

INTRODUCTION

This summary should be read as an introduction to the Base Prospectus and the Final Terms to which this is annexed. Any decision to invest in any Notes should be based on a consideration of the Base Prospectus as a whole, including any documents incorporated by reference and the Final Terms. An investor in the Notes could lose all or part of the invested capital. Where a claim relating to information contained in the Base Prospectus and the Final Terms is brought before a court, the plaintiff may, under national law where the claim is brought, be required to bear the costs of translating the Base Prospectus and the Final Terms before the legal proceedings are initiated. Civil liability attaches only to the Issuer solely on the basis of this summary, including any translation of it, but only where the summary is misleading, inaccurate or inconsistent when read together with the other parts of the Base Prospectus and the Final Terms or where it does not provide, when read together with the other parts of the Base Prospectus and the Final Terms, key information in order to aid investors when considering whether to invest in the Notes.

You are considering the purchase of a product that is not simple and may be difficult to understand.

The Notes described in this Summary USD 2,532,000 Quanto USD 10.90% p.a. Barrier Reverse Convertible Quarterly Autocallable Notes linked to Nikkei 225, S&P 500 INDEX and EURO STOXX 50 Price EUR due 23 January 2024 (the "Notes"), with International Securities Identification Number (ISIN) XS2570627245, issued by Royal Bank of Canada (the "Issuer"), Royal Bank Plaza, 200 Bay Street, 8th Floor, South Tower, Toronto, Ontario, Canada M5J 2J5. The Issuer's Legal Entity Identifier (LEI) is ES7IP3U3RHIGC71XBU11.

The Base Prospectus has been approved as a base prospectus by the Central Bank of Ireland, New Wapping Street, North Wall Quay, Dublin 1, DO1 F7X3 on 29 July 2022 as supplemented on 31 August 2022, 6 December 2022 and 20 December 2022.

KEY INFORMATION ON THE ISSUER

Who is the Issuer of the securities?

The Issuer is incorporated and domiciled in Canada and is a Schedule 1 bank under the *Bank Act* (Canada) which constitutes its charter. The Issuer's Legal Entity Identifier (LEI) is ES7IP3U3RHIGC71XBU11.

Description of the Issuer: Royal Bank of Canada and its subsidiaries are referred to as the "RBC Group". Royal Bank of Canada is a global financial institution with a purpose-driven, principles-led approach to delivering leading performance. RBC Group's success comes from the 86,000+ employees who leverage their imaginations and insights to bring RBC Group's vision, values and strategy to life so it can help its clients thrive and communities prosper. As Canada's biggest bank, and one of the largest banks in the world based on market capitalization, RBC Group has a diversified business model with a focus on innovation and providing exceptional experiences to the Issuer's 17 million clients in Canada, the U.S. and 27 other countries. Royal Bank of Canada is the ultimate parent company and main operating company of the RBC Group.

Principal Activities of the Issuer: The Issuer's business segments are Personal & Commercial Banking, Wealth Management, Insurance, Investor & Treasury Services and Capital Markets. Personal & Commercial Banking provides a broad suite of financial products and services in Canada, the Caribbean and the U.S. Wealth Management serves high net worth and ultra-high net worth clients from the Issuer's offices in key financial centres mainly in Canada, the U.S., the U.K., Europe and Asia. Wealth Management offers a comprehensive suite of investment, trust, banking, credit and other wealth management solutions. It also provides asset management products to institutional and individual clients through its distribution channels and third-party distributors. Insurance offers a wide range of life, health, home, auto, travel, wealth, annuities and reinsurance advice and solutions, as well as creditor and business insurance services to individual, business and group clients. Investor & Treasury Services acts as a specialist provider of asset services, and a provider of cash management, transaction banking, and treasury services to institutional clients worldwide. It also provides Canadian dollar cash management, correspondent banking and trade finance to financial institutions globally and short-term funding and liquidity management for the Issuer. Capital Markets provides expertise in banking, finance and capital markets to corporations, institutional investors, asset managers, governments and central banks around the world. It serves clients from 58 offices in 14 countries across North America, the U.K. and Europe, and Australia, Asia and other regions.

Controlling Shareholders: To the extent known to the Issuer, the Issuer is not directly or indirectly controlled by any person.

Key managing directors: Andrew A. Chisholm (Toronto, Ontario), Jacynthe Côté (Montreal, Québec), Toos N. Daruvala (New York, New York), David F. Denison (Toronto, Ontario), Cynthia Devine (Toronto, Ontario), David I. McKay (Toronto, Ontario), Kathleen Taylor (Toronto, Ontario), Maryann Turcke (Toronto, Ontario), Bridget A. van Kralingen (New York, New York), Thierry Vandal (Mamaroneck, New York), Frank Vettese (Toronto, Ontario), Jeffery W. Yabuki (Incline Village, Nevada).

Statutory Auditor: PricewaterhouseCoopers LLP, PwC Tower, 18 York Street, Suite 2600, Toronto, Ontario, Canada M5J 0B2.

What is the key financial information regarding the Issuer?

Selected Consolidated Balance Sheet Information

	As at April 30, 2022	As at October 31, 2021	As at October 31, 2020
	<i>(in millions of Canadian dollars)</i>		
Loans, net of allowance for loan losses	774,464	717,575	660,992
Total assets	1,848,572	1,706,323	1,624,548
Deposits	1,151,597	1,100,831	1,011,885
Other liabilities	579,635	494,471	514,107
Subordinated debentures	10,276	9,593	9,867
Non-Controlling interests	101	95	103
Equity attributable to shareholders	104,304	98,667	86,664

Consolidated and Condensed Consolidated Statement of Income Information²

	Six-months ended April 30, 2022	Six-months ended April 30, 2021	Year ended October 31, 2021	Year ended October 31, 2020
	<i>(in millions of Canadian dollars, except per share amounts and percentage amounts)</i>			
Net interest income	10,545	9,889	20,002	20,835
Non-interest income	13,741	14,672	29,691	26,346
Total revenue	24,286	24,561	49,693	47,181
Provision for credit losses (PCL)	(237)	14	(753)	4,351
Insurance policyholder benefits, claims and acquisition expense	817	1,555	3,891	3,683
Non-interest expense	13,014	12,921	25,924	24,758
Net Income	8,348	7,862	16,050	11,437
Earnings per share				
– basic	\$5.81	\$5.42	\$11.08	\$7.84
– diluted	\$5.80	\$5.42	\$11.06	\$7.82
Return on common equity (ROE) ^{1,2}	17.9%	19.0%	18.6%	14.2%

