activities in an effort to earn the desired level of returns, which can increase overall market risk and volatility. Low interest rates may also affect the profitability and even the solvency of the insurance activities of ~~French~~ banks in France, including ~~BNPP~~ the BNP Paribas Group, particularly due to the prevalence in the market of life insurance contracts backed by euro-denominated funds, which may not be able to generate sufficient returns to be competitive with other investment products. Low interest rates may also adversely affect commissions charged by ~~BNPP's~~ the BNP Paribas Group's asset management subsidiaries on money market and other fixed income products. A reduction in credit spreads and decline in ~~r~~Retail ~~b~~Banking income resulting from lower portfolio interest rates may adversely affect the profitability of ~~BNPP's~~ the BNP Paribas Group's Retail Banking operations.

5.3 *Given the global scope of its activities, ~~BNPP~~ the BNP Paribas Group is exposed to country risk and to changes in the political, macroeconomic or financial contexts of a region or country.*

~~BNPP~~ The BNP Paribas Group is subject to country risk, meaning the risk that economic, financial, political, regulatory or social conditions in a given foreign country in which it operates could adversely affect ~~BNPP's~~ the BNP Paribas Group's operations, or its results, or its financial condition, or its business. ~~BNPP~~ The BNP Paribas Group monitors country risk and takes it into account in the fair value adjustments and cost of risk recorded in its financial statements. However, a significant change in political or macroeconomic environments may require it to record additional charges or to incur losses beyond the amounts previously written down in its financial statements. In addition, factors specific to a country or region in which ~~BNPP~~ the BNP Paribas Group operates could make it difficult for it to carry out its business and lead to losses or impairment of assets.

At 31 December ~~2021~~2022, ~~BNPP's~~ the BNP Paribas Group's loan portfolio consisted of receivables from borrowers located in France (~~32%~~33%), Belgium and Luxembourg (~~16%~~15%), Italy (9%), other European countries (19%), North America, including Bank of the West (13%), Asia (6%) and the rest of the world (5%). Adverse economic or regulatory conditions that particularly affect these countries and regions would have a significant impact on ~~BNPP~~ the BNP Paribas Group. For example, the introduction by the Polish government in July 2022 of a law allowing borrowers under mortgage loans, generally at variable rates, to suspend their payments for eight months in the 2022-2024 period led the Group (operating in Poland through BNP Paribas Bank Polska) to record an exceptional negative impact in the third quarter of EUR 204 million. In addition, ~~BNPP~~ the BNP Paribas Group has significant exposures in countries outside the OECD, which are subject to risks that include political instability, unpredictable regulation and taxation, expropriation and other risks that are less present in more developed economies.

In addition, ~~BNPP~~ the BNP Paribas Group is present in Ukraine, a country invaded in February 2022, through its subsidiary UkrSibbank in which it holds a 60% stake alongside the European Bank for Reconstruction and Development (40%). At 31 December 2021, ~~UkrSibbank's balance sheet totalled approximately 0.08% of that of BNPP. The total equity of the subsidiary represented approximately 0.15% of consolidated equity of BNPP share. At 31 December 2021, BNPP generated less than 0.5% of its pre-tax profit in Ukraine (see Chapter 8.6 (Information on locations and businesses in 2022) of the BNPP 2021 Universal Registration Document (in English)). BNPP's~~ BNP Paribas Group's total gross on- and off-balance sheet exposures to Ukraine (which are concentrated on UkrSibbank) represented less than 0.09% of ~~BNPP's~~ the Group's gross exposures. ~~The situation in Ukraine has profoundly changed the continuing operations of local banks, which – since 24 February 2022 – are focused on the provision of payment instruments and services critical to the economy within the framework of the new regulations introduced by the Ukrainian central bank~~. In ~~this~~ the context of the conflict in Ukraine, ~~BNPP~~ the Group ~~has estimated~~ reassessed the nature of the control exercised over its subsidiary UkrSibbank and concluded that ~~as of 31 March 2022,~~ it would lose exclusive control and retain ~~exerts~~ significant influence over ~~UkrSibbank~~ the entity ~~within the meaning of the applicable accounting standards. Consequently, in accordance with applicable accounting standards, BNPP~~ This situation led the Group ~~has recorded, as of 31 March 2022, a 90% impairment of its shares in UkrSibbank amounting to~~ to consolidate it using the equity method from 1 March 2022. The loss of control resulted in the recognition of a capital loss of EUR ~~€~~ -159 million, ~~as well as a loss of~~ and the reclassification to profit or loss of the cumulative changes in assets and liabilities related to exchange rates of EUR ~~€~~ 274 million ~~relating to the recycling of the conversion reserve,~~ recorded in "Net gain on non-current assets" as described in note 7.c to the financial statements for the year ended 31 December 2022.

With regard to Russia, which is subject to severe economic sanctions imposed notably by the European Union, ~~the United States~~ USA and ~~the United Kingdom~~ UK, gross on- and off- balance sheet exposures represented less than ~~0.07%~~ 0.04% of ~~BNPP's~~ the BNP Paribas Group's gross exposures at 31 December 2022. The amount of net residual exposures, both in Russia and Ukraine, is more limited given the way in which ~~BNPP~~ the Bank operates in these two markets and how it secures its activities, with guarantees and collateral. In addition, various customers or counterparties of ~~BNPP~~ the BNP Paribas Group, in particular financial institutions and corporates, conduct business in these countries or have exposure to borrowers in these countries or have significant suppliers in those countries and could see their financial position weakened by the conflict and its consequences, particularly due to the cessation of their business in Ukraine and/or Russia or the reduction or termination (voluntarily or involuntarily) of their supplies from these countries. ~~BNPP~~ The Group is ~~closely~~ diligently monitoring developments in the situation in conjunction with the authorities concerned and, in particular, the reactions of the international community with regard to economic sanctions.

6. Regulatory Risks

6.1 *Laws and regulations adopted in recent years, as well as current and future legislative and regulatory developments, may significantly impact ~~BNPP~~ the BNP Paribas Group and the financial and economic environment in which it operates.*

Laws and regulations have been enacted in the past few years, in particular in France, Europe and the United States, with a view to introducing a number of changes, some permanent, in the financial environment. The impact of the measures has changed substantially the environment in which ~~BNPP~~ the BNP Paribas Group and other financial institutions operate.

The measures that have been adopted include:

- strengthening the powers of supervisory bodies, such as the French Prudential Supervision and Resolution Authority (the "**ACPR**") and the creation of new authorities, including the adoption of the Single Resolution Mechanism (the "**SRM**") in October 2013, pursuant to which the BNP Paribas Group is under the direct supervision of the ECB.
- more stringent capital and liquidity requirements (particularly for global systemically important banks such as ~~BNPP~~ the BNP Paribas Group), as well as changes to the risk-weighting methodologies and the methods of using internal models that have led, could have led or could lead to increased capital requirements;
- restrictions on certain types of activities considered as speculative undertaken by commercial banks that are prohibited or need to be ring-fenced in subsidiaries (particularly proprietary trading) and are subject to prudential requirements and autonomous funding;
- prohibitions or restrictions on fees for certain types of financial products or activities;
- enhanced recovery and resolution regimes, in particular the Bank Recovery and Resolution Directive of 15 May 2014 (the "**BRRD**"), as amended from time to time, which strengthens powers to prevent and resolve banking crises in order to ensure that losses are borne largely by the creditors and shareholders of the banks and in order to keep the costs incurred by taxpayers to a minimum;
- the establishment of the national resolution funds by the BRRD and the creation of the Single Resolution Board (the "**SRB**") by the European Parliament and Council of the European Union in a resolution dated 15 July 2014 (the "**SRM Regulation**"), as amended from time to time, which can initiate resolution proceedings for banking institutions such as ~~BNPP~~ the BNP Paribas Group, and the Single Resolution Fund (the "**SRF**"), the financing of which by ~~BNPP~~ the BNP Paribas Group (up to its annual contribution) can be significant;
- the establishment of national deposit guarantee schemes and a proposed European deposit guarantee scheme or deposit insurance which will gradually cover all or part of the guarantee schemes of participating countries;
- increased internal control and reporting requirements with respect to certain activities;
- the implementation of regulatory stress tests (including in relation to climate change risk) which could lead to additional regulatory capital requirements (see ~~Chapter 5.7 (~~Market Risk Stress Testing Framework~~) in the BNPP 2021 Universal Registration Document (in English))~~ in section 5.7 Market risk;