1. This measure does not have a standardized meaning under generally accepted accounting principles (GAAP) and may not be comparable to similar measures disclosed by other financial institutions. For further details, refer to the Key performance and non-GAAP measures section of the 2021 MD&A in the 2021 Annual Report and the Key performance and non-GAAP measures section of the Second Quarter 2022 MD&A in the Second Quarter 2022 Report to Shareholders.
2. Average amounts are calculated using methods intended to approximate the average of the daily balances for the period. This includes average common equity used in the calculation of ROE. For further details, refer to the Key performance and non-GAAP measures section of the 2021 MD&A in the 2021 Annual Report and the Key performance and non-GAAP measures section of the Second Quarter 2022 MD&A in the Second Quarter 2022 Report to Shareholders.

The audit reports on historical financial information are not qualified.

What are the key risks that are specific to the Issuer?

Business and Economic Conditions: The Issuer's financial results may be affected to varying degrees by the general business and economic conditions in the geographic regions in which the Issuer operates. These conditions may include factors such as consumer saving and spending habits as well as consumer borrowing and repayment patterns, unemployment rates, the impact of containment measures associated with the COVID-19 pandemic or other health crises on businesses' operations, the level of business investment and overall business sentiment, the level of activity and volatility of the financial markets, inflation, the level of government spending, monetary policies that are adopted by the BoC, the Federal Reserve in the U.S., the European Central Bank in the European Union and monetary authorities in other jurisdictions in which the Issuer operates, and the fiscal policies of the governments of Canada, the U.S., Europe and such other jurisdictions. Such policies can also adversely affect the Issuer's clients and counterparties in Canada, the U.S. and internationally, which may increase the risk of default by such clients and counterparties. For example, economic downturns may result in higher unemployment rates and lower household incomes, lower corporate earnings, changes in business investment and consumer spending, and could adversely affect the Issuer's business, including but not limited to the demand for its loan and other products and result in lower earnings, including higher credit losses. The Issuer's financial results are also sensitive to changes in interest rates and to weaker investor confidence and market conditions, which may lead to lower client activity and unfavourable changes in earnings. Additional risks are emerging around how countries will seek to recoup the unprecedented levels of stimulus measures introduced in response to the COVID-19 pandemic and balance budgets in the future, and around the potential implications that a prolonged low interest rate environment will have, for example, on increasing wealth inequality and extended retirement ages, among others.

Information Technology and Cyber Risks: Information technology (IT) and cyber risks remain top risks, not only for the financial services sector, but for other industries worldwide. Cybersecurity is the risk to the business associated with cyber-attacks initiated to disrupt or disable the Issuer's operations or to expose or damage data. The Issuer continues to be subject to heightened risks in the form of cyberattacks, data breaches, cyber extortion and similar compromises, due to: (i) the size, scale, and global nature of the Issuer's operations; (ii) the Issuer's heavy reliance on the internet to conduct day-to-day business activities; (iii) the Issuer's intricate technological infrastructure; and (iv) the Issuer's use of third-party service providers. Additionally, clients' use of personal devices can create further avenues for potential cyber-related incidents, as the Issuer has little or no control over the safety of these devices. IT and cyber risks have increased during the COVID-19 pandemic, as increased malicious activities are creating more threats for cyberattacks including COVID-19 phishing emails, malware-embedded mobile apps that purport to track infection rates, and targeting of vulnerabilities in remote access platforms as many companies continue to operate with work from home arrangements. Resulting implications could include business interruptions, service disruptions, financial loss, theft of intellectual property and confidential information, litigation, enhanced regulatory attention and penalties, as well as reputational damage. Furthermore, the adoption of emerging technologies, such as cloud computing, AI and robotics, call for continued focus and investment to manage risks effectively. Not managing this risk effectively may have an adverse effect on the Issuer's financial performance and condition.

Privacy, Data and Third Party Related Risks: The collection, use and sharing of data, as well as the management and governance of data, are increasingly important as the Issuer continues to invest in digital solutions and innovation, as well as, expanding its business activities. Data management is the risk of failing to manage information appropriately throughout its lifecycle due to

inadequate processes and controls, resulting in legal or regulatory consequences, reputational damage or financial loss. In addition to the management and governance of data, its collection, use, and sharing also remain a top risk given the high value attributed to the Issuer's data. Resulting implications from failing to manage this risk could include financial loss, theft of intellectual property and confidential information, litigation, enhanced regulatory attention and penalties, as well as reputational damage. Privacy risk is the risk of improper creation or collection, use, disclosure, retention or destruction of information. Effective privacy and information management practices continue to grow in importance, as demonstrated by the continued development of complex regulations in the jurisdictions in which the Issuer operates and recent regulatory developments relating to data privacy. The Chief Privacy Office and the Chief Data Office partner with cross-functional teams to develop and implement enterprise-wide standards and practices that describe how data is used, protected, managed and governed. The Issuer's potential exposure to these risks also increases as the Issuer continues to partner with third-party service providers and adopt new technologies (e.g., cloud computing, AI and machine learning, etc.) and business models. Third-party risk is the risk of failure to effectively manage third parties which may expose the Issuer to service disruptions, regulatory action, financial loss, litigation or reputational damage. Privacy, data and third-party related risks have been heightened as the use of work from home arrangements have become common practice. As the majority of the Issuer's employees continue to work from home, it is continuously monitoring and enforcing best practices as it seeks to maintain the privacy and confidentiality of all sensitive information. The Issuer's security awareness program is required to be completed by each employee annually and includes cyber awareness training on managing risks while working remotely. Third-party providers critical to its operations are being monitored for any impact on their ability to deliver services, including vendors of its third-party providers. Failure to properly onboard and manage service providers may expose the Issuer to service disruption, financial loss and other risks that may negatively impact its financial performance and condition.