- greater powers granted to the relevant authorities to combat money laundering and terrorism financing, in particular through the creation of a new European anti-money laundering authority which should be established in 2023 and commence its activities between 2024 and 2026;

- more stringent governance and conduct of business rules and restrictions and increased taxes on employee compensation over specified levels;

- measures to improve the transparency, efficiency and integrity of financial markets and in particular the regulation of high frequency trading, more extensive market abuse regulations, increased regulation of certain types of financial products including mandatory reporting of derivative and securities financing transactions, requirements either to mandatorily clear, or otherwise mitigate risks in relation to, ~~OTC~~ over-the-counter derivative transactions (including through posting of collateral in respect of non-centrally cleared derivatives);

- the taxation of financial transactions;

- enhanced protection of personal data and cybersecurity requirements;

- enhanced disclosure requirements, including through the introduction of new disclosure requirements on (i) how banking groups providing asset management services, such as ~~BNPP~~ the BNP Paribas Group, integrate sustainability risks, or negative impacts, sustainable investment objectives or the promotion of environmental or social attributes when making investment decisions, and (ii) how and to what extent banking groups themselves finance or develop economic activities that can be considered environmentally sustainable as defined in the European Taxonomy; and

- strengthened transparency and disclosure requirements on CSR risk management, including physical and transitional risks related to climate change, and the introduction of new requirements for the integration of climate risk into the risk measurement and management systems of banking groups, including through the publication of proposals for banks to manage and disclose climate risk; and

- ~~strengthening the powers of supervisory bodies, such as the French Prudential Supervision and Resolution Authority (the "**ACPR**") and the creation of new authorities, including the adoption of the Single Resolution Mechanism (the "**SRM**") in October 2013, pursuant to which BNPP is under the direct supervision of the ECB.~~

These measures may have a significant adverse financial impact. For example, the introduction of a required contribution to the Single Resolution Fund resulted in a substantial additional expense for ~~BNPP~~ the BNP Paribas Group since its inception (~~BNPP~~ the Group made a ~~€967~~ EUR 1,256 million contribution to the ~~SRF~~ Single Resolution Fund in 2022).

Measures relating to the banking sector could be further amended, expanded or strengthened. Moreover, additional measures could be adopted in other areas. It is impossible to predict what additional measures will be adopted or what their exact content will be, and, given the complexity of the issues and the uncertainty surrounding them, to determine their impact on ~~BNPP~~ the BNP Paribas Group. The effect of these measures, whether already adopted or that may be adopted in the future, has been and could continue to be a decrease in ~~BNPP's~~ the BNP Paribas Group's ability to allocate its capital and capital resources to financing, limit its ability to diversify risks, reduce the availability of certain financing and liquidity resources, increase the cost of financing, increase the cost of compliance, increase the cost or reduce the demand for the products and services offered by ~~BNPP~~ the BNP Paribas Group, require ~~BNPP~~ the BNP Paribas Group to proceed with internal reorganisations, structural changes or reallocations, affect the ability of ~~BNPP~~ the BNP Paribas Group to carry on certain activities or to attract and/or retain talent and, more generally, affect its competitiveness and profitability, which could have an impact on its activities, financial condition and operating results. As a recent example~~,~~ on 27 October 2021 the European Commission presented a legislative package to finalise the implementation within the European Union of the Basel III agreement adopted by the Group of Central ~~Bank~~ Governors and Heads of Supervision (~~"~~GHOS~~"~~) on 7 December 2017. ~~This legislative package will in~~ On 8 November 2022, the Council adopted its position on the Commission's proposals and is currently negotiating with ~~the next stage be discussed by~~ the European Parliament ~~and Council with a view~~ to agree~~ing~~ on a final version of the texts. In the impact assessment accompanying the legislative package, the European Commission estimated, on the basis of ~~a European Banking Authority ("**EBA**")~~ an EBA impact study dated December 2020 and of additional European Commission estimates for some EU-specific adjustments, that the implementation of the final Basel III standards may result in an average increase in total minimum capital requirements ranging between 6.4% and 8.4% after ~~a~~ full implementation of the reform. On the basis of the EBA's updated impact analysis taking into account the combined effect of the reform and the potential consequences of the health crisis, the European Commission opted to apply the new capital requirements to EU banks as ~~of~~ from 1 January 2025, with a phase-in period during which the requirements will be gradually increased through 2030 (and 2032 for certain requirements). On this basis, ~~BNPP~~ the Group has indicated a potential increase of 8% in its risk-weighted assets at the date of the first application announced for 1 January 2025, which implies a potential 8% increase in total minimum capital requirements resulting from the finalisation of Basel ~~III~~ 3 (fully loaded). This estimate is subject to change depending on potential changes in the draft text, in ~~BNPP~~ the Group and ~~in~~ the macroeconomic context.

~~BNPP~~ The BNP Paribas Group is subject to extensive and evolving regulatory regimes in the jurisdictions in which it operates. ~~BNPP~~ The BNP Paribas Group faces the risk of changes in legislation or regulation in all of the countries in which it operates, including, but not limited to, the following:

- monetary, liquidity, interest rate and other policies of central banks and regulatory authorities;
- changes in government or regulatory policy that may significantly influence investor decisions, in particular in the markets in which ~~BNPP~~ the BNP Paribas Group operates;
- changes in regulatory requirements applicable to the financial industry, such as rules relating to applicable governance, remunerations, capital adequacy and liquidity frameworks, restrictions on activities considered as speculative and recovery and resolution frameworks;
- changes in securities regulations as well as in financial reporting, disclosure and market abuse regulations;
- changes in the regulation of certain types of transactions and investments, such as derivatives and securities financing transactions and money market funds;
- changes in the regulation of market infrastructures, such as trading venues, central counterparties, central securities depositories, and payment and settlement systems;
- changes in the regulation of payment services, crowdfunding and fintech;
- changes in the regulation of protection of personal data and cybersecurity;
- changes in tax legislation or the application thereof;
- changes in accounting norms;
- changes in rules and procedures relating to internal controls, risk management and compliance; and
- expropriation, nationalisation, price controls, exchange controls, confiscation of assets and changes in legislation relating to foreign ownership.

These changes, the scope and implications of which are highly unpredictable, could substantially affect ~~BNPP~~ the BNP Paribas Group and have an adverse effect on its business, financial condition and results of operations. Certain reforms not directed specifically at financial institutions, such as measures relating to the funds industry or promoting technological innovation (such as open data projects), could facilitate the entry of new players in the financial services sector or otherwise affect ~~BNPP's~~ the BNP Paribas Group's business model, competitiveness and profitability, which could in turn affect its financial condition and results of operations.

~~Finally, the accommodative policies implemented temporarily by national and European regulatory authorities in the context of the health crisis have either lapsed or are expected to lapse gradually, although their remaining course is not currently certain (see risk factor 7.1 "*Epidemics and pandemics, including the ongoing coronavirus (COVID 19) pandemic and their economic consequences may adversely affect BNPP's business, operations, results and financial condition*" below).~~

6.2 *~~BNPP~~ The BNP Paribas Group may incur substantial fines and other administrative and criminal penalties for non-compliance with applicable laws and regulations, and may also incur losses in related (or unrelated) litigation with private parties.*

~~BNPP~~ The BNP Paribas Group is exposed to regulatory compliance risk, i.e. the failure to comply fully with the laws, regulations, codes of conduct, professional norms or recommendations applicable to the financial services industry. This risk is exacerbated by the adoption by different countries of multiple and occasionally diverging and even conflicting legal or regulatory requirements. Besides damage to ~~BNPP's~~ the BNP Paribas Group's reputation and private rights of action (including class actions), non-compliance could lead to material legal proceedings, fines and expenses (including fines and expenses in excess of recorded provisions), public reprimand, enforced suspension of operations or, in extreme cases, withdrawal by the authorities of operating licences. This risk is further exacerbated by continuously increasing regulatory scrutiny of financial institutions as well as substantial increases in the quantum of applicable fines and penalties. Moreover, litigation by private parties against financial institutions has substantially increased in recent years. Accordingly, ~~BNPP~~ the BNP Paribas Group faces significant legal risk in its operations, and the volume and amount of damages claimed in litigation, regulatory proceedings and other adversarial proceedings against financial services firms have substantially increased in recent years and may increase further. ~~BNPP~~ The BNP Paribas Group may record provisions in this respect as indicated in ~~N~~note ~~4.m~~ 4.p ~~"Provisions for contingencies and charges"~~ to the consolidated financial statements for the ~~period ended 30 June~~ year ending 31 December 2022~~, which are set out in the Third Amendment to the BNPP 2021 Universal Registration Document (in English)~~ ("Provisions for contingencies and charges").