Regulatory Changes: The ongoing introduction of new or revised regulations will continue to lead to increasing focus across the organization on meeting additional regulatory requirements across the multiple jurisdictions in which the Issuer operates. See "Business segment results" on pages 26 to 48 of the 2020 MD&A incorporated by reference in the Base Prospectus for information on the Issuer's business segments and the jurisdictions in which they operate. Financial and other reforms that have come into effect or are coming into effect, across multiple jurisdictions, such as Canadian anti-money laundering regulations, the interest rate benchmark reform, as well as data, privacy, consumer protection regulations, Canadian benchmark rate for qualifying insured mortgages and client focused reforms, continue to provide challenges and impact the Issuer's operations and strategies and may negatively impact its financial performance, condition and prospects.

Digital Disruption and Innovation: The COVID-19 pandemic has changed the way consumers interact with financial services providers. Demand for digital banking services has increased, and while this represents an opportunity for the Issuer to leverage its technological advantage, the need to meet the rapidly evolving needs of clients and compete with non-traditional competitors has increased the Issuer's strategic and reputational risks. Additional risks also continue to emerge as demographic trends, evolving client expectations, the increased power to analyze data and the emergence of disruptors are creating competitive pressures across a number of sectors. Moreover, established technology companies, newer competitors, and regulatory changes continue to foster new business models that could challenge traditional banks and financial products. Finally, while the adoption of new technologies, such as AI and machine learning, presents opportunities for the Issuer, it could result in new and complex strategic, reputational, operational, regulatory and compliance risks that would need to be managed effectively and, if not, may adversely impact its financial performance and condition.

KEY INFORMATION ON THE SECURITIES

What are the main features of the securities?

The Notes are Index Linked Redemption due 23 January 2024, with International Securities Identification Number (ISIN) XS2570627245. The currency of this Series of Notes is USD. The Notes have a minimum Specified Denomination of USD 1,000, with a minimum trading size of USD 1,000.

Transferability of the Notes: There are no restrictions on the free transferability of the Notes.

Status (Ranking): The Notes constitute direct, unconditional, unsubordinated and unsecured obligations of the Issuer and rank *pari passu* without any preference among themselves and at least *pari passu* with all other present and future unsubordinated and

unsecured obligations of the Issuer (including deposit liabilities), except as otherwise prescribed by law and subject to the exercise of bank resolution powers.

Taxation: All payments in respect of the Notes will be made free and clear of and without withholding or deduction for or on account of taxes, duties, assessments or governmental charges imposed by Canada, any province or territory or political subdivision thereof or any authority or agency therein or thereof having power to tax and the United Kingdom or any political subdivision thereof or any authority or agency therein or thereof having power to tax. In the event that any such withholding or deduction is made, the Issuer will, save in certain limited circumstances, be required to pay additional amounts to cover the amounts so withheld or deducted and the Issuer may redeem the Notes early in such circumstances.

Negative pledge: The terms of the Notes will not contain a negative pledge provision.

Events of default: The terms of the Notes provide for events of default which are limited to (a) non-payment of interest or principal, in each case for more than 30 business days from the relevant due date; and (b) certain bankruptcy or insolvency events occurring in respect of the Issuer.

Meetings: The terms of the Notes will contain provisions for calling meetings of holders of such Notes and passing written resolutions and obtaining electronic consents, in each case in relation to matters affecting their interests generally. These provisions permit defined majorities to bind all holders, including holders who did not attend and vote at the relevant meeting or by way of written resolution or electronically and holders who voted in a manner contrary to the majority.

Governing law: The laws of the Province of Ontario and the federal laws of Canada applicable therein.

Representative of holders: Not applicable, no representative of the Holders of the Notes has been appointed by the Issuer.

Interest: The Notes bear interest from their date of issue, payable on the Interest Payment Dates, at 10.90% per annum.

“Interest Payment Dates” means the 21 April 2023, 19 July 2023, 20 October 2023 and 23 January 2024, adjusted for payment purposes only in accordance with the Following Business Day Convention.

Maturity: Subject to any purchase and cancellation or early redemption, each Note will be redeemed on 23 January 2024 at the Final Redemption Amount set out below.

“Relevant Reference Performance” means the closing price of the Worst Performer

“Worst Performer” means the Reference Item in respect of which the following formula yields, in the determination of the Calculation Agent, the smallest positive number: closing price of the Reference Item on the Valuation Date / Initial Valuation. Provided that if the above formula yields the same number with respect to two or more Reference Items, then the Calculation Agent shall determine the Worst Performer

“Valuation Date” means 5 January 2024

“Initial Valuation” means 25,973.85 (Nikkei 225), 3,808.10 (S&P 500 INDEX) and 3,959.48 (EURO STOXX 50 Price EUR)

“Reference Item” means to Nikkei 225, S&P 500 INDEX and EURO STOXX 50 Price EUR

Final Redemption Amount: The Final Redemption Amount is:

- (a) if a Capital Barrier Event has occurred, an amount (which may never be less than zero) calculated by the Calculation Agent equal to: $\text{Min}(\text{USD } 1,000 \times (\text{the closing level of the Worst Performer on the Valuation Date} / \text{Initial Valuation}); 100\%);$ or
- (b) otherwise, par.

“Capital Barrier Event” means if the level of any Reference Item has been less than its corresponding Capital Barrier Level during the Barrier Observation Period.

“Barrier Observation Period” means at any time (continuous intraday observation) during the period from (and including) the Trade Date to (and including) the Valuation Dates

“Trade Date” means 5 January 2023

“Capital Barrier Level” means 60%

Trigger Early Redemption Event: If on any Observation Date except the first Observation Date the closing level of each Reference Item is equal to or greater than 100% the Notes will be redeemed early on the next occurring Interest Payment Date at par.

“Observation Date” means 5 July 2023, 5 October 2023 and 5 January 2024

Where will the securities be traded?

The Notes are not intended to be admitted to trading on any market.

What are the key risks that are specific to the securities?

Risks associated with the Notes include the following:

Modification and waivers: holders of the Notes are exposed to the risk that their rights in respect of the Notes are varied against their will, which may result in an investment in any Notes becoming less advantageous to a particular holder depending on individual circumstances.

Secondary market: an active secondary market in respect of the Notes may never be established or may be illiquid and this would adversely affect the value at which an investor could sell its Notes.