In this respect, on 30 June 2014 ~~BNPP~~ the BNP Paribas Group entered into a series of agreements with, and was the subject of several orders issued by, ~~U.S.~~ US federal and New York state government agencies and regulatory authorities in settlement of investigations into violations of ~~U.S.~~ US laws and regulations regarding economic sanctions. The fines and penalties imposed on ~~BNPP~~ the BNP Paribas Group as part of this settlement included, among other things, the payment of monetary penalties amounting in the aggregate to USD ~~$~~8.97 billion (~~€~~ EUR 6.6 billion) and guilty pleas by BNP Paribas ~~S.A.~~ SA, the parent company of ~~BNPP~~ the BNP Paribas Group, to charges of having violated ~~U.S.~~ US federal criminal law and New York State criminal law. Following this settlement, ~~BNPP~~ the BNP Paribas Group remains subject to increased scrutiny by regulatory authorities (including via the presence of an independent consultant within ~~BNPP~~ the BNP Paribas Group) who are monitoring its compliance with a remediation plan agreed with them.

~~BNPP~~ The BNP Paribas Group is currently involved in various litigations and investigations~~,~~ as summarised in ~~N~~note 7.b *"Legal proceedings and arbitration"* to the ~~consolidated~~ financial statements for the ~~period~~ year ended ~~30 June~~ 31 December 2022~~, which are set out in the Third Amendment to the BNPP 2021 Universal Registration Document (in English)~~. It may become involved in further such matters at any point. No assurance can be given that an adverse outcome in one or more of such matters would not have a material adverse effect on ~~BNPP's~~ the BNP Paribas Group's operating results for any particular period.

6.3 *~~BNPP~~ the BNP Paribas Group could experience an unfavourable change in circumstances, causing it to become subject to a resolution proceeding: ~~holders of securities of BNPP'~~ BNP Paribas Group security hoders could suffer losses as a result.*

The BRRD, ~~the~~ SRM Regulation, the ordinance of 20 August 2015 and the ordinance of ~~20 August 2015~~ 21 December 2020, each as amended from time to time, confer upon the ACPR or the SRB the power to commence resolution proceedings for a banking institution, such as ~~BNPP~~ the BNP Paribas Group, with a view to ~~ensuring~~ ensure the continuity of critical functions, ~~avoiding~~ to avoid the risks of contagion and ~~recapitalizing~~ to recapitalise or ~~restoring~~ restore the viability of the institution. These powers are to be implemented so that, subject to certain exceptions, losses are borne first by shareholders, then by holders of additional capital instruments qualifying as Tier 1 and Tier 2 (such as subordinated bonds), then by the holders of non-preferred senior debt and finally by the holders of senior preferred debt, all in accordance with the order of their claims in normal insolvency proceedings. For reference, ~~BNPP's~~ the BNP Paribas Group's medium- to long-term wholesale financing at 31 December ~~2021~~ 2022 consisted of the following: ~~€10~~ EUR 12.5 billion ~~of~~ in hybrid Tier 1 debt, ~~€23~~ EUR 22.4 billion ~~of~~ in Tier 2 subordinated debt, ~~€70~~ EUR 72.2 billion ~~of~~ in senior unsecured non-preferred debt, ~~€69~~ EUR 60.7 billion ~~of~~ in senior unsecured preferred debt and ~~€17~~ EUR 12.7 billion ~~of~~ in senior secured debt.

Resolution authorities have broad powers to implement resolution measures with respect to institutions and groups subject to resolution proceedings, which may include (without limitation): the total or partial sale of the institution's business to a third party or a bridge institution, the separation of assets, the replacement or substitution of the institution as obligor in respect of debt instruments, the full or partial write-down of capital instruments, the dilution of capital instruments through the issuance of new equity, the full or partial write-down or conversion into equity of debt instruments, modifications to the terms of debt instruments (including altering the maturity and/or the amount of interest payable and/or imposing a temporary suspension on payments), discontinuing the listing and admission to trading of financial instruments, the dismissal of managers or the appointment of a special manager (*administrateur spécial*).

Certain powers, including the full or partial write down of capital instruments, the dilution of capital instruments through the issuance of new equity, the full or partial write down or conversion into equity of additional capital instruments qualifying as ~~t~~Tier 1 and ~~t~~Tier 2 (such as subordinated bonds), can also be exercised as a precautionary measure, outside of resolution proceedings and/or pursuant to the European Commission's State Aid framework if the institution requires exceptional public financial support.

The implementation of these tools and powers with respect to ~~BNPP~~ the BNP Paribas Group may result in significant structural changes to ~~BNPP~~ the BNP Paribas Group (including as a result of asset or business sales or the creation of bridge institutions) and in a partial or total write down, modification or variation of claims of shareholders and creditors. Such powers may also result, after any transfer of all or part of ~~BNPP's~~ the BNP Paribas Group's business or separation of any of its assets, in the holders of securities (even in the absence of any such write down or conversion) being left as the creditors of ~~BNPP~~ the BNP Paribas Group whose remaining business or assets are insufficient to support the claims of all or any of the creditors of ~~BNPP~~ the Group.

7. Risks related to ~~BNPP's~~ the BNP Paribas Group's growth in its current environment

7.1 *~~Epidemics and pandemics, including the ongoing coronavirus (COVID 19) pandemic and their economic consequences may adversely affect BNPP's business, operations, results and financial condition.~~ Should BNPP the BNP Paribas Group fail to implement its strategic objectives or to achieve its published financial objectives or should its results not follow stated expected trends, the trading price of its securities could be adversely affected.*

~~A global pandemic linked to a novel strain of coronavirus (COVID-19) has severely disrupted economies and financial markets worldwide since 2020. The introduction of lockdown measures and other restrictions initially caused economies in many regions to contract, trade to decline, production capacity to decrease, growth forecasts to be cut and supply chains to be disrupted. In a second phase, the rollout of vaccination campaigns and the adaptation of economic actors allowed the gradual adaptation of these measures and restrictions, leading to a recovery in economic activity.As a result, various growth forecasts converge on a strong economic recovery.~~

~~Nevertheless, uncertainties remain as to the strength and sustainability of the recovery of the public health situation (e.g. the appearance of new strains of the virus) and the reaction to the containment measures adopted by some Asian countries in the first half of 2022), which could lead to a further deterioration of the situation. Various complicating factors will continue to affect the trajectory of economic recovery. International supply chains – which had been strained severely by the pandemic-related mobility restrictions – remain heavily disrupted, generating shortages of certain consumer goods (such as a dearth of semiconductors causing delays~~

~~in the production of telephones and automobiles) and oil and gas supply and labour market constraints, having both specific (for example, raw materials price increases) and general (inflation rate) effects on prices..~~

~~Further, while various governments and central banks implemented and supplemented measures to support the economy and its recovery (to mitigate the adverse economic and market consequences of the pandemic) there can be no assurance that such measures will suffice to redress the pandemic's negative impact on the regional or global economy over time, entirely compensate for or mitigate regional or global recessions (which occurred and could reoccur), or fully and over time prevent possible disruptions to the financial markets.The lifting of government support measures could also harm economic activity and the financial strength of economic actors. Overall, the crisis has impacted and may continue to impact the economies of the principal countries where the Group operates, particularly its domestic markets (France, Italy, Belgium and Luxembourg), which collectively represented 57% of its total gross credit exposures as of 31 December 2021. The Group's results and financial condition have been and could continue to be adversely impacted by the effects of the crisis related to the pandemic and the resulting disruption of economic activity in the Group's principal markets. In particular, the crisis significantly affected the Group's cost of risk in 2020, reflecting macroeconomic projections based on various scenarios applying the framework in place prior to the crisis. Under this framework, macroeconomic projections (specifically GDP estimates and forecasts) are key to calculating the cost of risk, and the consequences of the health crisis included a decrease in GDP growth estimates for many of the Group's markets. The cost of risk calculation also takes into account the specific dynamics of the crisis in 2020, along with anticipated future impacts on credit and counterparty risk ,including the consequences of lockdown measures on economic activity and the impact of government support measures and decisions. These factors contributed to the substantial increase in the Group's cost of risk in 2020 (66 basis points).~~

~~The 2021 financial year showed an improvement with an increase in revenues of 4.4% to €46,235 million and an increase in net income attributable to the Group due to the increase in Domestic Markets revenues (+5.2% compared to 2020) with the rebound of the economy and the resilience of CIB revenues (+3.4% compared to 2020), but also by the decrease in the cost of risk (-48.8% compared to 2020), particularly in connection with improving economic forecasts. Nevertheless, revenues in the International Financial Services businesses remain impacted by the consequences of the health crisis (-1.2% compared to 2020).~~

~~Developments in the current health crisis and market conditions have characteristics that could increase the probability and magnitude of various existing risks faced by the Group such as:~~

~~(a) pressure on revenues due in particular to:~~

~~(i) the consequences of the low interest rate environment of the last few years (even if this is gradually being reversed); and~~

~~(ii) lower revenues from fees and commissions;~~

~~(b) renewed heightened risk linked to an economic slowdown due to inflationary pressures (energy prices, labour market tensions), supply chain disruption or withdrawal of government support measures;~~

~~(c) risk of financial market disruption in the event of poorly anticipated changes in monetary policies; and~~

~~(d) higher risk-weighted assets due to the deterioration of risk parameters, hence affecting the Group's capital position.~~

~~The Group's results and financial condition could also be harmed by negative trends in the financial markets, to the extent that the pandemic initially caused extreme market conditions (such as, volatility spikes, a sharp drop in equity markets, tensions on spreads specific asset markets on hold). Uncertainties about the scope and durability of the economic recovery, the easing or strengthening of government support measures, and the pressures linked to supply chains and raw material procurement have generated and could generate unfavourable market conditions. Thus, unfavourable market conditions have had and could have an adverse impact on the Group's market activities, which accounted for 14.8% of its consolidated revenues in 2021, resulting in trading or other market-related losses , as seen in 2020, following restrictions implemented on short-selling and dividend distributions (notably €184 million in the first quarter of 2020 related to the European authorities' restrictions~~

~~on 2019 dividends). Further, certain of the Group's investment portfolios (for example, in its insurance subsidiaries) are accounted for on a mark-to-market basis and were impacted by adverse market conditions, particularly in the second quarter of 2020 and could continue to be impacted again in the future.~~

~~The extent to which the short, medium and long-term economic consequences of the pandemic will continue to affect the Group's results and financial condition will depend largely on:~~

~~(a) the intensity and duration of restrictive measures that have been put in place or their periodic reintroduction, depending on the evolution of the health situation;~~

~~(b) the timing and extent of a return to pre-pandemic lifestyles, business operations and economic interactions;~~

~~(c) the effects of the measures taken to date or future measures that may be taken by governments and central banks to attenuate the economic fallout of the pandemic or the terms and conditions for lifting these measures; and~~

~~(d) the duration and extent of the pandemic's remaining course, including the prospect of new waves or the appearance of new strains of the virus and, consequently, a reinstatement or strengthening of lockdown measures or other restrictions, such as in relation to travel, in the Group's various markets, as well as the pace and mechanisms of deployment of immunisation programmes. In addition, while the actions of European Union and member states' authorities (in particular, central banks and governments) in response to the pandemic have to date helped and may well continue to help attenuate its adverse economic and market consequences, the authorities have also issued and may continue to issue additional restrictions or recommendations in respect of banks' actions. In particular, in 2020 and 2021 they limited banks' flexibility in managing their business and taking action in relation to capital distribution, capital allocation and compensation policies.~~

~~Due to the unprecedented environment generated by the COVID-19 crisis, various pandemic-related uncertainties around public health, society and the economy persist. The consequences for the Group will depend on the duration of the impact of the crisis, the measures taken by governments and central banks and the ability of society to recover, and are therefore difficult to predict.~~

In connection with the publication of its ~~annual~~ results for the year ended 31 December 2021, ~~announced on 8 February 2022, BNPP~~ the BNP Paribas Group announced ~~a~~ its 2025 strategic plan ~~for the 2022-2025 period~~. The plan includes financial and operational objectives.~~, on a constant scope basis, as well as the expected impact of the redeployment of proceeds from the sale of Bank of the West, after adjusting for the dilutive effect of the disposal on BNPP's results.~~ When it published its results for the year ended 31 December 2022, the Group raised its objectives for 2025. ~~BNPP's~~ The BNP Paribas Group's actual results could vary significantly from these trends for a number of reasons, including the occurrence of one or more of the risk factors described elsewhere in this section, in particular~~,~~ as a result of macroeconomic developments such as inflation, the invasion of Ukraine and the residual ~~the~~ consequences of the ~~COVID-19~~ health crisis which have had and could continue to have major repercussions on the economic outlook and cause financial market disruptions. If ~~BNPP's~~ the BNP Paribas Group's results do not follow these trends, its financial condition and the value of its securities, as well as its financing costs, could be affected.

Additionally, ~~BNPP~~ the Group is pursuing an ambitious corporate social responsibility ("CSR") policy and is committed to making a positive impact on society with concrete achievements. In ~~2021~~2022, ~~BNPP~~ BNP Paribas strengthened its commitment to a sustainable economy and accelerated ~~decarbonisation~~ decarbonation strategies, with the signing of the Net Zero Banking Alliance, the Net Zero Asset Owner Alliance, and the Net Zero Asset Managers~~s~~ ~~I~~initiative. ~~BNPP~~ The Group is thus taking strong positions, as a founding member of the United Nations Principles for Responsible Banking, which commits it to align its strategy with the Paris Agreement and the Sustainable Development Goals ("SDGs"). As part of ~~BNPP~~ the Group's 2022-2025 strategic plan, it aims to mobilise ~~€~~ EUR 350 billion in ESG-related loans and bond issuances (loans to companies, institutions and individuals covering environmental and social issues and annual sustainable bonds issuances) and to have ~~€~~ EUR 300 billion in sustainable responsible investments under management by 2025 (~~for example,~~ BNP Paribas Asset Management~~'s~~ European open~~-ended~~ funds ~~distributed in Europe and~~ classified articles 8 and 9 as ~~funds that promote ESG characteristics or funds that have a sustainability objective for the purposes~~ defined by SFDR). In addition, in 2019, as part of the ~~Sustainable Finance Disclosure Regulation ("**SFDR**")).~~ fight against climate change, the BNP Paribas Group made new commitments to reduce its exposure to thermal coal to zero by 2030 in the OECD and by 2040 for the rest of the world. At the end of 2022, the BNP Paribas Group published its first climate alignment report and its targets for reducing carbon emission intensity by 2025 and is taking the necessary measures to align its credit portfolios with its carbon neutrality commitments. Finally, in January 2023, the Group strengthened its social commitment policy and is working alongside its clients as part of a global approach to the transition to a sustainable, low-carbon economy. Building on the expertise developed through the Low Carbon Transition Group, the Group announced new objectives that will result in an acceleration in the financing of low-carbon energy production and a reduction in the financing of fossil fuel production by 2030. If ~~BNPP~~ the Group fails to meet these targets, which depend in part on factors beyond its control, its reputation could be ~~harmed~~ affected.

7.2 *~~BNPP~~ The BNP Paribas Group may experience difficulties integrating businesses following acquisition transactions and may be unable to realise the benefits expected from such transactions.*

~~BNPP~~ The BNP Paribas Group engages in acquisition and combination transactions on a regular basis. ~~BNPP's~~ The BNP Paribas Group's most recent major such transactions were the integration of Deutsche Bank's ~~BNPP's~~ *Prime ~~Services~~ Brokerage & Electronic ~~Equities~~ Execution platform* ~~with Deutsche Bank~~ in 2019, the acquisition of 100% of Exane, previously 50% owned by ~~BNPP~~ BNP Paribas, finalised on 13 July 2021 and the acquisition of 100% of Floa, a subsidiary of Casino and Crédit Mutuel Alliance Fédérale (via the Banque Fédérative du Crédit Mutuel - BFCM) and one of the French leaders in innovative payments, finalised on 1 February 2022. These operational integration activities resulted, in ~~2021~~ 2022, in restructuring costs of ~~€164~~ EUR 188 million. Successful integration and the realisation of synergies require, among other things, proper coordination of business development and marketing efforts, retention of key members of management, policies for effective recruitment and training as well as the ability to adapt information and computer systems. Any difficulties encountered in combining operations could result in higher integration costs and lower savings or revenues than expected. There will accordingly be uncertainty as to the extent to which anticipated synergies will be achieved and the timing of their realisation. Moreover, the integration of ~~BNPP's~~ the BNP Paribas Group's existing operations with those of the acquired operations could interfere with its respective businesses and divert management's attention from other aspects of ~~BNPP's~~ the BNP Paribas Group's business, which could have a negative impact on ~~BNPP's~~ the BNP Paribas Group's business and results. In some cases, moreover, disputes relating to acquisitions may have an adverse impact on the integration process or have other adverse consequences, including financial ones.