Exchange rate risk: if an investor holds Notes which are not denominated in the investor’s home currency, the investor will be exposed to movements in exchange rate adversely affecting the value of the holding of Notes. Also the imposition of exchange controls or certain other specified events in relation to the Notes could result in an investor not receiving payment on the Notes.

Credit ratings: Credit ratings assigned to the Issuer or the Notes might not reflect all the risks associated with an investment in the Notes.

The Notes do not benefit from a protection amount: on the maturity date the amount payable in respect of the Notes may be less than the initial investment amount and purchasers of the Notes are exposed to full loss of their investment due to the lack of protection amount.

Cap on return: the maximum possible return on the Notes will be limited to principal amount of the Notes and the return will not increase even if the Reference Item outperforms the stated maximum return.

Market disruptions: the Calculation Agent may determine that a market disruption event or other adjustment event has occurred which may have an adverse effect on the value of or payment received with respect to the Notes and/or may delay applicable payments or settlement.

Risks relating to Index Linked Notes: the value of the Reference Item on any day will reflect the value of its constituents on such day. Changes in the composition of the Reference Item and factors which either affect or may affect the value of the constituents, will affect the value of the Reference Item and therefore may adversely affect the return on an investment in the Index Linked Notes.

Additional disruption events: if any of Change in Law, Hedging Disruption or Increased Cost of Hedging occur, the Notes will be subject to adjustment or may be redeemed early. The amount due on such redemption may be substantially less than an investor’s investment and may in certain circumstances be zero.

**KEY INFORMATION ON THE OFFER OF NOTES
AND ADMISSION TO TRADING ON A REGULATED MARKET**

Are the Notes being offered to the public as part of a Non-Exempt Offer?

This issue of Notes is being offered in a Non-exempt Offer in Switzerland (the “**Non-exempt Offer Jurisdiction**”).

Consent: Subject to the conditions set out below, the Issuer consents to the use of the Base Prospectus in connection with a Non-exempt Offer of Notes by the Dealer/Managers, and Banque Lombard Odier & Cie SA.

*“We, Banque Lombard Odier & Cie SA, refer to the offer of USD 2,532,000 (the “**Securities**”) described in the Final Terms dated 19 January 2023 (the “**Final Terms**”) published by Royal Bank of Canada (the “**Issuer**”). In consideration of the Issuer offering to grant its consent to our use of the Base Prospectus (as defined in the Final Terms) in connection with the offer of the Securities in Switzerland during the Offer Period and subject to the other conditions to such consent, each as specified in the Base Prospectus, we hereby accept the offer by the Issuer in accordance with the Authorised Offeror Terms (as specified in the Base Prospectus) and confirm that we are using the Base Prospectus accordingly.”*

Offer period: The Issuer's consent referred to above is given for Non-exempt Offers of Notes during 5 January 2023 to 10 January 2023 (the “**Offer Period**”).

Conditions to consent: The conditions to the Issuer's consent (in addition to the conditions referred to above) are that such consent (a) is only valid during the Offer Period; and (b) only extends to the use of the Base Prospectus to make Non-exempt Offers of the relevant Tranche of Notes in the Non-exempt Offer Jurisdiction.

AN INVESTOR INTENDING TO PURCHASE OR PURCHASING ANY NOTES IN A NON-EXEMPT OFFER FROM AN AUTHORISED OFFEROR WILL DO SO, AND OFFERS AND SALES OF SUCH NOTES TO AN INVESTOR BY SUCH AUTHORISED OFFEROR WILL BE MADE, IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE OFFER IN PLACE BETWEEN SUCH AUTHORISED OFFEROR AND SUCH INVESTOR INCLUDING ARRANGEMENTS IN RELATION TO PRICE, ALLOCATIONS, EXPENSES AND SETTLEMENT. THE RELEVANT INFORMATION WILL BE PROVIDED BY THE AUTHORISED OFFEROR AT THE TIME OF SUCH OFFER.

Under which conditions and timetable can I invest in this security?

This issue of Notes is being offered in a Non-exempt Offer in the Non-exempt Offer Jurisdiction during the Offer Period. The issue price of the Notes is 100.00 per cent. of their principal amount

Why is this prospectus being produced?

The net proceeds from the issue of Notes will be added to the general funds of the Issuer and used by the Issuer and/or its affiliates for hedging the Notes. The estimated net proceeds are USD 2,532,000.

The Issue Price may include a fee or commission payable to a distributor or third party. Such fee or commission will be determined by reference to a number of factors including but not limited to the maturity date of the Notes, hedging costs and legal fees. Further details in respect of the fee or commission are available upon request.

Other than as mentioned above, so far as the Issuer is aware, no person involved in the offer of the Notes has an interest material to the offer.

PROHIBITION OF SALES TO EEA RETAIL INVESTORS – The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (“**EEA**”). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, “**MiFID II**”); or (ii) a customer within the meaning of Directive (EU) 2016/97, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (the “**Prospectus Regulation**”). Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the “**PRIIPs Regulation**”) for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

PROHIBITION OF SALES TO UK RETAIL INVESTORS – The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom (“**UK**”). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the EUWA; (ii) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA; or (iii) not a qualified investor as defined in Article 2 of the UK Prospectus Regulation. Consequently, no key information document required by Regulation (EU) No 1286/2014 as it forms part of domestic law by virtue of the EUWA (the “**UK PRIIPs Regulation**”) for offering or selling the Notes or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

PROHIBITION OF OFFER TO PRIVATE CLIENTS IN SWITZERLAND - Other than with respect to offers of the Notes during the period 05 January 2023 to 10 January 2023 for which a key information document according to the Swiss Federal Financial Services Act (“**FinSA**”) or an equivalent document under FinSA has been prepared and its implementing ordinance, for which a simplified prospectus pursuant to Article 5(2) of the Swiss Federal Act on Collective Investment Schemes, as such article was in effect immediately prior to the entry into effect of FinSA, has been prepared, the Notes are not intended to be offered or recommended to private clients within the meaning of the Swiss Federal Financial Services Act (“**FinSA**”) in Switzerland. For these purposes, a private client means a person who is not one (or more) of the following: (i) a professional client as defined in Article 4(3) FinSA (not having opted-in on the basis of Article 5(5) FinSA) or Article 5(1) FinSA; or (ii) an institutional client as defined in Article 4(4) FinSA; or (iii) a private client with an asset management agreement according to Article 58(2) FinSA.