Although ~~BNPP'~~ the BNP Paribas Group undertakes an in-depth analysis of the companies it plans to acquire, such analyses often cannot be complete or exhaustive. In the event that ~~BNPP~~ the BNP Paribas Group is unable to conduct comprehensive due diligence prior to an acquisition, it may acquire doubtful or troubled assets or businesses that may be unprofitable or have certain potential risks that only materialise after the acquisition. The acquisition of an unprofitable business or a business with materialised risks may have a significant adverse effect on ~~BNPP's~~ the BNP Paribas Group's overall profitability and may increase its liabilities.

7.3 *~~BNPP's~~ The BNP Paribas Group's current environment may be affected by the intense competition amongst banking and non-banking operators, which could adversely affect ~~BNPP's~~ the BNP Paribas Group's revenues and profitability.*

Competition is intense in all of ~~BNPP's~~ the BNP Paribas Group's primary business areas in France and the other countries in which it conducts a substantial portion of its business, including other European countries and the

United States. Competition in the banking industry could intensify as a result of consolidation in the financial services area, as a result of the presence of new players in the payment and the financing services area or the development of crowdfunding platforms, as well as the continuing evolution of consumer habits in the banking sector. While ~~BNPP~~ the BNP Paribas Group has launched initiatives in these areas, such as the debut of Hello bank! and its acquisition~~s~~ of Nickel ~~and~~ or Floa, competitors subject to less extensive regulatory requirements or to less strict capital requirements (e.g.~~,~~ debt funds, shadow banks), or benefiting from economies of scale, data synergies, ~~or~~ technological innovation (e.g.~~,~~ Internet and mobile operators, digital platforms, fintechs), or free access to customer financial data could be more competitive by offering lower prices and more innovative services to address the new needs of consumers. New technologies that facilitate or transform transaction processes and payment systems, such as blockchain technologies and related services, or that could significantly impact the fundamental mechanisms of the banking system, such as central bank digital currencies ~~("CBDC"),~~ have been developed in recent years or could be developed in the near future. While it is difficult to predict the effects of these developments and the regulations that apply to them, the use of such technology could nevertheless reduce the market share of banks, including ~~BNPP~~ the BNP Paribas Group, secure investments that otherwise would have used technology used by more established financial institutions, such as ~~BNPP~~ the BNP Paribas Group or, more broadly, lead to the emergence of a different monetary system in which the attractiveness of using established financial institutions, such as ~~BNPP~~ the BNP Paribas Group would be affected. If such developments continue to gain momentum, particularly with the support of governments and central banks, ~~and~~ if ~~BNPP~~ the BNP Paribas Group is unable to respond to the competitive environment in France or in its other major markets by offering more attractive, innovative and profitable product and service solutions than those offered by current competitors or new entrants or if some of these activities were to be carried out by institutions other than banks, it may lose market share in key areas of its business or incur losses on some or all of its activities. In addition, downturns in the economies of its principal markets could add to the competitive pressure, through, for example, increased price pressure and lower business volumes for ~~BNPP~~ the BNP Paribas Group and its competitors. It is also possible that the imposition of more stringent requirements (particularly capital requirements and business restrictions) on large or systemically significant financial institutions~~,~~ that new players may not be subject to~~,~~ could lead to distortions in competition in a manner adverse to large private sector institutions such as ~~BNPP~~ the BNP Paribas Group.

7.4 *~~BNPP~~ The BNP Paribas Group could experience business disruption and losses due to risks related to environmental, social and governance ("ESG") issues, particularly relating to climate change, ~~risks~~ such as transition risks, physical risks or liability risks.*

~~BNPP's~~ The BNP Paribas Group is exposed to risks related to climate change, either directly through its own operations or indirectly through its financing and investment activities. There are two main types of risks related to climate change: (i) transition risks, which result from changes in the behaviour of economic and financial actors in response to the implementation of energy policies or technological changes~~;~~ for a transition to a low-carbon economy; and (ii) physical risks, which result from the direct impact of climate change on people and property through extreme weather events or long-term risks such as rising water levels or increasing temperatures. Physical risk can spread throughout the value chain of the BNP Paribas Group's clients, which can lead to a payment default and thus generate financial losses, while the process of reducing emissions is likely to have a significant impact on all sectors of the economy by affecting the value of financial assets and corporate profits.

In addition, liability risks may ~~arise~~ flow from both categories of risk. They correspond to the ~~damages~~ financial compensation that ~~a legal entity~~ can be claimed by individuals, companies, governments or non-governmental organisations (NGOs) that may affected by climate change events, activities or effects and who would ~~have to pay if it were found to be responsible~~ seek to hold actors in the financial sector accountable for ~~global warming~~. ~~BNPP~~ financing, facilitating or otherwise contributing to such events, activities, or effects. In recent years, activism by shareholders, activist funds, NGOs and others, particularly on ESG issues, has been directed against many public companies. These initiatives include requiring companies to disclose material information about their ESG-related actions and commitments and, in some cases, seeking to force them to make strategic and business changes. In some jurisdictions, financial sector actors may also face legal action from individuals, companies, governments or NGOs, groups or private persons.

Policy and regulatory initiatives and frameworks, including at the French, European Union and international levels, concerning climate change and sustainability, as well as voluntary and joint commitments through industry alliances, create increasing legal, regulatory and reputational risks. The ESG regulatory framework is constantly changing, evolving and continuing to evolve rapidly. It includes, among other things, requirements in terms of disclosure and the integration of climate risks into risk measurement and management systems, as well as a general duty of care (see section 6.1 *Laws and regulations adopted in recent years, as well as current and future legislative and regulatory developments, may significantly impact the BNP Paribas Group and the financial and economic environment in which it operates*). These initiatives and frameworks overlap in some respects and are not always consistent in their objectives, resulting in regulatory complexity and, in some cases, a lack of clarity and difficulty in interpretation. Non-compliance by the Group in its business and disclosure with these and other regulatory requirements, as well as any other regulations concerning the transition to a lower carbon economy, climate change, sustainability or energy-related investments, could have a negative impact on its business, the value of its investments and its reputation.

~~BNPP~~ BNP Paribas is progressively integrating the assessment of these risks into its risk management system. ~~BNPP~~ The Group monitors these risks in the conduct of its business, in the conduct of its counterparties' business, and in its investments on its own behalf and on behalf of third parties. In this respect, the specific credit policies and the General Credit Policy have been enhanced ~~since~~ as from 2012 and 2014 respectively, with the addition of ~~relevant~~ clauses relating to ~~in terms of~~ social and environmental responsibility. In addition, the development of regulatory requirements in this area could lead to an increase in ~~the~~ litigation against financial institutions ~~face~~ in ~~connection with~~ relation to climate change and other related issues. ~~BNPP~~ The Group could thus be held liable for ~~failures in the~~ transaction execution ~~of some of its operations, for example in the event of its~~ failings such as inadequate assessment of the environmental, social and governance criteria of certain financial products.

In addition, ~~S~~sector-specific policies and policies excluding certain environmental, social and governance ("**ESG**") sectors from financing have also been put in place~~.~~ ~~In 2019, as part of~~ and the ~~fight against climate change, BNPP made new commitments~~ BNP Paribas Group will have to ~~reduce~~ adapt its activities ~~exposure to thermal coal to zero by 2030 in the OECD and by 2040 for the rest of the world~~.

~~BNPP is thus taking strong positions, as a founding member of the United Nations Principles for Responsible Banking, which commits it to align its strategy with the Paris Agreement~~ and the selection of its counterparties appropriately in order to achieve its ~~SDGs. As part of BNPP's 2022-2025~~ strategic objectives (see section 7.1 *Should the BNP Paribas Group fail to implement its strategic objectives or to achieve its published financial objectives, or should its results not follow stated expected trends, the trading price of its securities could be adversely affected*). ~~plan, it aims to mobilize €350 billion in ESG-related loans and bond issuances (loans to companies, institutions and individuals covering environmental and social issues and annual sustainable bonds issuances) and to have €300 billion in sustainable responsible investments under management by 2025 (for example, BNP Paribas Asset Management's open-ended funds distributed in Europe and classified as funds that promote ESG characteristics or funds that have a sustainability objective for the purposes of SFDR). By the end of 2015, BNPP had already significantly strengthened its criteria for financing and investing in the coal sector, and in 2017, it was the first bank to announce the cessation of its financing activities for companies that derive most of their revenues from non-conventional hydrocarbons, measures that remain to date among the most advanced in the sector. These decisions are also reflected in the energy mix that BNPP finances. In 2022, BNPP published its first climate alignment report and its targets for reducing carbon emission intensity by 2025. BNPP also supports its clients, both individuals and businesses, in their transition to a low-carbon economy. BNPP also aims to reduce the environmental footprint of its own operations.~~

Despite the actions taken by ~~BNPP~~ the BNP Paribas Group to monitor risks and combat climate change, the physical, transitional or liability risks related to climate change or any delay or failure to implement them ~~BNPP's actions~~, could have a material adverse effect on ~~BNPP's~~ the Group's business~~, or~~ financial condition, ~~and could result in litigation~~ or reputation.