The Notes do not constitute a participation in a collective investment scheme in the meaning of [the Swiss Federal Act on Collective Investment Schemes (“**CISA**”)/CISA] and are not subject to the supervision by the Swiss Financial Market Supervisory Authority FINMA, and investors will not benefit from the specific investor protection under the CISA.



ROYAL BANK OF CANADA
(a Canadian chartered bank)

Legal entity identifier (LEI): ES7IP3U3RHIGC71XBU11

Issue of USD 2,532,000 Quanto USD 10.90% p.a. Barrier Reverse Convertible Quarterly Autocallable Notes linked to Nikkei 225, S&P 500 INDEX and EURO STOXX 50 Price EUR due 23 January 2024 under the Programme for the Issuance of Securities

Any person making or intending to make an offer of the Notes may only do so in circumstances in which no obligation arises for the Issuer or any Dealer to publish a prospectus pursuant to either of Article 3 of the Prospectus Regulation or section 85 of the FSMA or to supplement a prospectus pursuant to either of Article 23 of the Prospectus Regulation or Article 23 of the UK Prospectus Regulation, in each case, in relation to such offer, and subject as provided in the sections entitled "Prohibition of Sales to EEA Retail Investors" and "Prohibition of Sales to UK Retail Investors" above.

Neither the Issuer nor any Dealer has authorised, nor do they authorise, the making of any offer of Notes in any other circumstances.

PART A– CONTRACTUAL TERMS

Terms used herein shall be deemed to be defined as such for the purposes of the Conditions (the "Conditions") set forth in the Structured Securities Base Prospectus dated July 29, 2022 and the supplemental Prospectuses dated August 31, 2022, December 06, 2022, and December 20, 2022 which together constitute a base prospectus for the purposes of the Prospectus Regulation (the "**Base Prospectus**"). These Final Terms will be deposited with SIX Exchange Regulation Ltd. as review body (Prüfstelle) in Switzerland and published according to Article 64 of the Swiss Federal Financial Services Act ("FinSA")/FinSA for the purposes of an offer of the Notes to the public in Switzerland on the basis of the combination of these Final Terms and the Base Prospectus which has been included as a foreign prospectus that is deemed approved according to Article 54(2) FinSA in the list of approved prospectuses according to Article 64(5) FinSA by SIX Exchange Regulation Ltd., deposited with this review body and published according to Article 64 FinSA. These Final Terms must be read in conjunction with the Base Prospectus in order to obtain all the relevant information. A summary of the Notes is annexed to these Final Terms. The Base Prospectus has been published on the website of Euronext Dublin (www.euronext.com/en/markets/dublin) and the Issuer (www.rbc.com) and copies may be obtained from the offices of the Issuer, Royal Bank Plaza, 200 Bay Street, 8th Floor, South Tower, Toronto, Ontario, Canada and the offices of the Issuing and Paying Agent, 160 Queen Victoria Street, London EC4V 4LA, England.

For the purposes hereof:

“UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA;

“EUWA” means the European Union (Withdrawal) Act 2018; and

“FSMA” means the Financial Services and Markets Act 2000.

By investing in the Notes, each investor represents that:

(a) **Non-Reliance.** It is acting for its own account, and it has made its own independent decisions to invest in the Notes and as to whether the investment in the Notes is appropriate or proper for it based upon its own judgement and upon advice from such advisers as it has deemed necessary. It is not relying on any communication (written or oral) of the Issuer or any Dealer as investment advice or as a recommendation to invest in the Notes, it being understood that information and explanations related to the terms and conditions of the Notes shall not be considered to be investment advice or a recommendation to invest in the Notes. No communication (written or oral) received from the Issuer or any Dealer shall be deemed to be an assurance or guarantee as to the expected results of the investment in the Notes.

(b) **Assessment and Understanding.** It is capable of assessing the merits of and understanding (on its own behalf or through independent professional advice), and understands and accepts the terms and conditions and the risks of the investment in the Notes. It is also capable of assuming, and assumes, the risks of the investment in the Notes.

(c) **Status of Parties.** Neither the Issuer nor any Dealer is acting as fiduciary for or adviser to it in respect of the investment in the Notes.

1.	Issuer:	Royal Bank of Canada
	Branch of Account / Branch:	Toronto Branch
2.	(i) Series Number:	67497
	(ii) Tranche Number:	1
3.	Specified Currency or Currencies: (Condition 1.12)	USD
4.	Aggregate Principal Amount:	USD 2,532,000
	(i) Series:	USD 2,532,000
	(ii) Tranche:	USD 2,532,000
5.	Issue Price:	100.00 per cent of the Aggregate Principal Amount
6.	(a) Specified Denominations:	USD 1,000
	(b) Calculation Amount:	USD 1,000
	(c) Minimum Trading Size:	Applicable: USD 1,000
7.	(i) Issue Date:	19 January 2023
	(ii) Interest Commencement Date:	Issue Date

(iii) Trade Date:	05 January 2023
8. Maturity Date:	23 January 2024
9. Interest Basis:	10.90 per cent p.a. Fixed Rate
10. (a) Redemption Basis:	Subject to any purchase and cancellation or early redemption, the Notes will be redeemed on the Maturity Date at their Final Redemption Amount specified in item 26 below
	Non-Exempt Reference Item Linked Redemption Notes
	Index Linked Redemption
(b) Protection Amount:	Not Applicable
11. Change of Interest Basis:	Not Applicable
12. Put Option/ Call Option/ Trigger Early Redemption:	Trigger Early Redemption (further particulars specified below)
13. Date Board approval for issuance of Notes obtained:	Not Applicable
14. Bail-inable Securities:	No
15. Method of distribution:	Non-syndicated

PROVISIONS RELATING TO INTEREST (IF ANY) PAYABLE

16. Fixed Rate Note Provisions (Condition 4.02/4.02a)	Applicable
(i) Rate(s) of Interest:	10.90 per cent. per annum payable in arrear on each Interest Payment Date
(ii) Interest Payment Date(s) [Interest Ex-Date]:	21 April 2023 19 July 2023 20 October 2023 23 January 2024 Adjusted for payment purposes only in accordance with the Business Day Convention.
(iii) Adjusted Interest Periods:	Not Applicable
(iv) Business Day Convention:	Following Business Day Convention
(v) Fixed Coupon Amount(s):	USD 27.25 per Calculation Amount
(vi) Broken Amount(s):	Not Applicable
(vii) Day Count Fraction:	30/360

	(viii)	Determination Dates:	Not Applicable
	(ix)	Default Rate:	As set out in Condition 4.06
17.		Floating Rate Note Provisions (Condition 4.03)	Not Applicable
18.		Zero Coupon Note Provisions	Not Applicable
19.		Reference Item Linked Interest Notes	Not Applicable
PROVISIONS RELATING TO REDEMPTION			
20.		Call Option (Condition 5.03)	Not Applicable
21.		Put Option (Condition 5.06)	Not Applicable
22.		Notice periods for Early Redemption for Taxation Reasons:	
	(i)	Minimum period:	30 days
	(ii)	Maximum period:	60 days
23.		TLAC Disqualification Events:	Applicable
24.		Notice periods for Redemption for Illegality:	
	(i)	Minimum period:	10 days
	(ii)	Maximum period:	30 days
25.		Trigger Early Redemption (Condition 5.09 and Condition 31.02)	Applicable
	(i)	Trigger Early Redemption Event:	Trigger Early Redemption Event 1
	(ii)	Trigger Barrier Level:	100%
	(iii)	Lower Trigger Barrier:	Applicable
	(A)	Equal to or Greater than:	Applicable
	(B)	Greater than:	Not Applicable
	(iv)	Upper Trigger Barrier:	Not Applicable
	(v)	Monitoring Date(s):	Each Observation Date
	(vi)	Relevant Monitoring Date(s):	Each Monitoring Date

(vii)	Initial Monitoring Date(s):	Not Applicable
(viii)	Relevant Initial Monitoring Date(s):	Not Applicable
(ix)	Initial Valuation:	Index 1: 25,973.85 Index 2: 3,808.10 Index 3: 3,959.48
(x)	Relevant Valuation:	Relevant Valuation 1
(xi)	Relevant Reference Performance:	Worst-of Basket Relevant Reference Performance
(xii)	Reference Interest Rate:	Not Applicable
(xiii)	Reference Interest Rate Business Day:	Not Applicable
(xiv)	Floor:	Not Applicable
(xv)	First Number of Hours:	Not Applicable
(xvi)	Second Number of Hours;	Not Applicable
(xvii)	Trigger Event Period:	Not Applicable
(xviii)	Trigger FX Currency:	Not Applicable
(xix)	Trigger FX Price Source:	Not Applicable
(xx)	Trigger FX Valuation Time:	Not Applicable
(xxi)	Trigger Early Redemption Date(s):	19 July 2023 20 October 2023 23 January 2024
(xxii)	(a) Trigger Early Redemption Amount:	100.00% per Calculation Amount
	(b) Trigger Early Redemption Amount includes amount in respect of Accrued Interest:	Yes: no additional amount in respect of accrued interest to be paid
26.	Final Redemption Amount	See Condition 31.01, as completed by the relevant sections of item 29 below
27.	Early Redemption Amount	

- | | | |
|------|--|---|
| (i) | <p>Early Redemption Amount(s) payable on redemption for taxation reasons, illegality or on event of default or other early redemption (including, in the case of Index Linked Notes, following an Index Adjustment Event in accordance with Condition 7, or in the case of Equity Linked Notes, following a Potential Adjustment Event and/or De-listing and/or Merger Event and/or Nationalisation and/or Insolvency and/or Tender Offer in accordance with Condition 8, or in the case of Equity Linked Notes, Index Linked Notes or Fund Linked Notes (involving ETFs), following an Additional Disruption Event (if applicable) (if required):</p> | As per Condition 5.10 |
| (ii) | <p>Early Redemption Amount includes amount in respect of accrued interest:</p> | Yes: no additional amount in respect of accrued interest to be paid |

PROVISIONS RELATING TO REFERENCE ITEM LINKED NOTES

28. Settlement Method

Whether redemption of the Notes will be by (a) Cash Settlement or (b) Physical Delivery or (c) Cash Settlement and/or Physical Delivery:	Cash Settlement
--	-----------------

29. Additional Payouts Condition Terms – Final Redemption Amount and/or Physical Settlement Event

See this item 29. and Condition 31.01 (and related terms of Condition 33)

- | | | |
|-----|-------------------------------|--|
| (i) | <p>Capital Barrier Event:</p> | <p>Applicable</p> <p>Capital Barrier Event 3</p> <p>If a Capital Barrier Event has occurred:</p> |
|-----|-------------------------------|--|

Final Redemption Amount 1

If a Capital Barrier Event has not occurred:

Final Redemption Amount 7

Final - Initial Level: Applicable

- | | | |
|--------|---|---|
| (ii) | Put Strike Event: | Not Applicable |
| (iii) | Mini-Future Short
Redemption Notes: | Not Applicable |
| (iv) | IndiCap Redemption Notes: | Not Applicable |
| (v) | Himalayan Redemption
Notes: | Not Applicable |
| (vi) | Monitoring Date(s): | Not Applicable |
| (vii) | Relevant Monitoring
Date(s): | For the purpose of determining the Final
Redemption Amount: the Valuation Date

For the purpose of determining if the Capital Barrier
Event has occurred: at any time (continuous intraday
observation) during the period from (and including)
the Trade Date to (and including) the Valuation Date |
| (viii) | Initial Monitoring Date(s): | Not Applicable |
| (ix) | Relevant Initial Monitoring
Date(s): | Not Applicable |
| (x) | Capital Barrier Level: | 60% |
| | (1) Equal to or Less than: | Not Applicable |
| | (2) Less than: | Applicable |
| (xi) | Put Strike Level: | Not Applicable |
| (xii) | Initial Valuation: | Index 1: 25,973.85