7.5 *Changes in certain holdings in credit or financial institutions could have an impact on ~~BNPP's~~ the BNP Paribas Group's financial position.*

Certain classes of assets may carry a high risk-weight of 250%. ~~These assets~~ They include: credit or financial institutions consolidated under the equity method within the prudential scope, (excluding insurance); significant financial interest in credit or financial institutions in which ~~BNPP~~ the BNP Paribas Group holds a stake of more than 10%; and deferred tax assets that rely on future profitability and arise from temporary differences.

The risk-weighted assets carrying a risk-weight of 250% amounted to ~~€18~~ EUR 20 billion at 31 December ~~2021~~ 2022, or ~~2%~~ 3% of the total risk-weighted assets of ~~BNPP~~ the BNP Paribas Group. ~~They amounted to €20 billion, representing 3% of BNPP's total risk-weighted assets at 30 September 2022~~. ~~If BNPP~~ the BNP Paribas Group increases the amount of heavy risk-weighted assets (either by increasing the proportion of such heavy risk-weighted assets in its overall asset portfolio or due to an increase of the regulatory risk-weighting applicable to these assets), its capital adequacy ratios ~~may be lowered~~ could decrease. "

AMENDMENTS TO THE DOCUMENTS INCORPORATED BY REFERENCE

On 24 March 2023, BNPP filed with the French *Autorité des marchés financiers* (**AMF**) the *Document d'Enregistrement Universel au 31 décembre 2022 et rapport financier annuel* in English, including the English version of the audited financial information of BNPP as at 31 December 2022 and the audit report thereon, which, other than the sections entitled "Persons Responsible for the Universal Registration Document" and the "Table of Concordance", is incorporated in, and forms part of, the Base Prospectus by virtue of this Third Supplement.

On 31 March 2023, BNPP published a press release relating to the launch of the first tranche of the share buyback programme planned for 2023, which, by virtue of this Third Supplement, is incorporated in, and forms part of, the Base Prospectus.

On 3 May 2023, BNPP filed with the French *Autorité des marchés financiers* (**AMF**) the first *Amendement au Document d'Enregistrement Universel 2022* in English, which, other than the sections entitled "Person Responsible for the Universal Registration Document" and the "Table of Concordance", is incorporated in, and forms part of, the Base Prospectus by virtue of this Fifth Supplement.

The "**DOCUMENTS INCORPORATED BY REFERENCE**" section on pages 78 to 88 of the Base Prospectus (which was amended by virtue of the Second Supplement) is amended as follows:

(a) paragraphs (d), (e), (f), (g), (h), (i), (j), (k) and (l) (which were in the Base Prospectus or added to the Base Prospectus by virtue of the First Supplement and the Second Supplement) are deleted;

(b) the following paragraphs (d) and (e) are added under paragraph (c):

"(d) BNPP's *Document d'Enregistrement Universel au 31 décembre 2022 et rapport financier annuel* in English, including the consolidated financial statements for the year ended 31 December 2022 and the statutory auditors' report thereon (other than the sections entitled "Persons Responsible for the Universal Registration Document" and the "Table of Concordance") (the "**BNPP 2022 Universal Registration Document (in English)**");

(e) the press release dated 31 March 2023 relating to the launch of the first tranche of the share buyback programme planned for 2023 (the "**31 March 2023 Press Release**"); and

(f) the first *Amendement au Document d'Enregistrement Universel 2022* (in English), other than the sections entitled "Person Responsible for the Universal Registration Document" and the "Table of Concordance", with filing number D.23-0143-A01 (the "**First Amendment to the BNPP 2022 Universal Registration Document (in English)**"),"; and

(c) the table entitled "BNP PARIBAS" on pages 81 to 87 of the Base Prospectus (which was amended by virtue of the Second Supplement) is deleted and replaced with the following:

"***BNP PARIBAS***			
	Page Reference		
Information incorporated by reference *Headings as listed by Annex 1 of the Commission Delegated Regulation (EU) 2019/980*	**BNPP 2021 Universal Registration Document (in English) -** *https://invest.bnpparibas/en/groupe-de-document/universal-registration-document-and-annual-financial-report-2021*	**BNPP 2022 Universal Registration Document (in English) -** *https://invest.bnpparibas/en/document/universal-registration-document-and-annual-financial-report-2022*	**First Amendment to the BNPP 2022 Universal Registration Document (in english) -** *https://invest.bnpparibas/en/document/1st-amendment-to-the-2022-universal-registration-document*

2.	**Statutory auditors**	686	742	109
3.	**Risk factors**	309-323	315-330	122
4.	**Information about the Issuer**	4-6; 695-698	4-6; 751-753	N/A
5.	**Business overview**			N/A
5.1	Principal activities	7-18; 218-221; 670-676	7-19; 223-226; 726-732	N/A
5.2	Principal markets	7-18; 218-221; 670-676	7-19; 223-226; 726-732	N/A
5.3	History and development of the issuer	6	6	N/A
5.4	Strategy and objectives	157-160; 582-583; 630-640; 650-651	153-156; 626-627; 686-687; 703	N/A
5.5	Possible dependency	668	724	N/A
5.6	Basis for any statements made by the issuer regarding its competitive position	7-18; 132-148	7-19; 128-144	N/A
5.7	Investments	267; 570; 628-629; 669	274-275; 612; 672-673; 725	N/A
6.	**Organisational structure**			
6.1	Brief description	4; 650-651	4; 686-687	N/A
6.2	List of significant subsidiaries	281-289; 562-569; 670-675	287-295; 604-611; 726-731	N/A

7.	**Operating and financial review**			
7.1	Financial situation	160; 180, 182; 532-533	156; 176; 178; 574-575	3-71
7.2	Operating results	132-148; 155-156; 163-169; 180; 219; 532	128-144; 151-152; 159-165; 176; 224; 574	59-71
8.	**Capital resources**			
8.1	Issuer's capital resources	184-185; 557	180-181; 599	50-52; 56-58; 75-82
8.2	Sources and amounts of cash flows	183	179	N/A
8.3	Borrowing requirements and funding structure	160; 482-498	156; 502-519	16
9.	**Regulatory environment**	299; 306-308	305; 313-314	N/A
10.	**Trend information**			
10.1	Main recent trends	157-160; 669	153-156; 725	84
10.2	Trends likely to have a material impact on the Issuer's outlook	157-160; 669	153-156; 725	84
11.	**Profit forecasts or estimates**	N/A	N/A	N/A
12.	**Administrative,**			

	management, and supervisory bodies, and senior management			
12.1	Administrative and management bodies	35-50; 114	35-48; 110	N/A
12.2	Administrative and management bodies' conflicts of interest	55-56; 70-71; 81-110	53-54; 67-68; 78-106	N/A
13.	**Remuneration and benefits**			
13.1	Total amounts set aside or accrued by the Issuer or its subsidiaries to provide pension, retirement or similar benefits	81-110, 257-264; 277	78-106; 262-270; 283-284	86-108
13.2	Amount of remuneration paid and benefits in kind granted	81-110, 257-264; 277	78-106; 262-270; 283-284	86-108
14.	**Board practices**			
14.1	Date of expiry of	35-48	35-47	N/A

the current terms of office			
14.2 Information about members of the administrative bodies' service contracts with the Issuer	N/A	N/A	N/A
14.3 Information about the audit committee and remuneration committee	58-66	56-63	N/A
14.4 Corporate governance regime in force in the Issuer's country of incorporation	51-58	49-56	N/A
14.5 Potential material impacts on the corporate governance	35-48	35-47	N/A
15. Employees			
15.1 Number of employees	4; 614-615; 650; 695	4; 653-654; 686	N/A