Index 2: 3,808.10

Index 3: 3,959.48 |
| (xiii) | Relevant Valuation: | Relevant Valuation 1 |
| (xiv) | Relevant Reference
Performance: | Worst-of Basket Relevant Reference Performance |
| (xv) | Floor: | Not Applicable |

(xvi)	F:	Not Applicable
(xvii)	K:	Not Applicable
(xviii)	LC:	Not Applicable
(xix)	LF:	Not Applicable
(xx)	Cap:	100%
(xxi)	P%:	Not Applicable
(xxii)	X%:	Not Applicable
(xxiii)	Y%:	Not Applicable
(xxiv)	Z%:	100.00%
(xxv)	X1%:	Not Applicable
(xxvi)	X2%:	Not Applicable
(xxvii)	K1%:	Not Applicable
(xxviii)	K2%:	Not Applicable
(xxix)	Physical Settlement Level	Not Applicable
(xxx)	Preference Share Linked Notes:	Not Applicable
30.	Multi-Reference Item Linked Notes	Not Applicable
31.	Currency Linked Note Provisions	Not Applicable
32.	Commodity Linked Note Provisions	Not Applicable
33.	Index Linked Note Provisions (Equity Indices only)	Applicable
(i)	Whether the Notes relate to a Basket of Indices or a single Index and the identity of the relevant Index/Indices and details of the relevant Index Sponsor(s) and whether such Index / Indices is a Multi-Exchange Index:	<p>Basket of Indices</p> <p>Index 1: Nikkei 225 (Bloomberg: NKY),</p> <p>Index 2: S&P 500 INDEX (Bloomberg: SPX)</p> <p>Index 3: EURO STOXX 50 Price EUR (Bloomberg: SX5E)</p> <p>Index Sponsor(s) 1: Nikkei Inc. and Nikkei Digital Media Inc.</p> <p>Index Sponsor(s) 2: Standard & Poor's</p>

	Index Sponsor(s) 3: STOXX Limited
	Multi-Exchange Index: Yes
(ii) Averaging Date(s):	Not Applicable
(iii) Observation Period(s):	Not Applicable
(iv) Observation Date(s):	5 July 2023 5 October 2023 5 January 2024
(v) Valuation Date(s):	5 January 2024
(vi) Valuation Time:	Condition 7.03 applies
(vii) Specified Level:	Closing Level
(viii) Additional Disruption Events:	Applicable Change in Law Hedging Disruption Increased Cost of Hedging
(ix) Index Substitution:	Not Applicable
(x) Exchange(s):	In relation to each component security included in the Index (each a "Component Security"), the principal stock exchange on which such Component Security is principally traded, as determined by the Calculation Agent
(xi) Related Exchange(s):	All Exchanges
(xii) Initial Level:	Index 1: 25,973.85 Index 2: 3,808.10 Index 3: 3,959.48
(xiii) Hedging Entity:	Not Applicable
(xiv) Weighting or w:	Not Applicable
(xv) Common Disrupted Days:	Not Applicable
34. Equity Linked Note Provisions	Not Applicable
35. Fund Linked Note Provisions (ETF)	Not Applicable
36. Bond Linked Redemption Note Provisions	Not Applicable

37. **Actively Managed Basket Linked Note Provisions** Not Applicable

38. **Physical Delivery** Not Applicable

GENERAL PROVISIONS APPLICABLE TO THE NOTES

39. (i) New Global Note: No

(ii) Form of Notes: Registered Notes

40. Financial Centre(s) or other special provisions relating to payment dates: London and New York

41. Relevant Renminbi Settlement Centre Not Applicable

42. Talons for future Coupons to be attached to Definitive Notes (and dates on which such Talons mature): (Condition 1.06) No

43. Name and address of Calculation Agent: Royal Bank of Canada, London Branch
100 Bishopsgate
London EC2N 4AA

44. Name and address of RMB Rate Calculation Agent: Not Applicable

45. Issuer access to the register of creditors (Sw. *skuldboken*) in respect of Swedish Notes: Not Applicable

46. Exchange Date: Not Applicable

47. The Aggregate Principal Amount of the Notes issued has been translated into U.S. dollars at the rate of U.S.\$1.00 = [], producing a sum of: Not Applicable

48. Governing law of Notes (if other than the laws of the Province of Ontario and the federal laws of Canada applicable therein): Not Applicable

49. Alternative Payment Currency: Not Applicable

50. *Masse*: Not Applicable

RESPONSIBILITY

The Issuer accepts responsibility for the information contained in this Pricing Supplement.

Signed on behalf of the Issuer:



By: Nicole Blackwood
Vice President, Transaction Management Group.....

Duly authorised



By: Guillaume Horent
Global Head of Structured Rates Trading.....

Duly authorised

PART B – OTHER INFORMATION

1. LISTING AND ADMISSION TO TRADING

Listing/Admission to trading: Not Applicable

2. RATINGS

Ratings: Not Applicable

3. INTERESTS OF NATURAL AND LEGAL PERSONS INVOLVED IN THE ISSUE

Save as discussed in "Subscription and Sale", so far as the Issuer is aware, no person involved in the offer of the Notes has an interest material to the offer.

4. REASONS FOR THE OFFER

See "Use of Proceeds" in the Base Prospectus

5. DETAILS OF PERFORMANCE OF EURIBOR RATES CAN BE OBTAINED, BUT NOT FREE OF CHARGE, FROM REUTERS.

6. OPERATIONAL INFORMATION

- (i) ISIN: XS2570627245
- (ii) Common Code: 257062724
- (iii) CFI: See the website of the Association of National Numbering Agencies (ANNA) or alternatively sourced from the responsible National Numbering Agency that assigned the ISIN
- (iv) FISN: See the website of the Association of National Numbering Agencies (ANNA) or alternatively sourced from the responsible National Numbering Agency that assigned the ISIN
- (v) Other Identification Number: Not Applicable
- (vi) Any clearing system(s) other than Euroclear and Clearstream, Luxembourg, their addresses and the relevant identification number(s): Not Applicable
- (vii) Delivery: Delivery against payment
- (viii) Name(s) and address(es) of Initial Paying Agents, French Paying Agent, Registrar and Transfer Agents: The Bank of New York Mellon, London Branch
160 Queen Victoria Street

London EC4V 4LA

Registrar:

The Bank of New York Mellon SA/NV,
Luxembourg Branch

Vertigo Building – Polaris

2 – 4 rue Eugène Ruppert
L-2453 Luxembourg

(ix) Names and addresses of additional Paying Agent(s), Registrar and Transfer Agents (if any):

Not Applicable

(x) Intended to be held in a manner which would allow Eurosystem eligibility:

No

Whilst the designation is specified as "no" at the date of these Final Terms, should the Eurosystem eligibility criteria be amended in the future such that the Notes are capable of meeting them the Notes may then be deposited with one of the ICSDs as common safe-keeper. Note that this does not necessarily mean that the Notes will then be recognised as eligible collateral for Eurosystem monetary policy and intra day credit operations by the Eurosystem at any time during their life. Such recognition will depend upon the ECB being satisfied that Eurosystem eligibility criteria have been met.