15.2	Shareholdings and stock options	81-110; 204-205; 612-613	78-106; 208-209; 660-661	N/A
15.3	Information about members of the administrative bodies' service contracts with the Issuer	N/A	N/A	N/A
16.	**Major shareholders**			
16.1	Shareholders owning more than 5% of the Issuer's capital or voting rights	19; 20	20-21	N/A
16.2	Existence of different voting rights	19	20	N/A
16.3	Control of the Issuer	19; 20	20-21	N/A
16.4	Description of any arrangements, known to the Issuer, the operation of which may at a subsequen	20	21	N/A

	t date result in a change of control of the Issuer			
17.	**Related party transactions**	81-110; 278-279; 682-683	78-106; 284-285; 738-739	N/A
18.	**Financial information concerning the Issuer's assets and liabilities, financial position, and profits and losses**			
18.1	Historical financial information	5; 23; 132-290; 532-570	5; 24; 128-296; 574-612	59-71
18.2	Interim and other financial information	N/A	N/A	59-71
18.3	Auditing of historical annual financial information	291-296; 571-576	297-302; 613-618	N/A
18.4	Pro forma financial information	N/A	N/A	N/A
18.5	Dividend policy	23; 26-27; 133; 158; 160; 560	24; 27-28; 156; 602	N/A
18.6	Legal and arbitration proceedings	266-267	273-274	84-85

18.6.1 Information on any governmental, legal, or arbitration proceedings during a period covering at least the previous 12 months	N/A	N/A	84-85
18.7 Significant change in the Issuer's financial or trading position	669	725	84
19. Additional information			
19.1 Share capital	19; 264-266; 551-553; 677; 702	20; 271-273; 593-595; 733; 760	N/A
19.2 Memorandum and articles of association	677-682	733-738	N/A
20. Material contracts	668	724	N/A
21. Documents on display	668	724	84

(d) the following table is inserted immediately following the table entitled "BNP PARIBAS" on pages 81 to 87 of the Base Prospectus:

31 March 2023 Press Release	
https://invest.bnpparibas/en/document/bnp-paribas-launches-the-first-tranche-of-the-share-buyback-programme-planned-for-2023	
Press release dated 31 March 2023 relating to the launch of the first tranche of the share buyback programme planned for 2023	Pages 1 to 3 of the 31 March 2023 Press Release".

(e) in the first paragraph on page 88 of the Base Prospectus, the first sentence is amended as follows:

"Each of the documents incorporated by reference in (c) to (f) above will only be made available by the relevant Issuer or the Guarantor (if applicable) to which such document relates.".

AMENDMENTS TO THE DESCRIPTION OF BNPP B.V.

The "**Description of BNPP B.V.**" on pages 442 to 445 of the Base Prospectus is amended by the deletion of the sentence under the heading "**3. Trend Information**" on page 443 of the Base Prospectus and its replacement with the following:

" Due to BNPP B.V.'s dependence, upon BNPP its trend information is the same as that for BNPP set out on pages ~~157 to 160 and 669 of the BNPP 2021 Universal Registration Document (in English)~~ 153 to 156 and 725 of the BNPP 2022 Universal Registration Document (in English).".

AMENDMENTS TO THE DESCRIPTION OF BNPP

The paragraph under the heading "**Description of BNPP**" on page 446 of the Base Prospectus is deleted and replaced with the following:

"A description of BNPP can be found on pages 4 to 6 of the BNPP ~~2021~~2022 Universal Registration Document (in English), which is incorporated by reference herein.".

AMENDMENTS TO THE GENERAL INFORMATION SECTION

The "**GENERAL INFORMATION**" section on pages 479 to 486 of the Base Prospectus is amended as follows:

(a) the first paragraph under the heading "**5. Material Adverse Change**" on page 479 of the Base Prospectus (which was amended by virtue of the Second Supplement) is amended as follows:

"There has been no material adverse change in the ~~financial position or~~ prospects of BNPP or the Group since 31 December ~~2021~~2022 (being the end of the last financial period for which audited financial statements have been published).";

(b) the paragraph under the heading "**6. Legal and Arbitration Proceedings**" on page 480 of the Base Prospectus (which was amended by virtue of the Second Supplement) is is amended as follows:

"Save as disclosed on pages ~~266~~ 273 and ~~267~~ 274 of the BNPP ~~2021~~ 2022 Universal Registration Document (in English), ~~pages 111 and 112 of the First Amendment to the BNPP 2021 Universal Registration Document (in English), pages 182 and 183 of the Third Amendment to the BNPP 2021 Universal Registration Document (in English), pages 102 and 103 of the Fourth Amendment to the BNPP 2021 Universal Registration Document (in English) and pages 117 and 118 of the Sixth Amendment to the BNPP 2021 Universal Registration Document (in English)~~ and pages 84 and 85 of the First Amendment to the BNPP 2022 Universal Registration Document (in English), there have been no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which ~~the Issuer~~ BNPP is aware), during the period covering the twelve (12) months prior to the date of this Base Prospectus which may have, or have had in the recent past, significant effects on BNPP's and/or the Group's financial position or profitability."

(c) the first paragraph under the heading "**7. Significant Change**" on page 480 of the Base Prospectus (which was amended by virtue of the Second Supplement) is amended as follows:

"There has been no significant change in the financial performance or position of BNPP or the Group since ~~30 September 2022~~ 31 March 2023 (being the end of the last financial period for which interim financial statements have been published).";

(d) the first paragraph under the heading "**10. Board of Directors** " on page 480 of the Base Prospectus is amended as follows:

"The members of the Board of Directors of BNPP are displayed on pages 35 to ~~50~~ 48 of the BNPP ~~2021~~2022 Universal Registration Document (in English) relating to BNPP which is incorporated by reference herein.";

(e) the table and the notes thereto under the heading "**16. Capitalization and Medium and Long Term Debt Indebtedness Over One Year of BNPP and the BNP Paribas Group**" on pages 482 to 485 of the Base Prospectus (which were amended by virtue of the Second Supplement) are amended as follows:

"The following table~~[1]~~ sets forth the consolidated capitalization and medium to long term indebtedness (i.e. of which the unexpired term to maturity is more than one year) of the Group as of ~~30 September 2022~~ 31 March 2023 using the Group's accounting method, and 31 December ~~2021~~ 2022 using the Group's prudential scope ~~of consolidation~~.

~~The "prudential scope of consolidation", as defined in EU Regulation No. 575/2013 on capital requirements for credit institutions and investment firms is used by the Group in the preparation of its "Pillar 3" disclosure set out in Chapter 5 of the BNPP 2021 Universal Registration Document (in English). It differs from the "accounting scope of consolidation" used by the Group in the preparation of its consolidated financial statements under IFRS~~

~~as adopted by the European Union. The principal differences between the two scopes of consolidation are summarised in note 1 to the table below.~~

~~Except as set forth in this section, there has been no material change in the capitalisation of the Group since 30 September 2022.~~

~~For the avoidance of doubt, the figures in the table below are derived from the Group's unaudited consolidated financial statements as of and for the nine months year ended 30 September 2022 and the Group's audited consolidated financial statements as of and for the year ended 31 December 2021 (which do not include prudential deductions), and are used for the purposes of the Group's prudential capital calculations.~~

(in millions of euros)	**March 31, 2023 prudential**	**December 31, 2022 prudential**
Medium- and Long-Term Debt (of which the unexpired term to maturity is more than one year)[1]		
Senior preferred debt at fair value through profit or loss	48,141	40,555
Senior preferred debt at amortised cost	20,315	25,241
Total Senior Preferred Debt	**68,456**	**65,796**
Senior non preferred debt at fair value through profit or loss	3,876	3,933
Senior non preferred debt at amortised cost	61,720	62,536
Total Senior Non Preferred Debt	**65,596**	**66,469**
Redeemable subordinated debt at amortised cost	21,253	21,444
Undated subordinated notes at amortised cost[2]	506	494
Undated participating subordinated notes at amortised cost[3]	225	225
Redeemable subordinated debt at fair value through profit or loss	16	25
Perpetual subordinated debt at fair value through profit or loss[4]	656	906
Preferred shares and equivalent instruments[5]	13,471	9,207
Total Subordinated Debt	**36,127**	**32,301**
Issued Capital[6]	2,469	2,469
Additional paid-in capital	23,911	23,878
Retained earnings	87,740	77,587
Unrealized or deferred gains and losses attributable to shareholders	-9,199	216
Total Shareholders' Equity and Equivalents (net of proposed dividends)	**104,921**	**104,150**
Minority Interests (net of proposed dividends)[5]	**4,472**	**4,234**
Total Capitalization and Medium Long Term Debt Indebtedness	**279,572**	**272,950**

(1) All medium- and long-term senior preferred debt of BNPP ranks equally with deposits and senior to the category of senior non-preferred debt first issued by BNPP in January 2017. The subordinated debt of BNPP is subordinated to all of its senior debt (including both senior preferred and senior non-preferred debt). The ~~Issuer~~ BNPP and its subsidiaries issue medium- to long-term

debt on a continuous basis, particularly through offers to the public exempted from the obligation to publish a prospectus (ex private placements) in France and abroad.

~~Euro against foreign currency as at 31 December 2019, CAD = 1.457, GBP = 0.847, CHF = 1.085, HKD = 8.732, JPY = 121.903, USD = 1.122.~~

~~Euro against foreign currency as at 31 December 2020, CAD = 1.555, GBP = 0.893, CHF = 1.082, HKD = 9.465, JPY = 126.099, USD = 1.221.~~

Euro against foreign currency as at 31 December 2021, CAD = 1.439, GBP = 0.841, CHF = 1.038, HKD = 8.875, JPY = 131.009, USD = 1.138.

Euro against foreign currency as at ~~30 September~~ 31 December 2022, CAD = 1.~~355~~448, GBP = 0.~~878~~887, CHF = 0.~~967~~989, HKD = ~~7.699~~ 8.343, JPY = ~~141.991~~ 140.158, USD = ~~0.981~~ 1.1.

Euro against foreign currency as at March 31, 2023 CAD = 1.469, GBP = 0.880, CHF = 0.992, HKD = 8.522, JPY = 144.047, USD = 1.086.

(2) At ~~30 September~~ ~~2022~~ 31 March 2023, the remaining subordinated debt included €506 million of undated floating-rate subordinated notes (TSDIs).

(3) Undated participating subordinated notes issued by BNP SA in July 1984 for a total amount of €337 million are redeemable only in the event of the liquidation of BNPP, but may be redeemed in accordance with the terms specified in the French law of 3 January 1983. The number of notes outstanding as at ~~30 September~~ ~~2022~~ 31 March 2023 was 1,434,092 amounting to approximately €219 million. Payment of interest is obligatory, but the Board of Directors may postpone interest payments if the Ordinary General Meeting of shareholders held to approve the financial statements notes that there is no income available for distribution. Additionally, as at ~~30 September~~ ~~2022~~ 31 March 2023, there were 28,689 undated participating subordinated notes issued by Fortis Banque France (amounting to approximately €4 million) and 6,773 undated participating subordinated notes issued by Banque de Bretagne (amounting to approximately €2 million) outstanding; both entities have since been merged into BNPP.

(4) Subordinated debt corresponds to an issue of Convertible And Subordinated Hybrid Equity-linked Securities (CASHES) made by Fortis Bank SA/NV (now acting in Belgium under the commercial name BNP Paribas Fortis) in December 2007, in an initial nominal amount of €3 billion, which has now been reduced ~~as of 30 September 2022~~ to an outstanding nominal amount of €~~948~~ 832 million corresponding to a market value of €~~696~~ 656 million ~~as of such date~~ at 31 March 2023. They bear interest at a floating rate equal to three-month EURIBOR plus a margin equal to 2% paid quarterly in arrears. The CASHES are undated but may be exchanged for Ageas (previously Fortis SA/NV) shares at the holder's sole discretion at a price per Ageas share of €239.40. However, as of 19 December 2014, the CASHES are subject to automatic exchange into Ageas shares if the price of Ageas shares is equal to or higher than €359.10 for twenty consecutive trading days. The principal amount will never be redeemed in cash. The rights of CASHES holders are limited to the Ageas shares held by BNP Paribas Fortis and pledged to them

. Ageas and BNP Paribas Fortis have entered into a Relative Performance Note (RPN) contract, the value of which varies contractually so as to offset the impact on BNP Paribas Fortis of the relative difference between changes in the value of the CASHES and changes in the value of the Ageas shares.

On 7 May 2015, BNPP and Ageas reached an agreement which allows BNPP to purchase outstanding CASHES subject to the condition that these are converted into Ageas shares, leading to a proportional settlement of the RPN. The agreement between Ageas and BNPP expired on 31 December 2016 and has not been renewed.

On 24 July 2015, BNPP obtained a prior agreement from the European Central Bank permitting it to purchase outstanding CASHES up to a nominal amount of €200 million. In 2016, BNPP used such agreement to purchase €164 million outstanding CASHES, converted into Ageas shares.

On 8 July 2016, BNPP obtained a new agreement from the European Central Bank which superseded the prior agreement permitting it to purchase outstanding CASHES up to a nominal amount of €200 million. BNPP requested the cancellation of this agreement from the European Central Bank and the European Central Bank approved such cancellation in August 2017.

~~As at 30 September 2022 (following the expiry of the "grandfathering" period), the subordinated liability is no longer eligible tofor inclusion in Tier 1 capital.~~ Since 1 January 2022, the subordinated liability have been no longer eligible to Tier 1 capital (considering both the transitional period, from the 1 January 2013 to 1 January 2022, and the cancellation of the aforementioned agreement).

(5) Consists of numerous issuances by BNPP in various currencies (i) over the 2005-2009 period, of undated deeply subordinated non-cumulative notes and (ii) since 2015, of perpetual fixed rate resettable additional tier 1 notes. The details of the debt instruments recognized as capital, as well as their characteristics, as required by Implementing Regulation No. 1423/2013, are available in the BNP Paribas Debt section of BNPP's investor relations website at www.invest.bnpparibas.com.

(6) At ~~30 September 2022~~ 31 March 2023, BNPP's share capital stood at €2,468,663,292 divided into 1,234,331,646 shares with a par value of €2 each."; and

(a) the paragraph under the heading "**18. Events impacting the solvency of BNPP**" on page 485 of the Base Prospectus (which was amended by virtue of the Second Supplement) is amended as follows:

"To the best of BNPP's knowledge, there have not been any recent events which are to a material extent relevant to the evaluation of BNPP's solvency since ~~30 September~~ 31 March 2023.";

(f) the paragraph under the heading "**19. Forward-Looking Statements**" on page 485 of the Base Prospectus is amended as follows**:**

"The BNPP ~~2020~~2021 Universal Registration Document (in English) and the BNPP ~~2021~~2022 Universal Registration Document (in English) (as defined in the "*Documents Incorporated by Reference*" section) and the other documents incorporated by reference (such sections being the "**BNP Paribas Disclosure**"), contain forward-looking statements. BNP Paribas, BNPP B.V. and the Group may also make forward-looking statements in their offering circulars, in press releases and other written materials and in oral statements made by their officers, directors or employees to third parties. Statements that are not historical facts, including statements about BNPP, BNPP B.V. or the Group's beliefs and expectations, are forward-looking statements. These statements are based on current plans, estimates and projections, and therefore undue reliance should not be placed on them. Forward-looking statements speak only as of the date they are made, and BNPP, BNPP B.V., and the Group undertake no obligation to update publicly any of them in light of new information or future events."; and

(g) the paragraph under the heading "**20. Presentation of Financial Information**" on page 485 of the Base Prospectus is amended as follows**:**

"Most of the financial data presented, or incorporated by reference, in this Base Prospectus are presented in euros.

The audited consolidated financial statements of BNPP for the years ended 31 December ~~2020~~ 2021 and 31 December ~~2021~~ 2022 have been prepared in accordance with International Financial Reporting Standards ("**IFRS**") as adopted by the European Union. IFRS differs in certain significant respects from generally accepted accounting principles in the United States ("**U.S. GAAP**"). The Group has made no attempt to quantify the impact of those differences. In making an investment decision, investors must rely upon their own examination of the Group, the terms of an offering and the financial information. Potential investors should consult their own professional advisors for an understanding of the differences between IFRS and U.S. GAAP, and how those differences might affect the information herein. The Group's fiscal year ends on 31 December and references in the BNPP ~~2020~~ 2021 Universal Registration Document (in English) and the BNPP ~~2021~~ 2022 Universal Registration Document (in English) and any amendment to the BNPP ~~2021~~ 2022 Universal Registration Document (in English) (in each case, as defined in "Documents Incorporated by Reference" below and incorporated by reference herein) to any specific fiscal year are to the 12-month period ended 31 December of such year.".

RESPONSIBILITY STATEMENT

Each of BNPP B.V. (in respect of itself) and BNPP (in respect of itself and BNPP B.V.) accepts responsibility for the information contained in this Third Supplement. To the best of the knowledge of each of BNPP B.V. and BNPP, the information contained herein is in accordance with the facts and this Third Supplement makes no omission likely to affect its import.

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