7. DISTRIBUTION

(i) If syndicated, names of Managers:

Not Applicable

(ii) If non-syndicated, name of Dealer:

RBC Europe Limited
100 Bishopsgate
London EC2N 4AA

(iii) U.S. Selling Restrictions:

Super Reg S; TEFRA rules not applicable

(iv) Canadian Sales:

Canadian Sales Not Permitted

(v) Non-exempt Offer:

Not Applicable

(vi) Swiss Non-Exempt Offer:

Applicable

Swiss Offer Period:

5 January 2023 to 10 January 2023

Financial intermediaries granted specific consent to use the Base Prospectus in accordance with the

Banque Lombard Odier & Cie SA

Conditions in it for Swiss Non-Exempt Offers:

	General Consent:	Not Applicable
	Other Authorised Offeror Terms:	Not Applicable
(vii)	Prohibition of Sales to EEA Retail Investors:	Applicable
(viii)	Prohibition of Sales to UK Retail Investors:	Applicable
(ix)	Prohibition of Offer to Private Clients in Switzerland:	Other than with respect to offers of the Notes during the period 5 January 2023 – 10 January 2023 for which a key information document has been prepared.

8. TERMS AND CONDITIONS OF THE OFFER

Offer Price:	Issue Price
Conditions to which the offer is subject:	Not Applicable
Description of possibility to reduce subscriptions and manner for refunding amount paid in excess by applicants:	Not Applicable
Details of the minimum and/or maximum amount of the application:	Not Applicable
Details of the method and time limits for paying up and delivering the Notes:	Not Applicable
Manner and date in which results of the offer are to be made public:	Not Applicable
Procedure for exercise of any right of preemption, negotiability of subscription rights and treatment of subscription rights not exercised:	Not Applicable
Whether tranche(s) have been reserved for certain countries:	Not Applicable
Process for notifying applicants of the amount allotted and an indication whether dealing may begin before notification is made:	Not Applicable
Amount of any expenses and taxes charged to the subscriber or purchaser:	Not Applicable
Name(s) and address(es), to the extent known to the Issuer, of the placers in the various countries where the offer takes place:	The Authorised Offerors identified in paragraph 7 above and identifiable from the Base Prospectus

9. HIRE ACT WITHHOLDING

The notes are not specified securities for purposes of section 871(m) of the U.S. internal revenue code of 1986.

10. EU BENCHMARKS REGULATION

Not Applicable



Public Offer: Switzerland - FINAL TERMSHEET as of 05/01/2023

Quanto USD 10.90% p.a. Barrier Reverse Convertible Quarterly Autocallable Notes linked to Nikkei 225, S&P 500 INDEX and EURO STOXX 50 Price EUR due 23 January 2024

A structured product is not a collective investment scheme as per the Swiss Federal Act on Collective Investment Schemes ("CISA") and is not subject to the authorization or supervision by the Swiss Financial Market Supervisory Authority (FINMA). Therefore, investors in this product are not eligible for the specific investor protection under the Swiss Collective Investment Schemes Act. Investors are exposed to the credit risk of the issuer

This document is provided for discussion and/or information purposes only and it does not constitute either an offer or the solicitation of an offer to enter into a securities or any other transaction. It is not intended to set forth a final expression of the terms and conditions of any transaction and it may be amended, superseded or replaced in its entirety by subsequent documents or other summaries of terms and conditions. This document does not purport to identify or suggest all of the risks (direct or indirect) which may be associated with the proposed investment.

This document must be read in conjunction with the Prospectus (as supplemented or updated) for the Royal Bank of Canada Programme for the Issuance of Securities, current as of the issue date of the Notes (the "Base Prospectus"). The Base Prospectus can be obtained from <https://www.rbc.com/investor-relations/european-senior-notes-program.html> or such other successor display page that has been designated by the Issuer or provided by Royal Bank of Canada upon request. Terms used but not defined herein are as defined in the Base Prospectus and in particular the Terms and Conditions of the Notes (the "Conditions") set out therein.

Information with regard to the Offering of the Notes in Switzerland

This document is not, and under no circumstances is to be construed as an advertisement under article 68 of the Swiss Federal Financial Services Act ("FinSA") except where this document is used for the purposes of marketing. In such latter case, the FinSA prospectus and the key information document, where these exist, can be downloaded from the Website.

These Notes may be, subject to the applicable selling restrictions outlined below, publicly offered to investors in Switzerland but can only be offered on a Private Placement basis in any Member State of the European Economic Area as per below or elsewhere.

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

I. PRODUCT DESCRIPTION

Overview

Quanto USD 10.90% p.a. Barrier Reverse Convertible Quarterly Autocallable Notes linked to Nikkei 225, S&P 500 INDEX and EURO STOXX 50 Price EUR due 23 January 2024 offer investors a periodic opportunity to receive an Interest Amount. The securities will be early redeemed if the Reference Level of each Reference Item on any Mandatory Early Redemption Observation Date is equal to or greater than its corresponding Autocall Trigger Level. If the securities are not early redeemed, at maturity, the investor will receive: (1) a cash payment equal to 100% of the Calculation Amount, if no Barrier Event has occurred; or (2) a cash payment equal to 100% of the Calculation Amount, if a Barrier Event has occurred and the Final Level of the Least Performer is equal to or greater than its corresponding Put Strike Level; or (3) a cash payment in an amount that will be worth less, and could be worth substantially less, than the Calculation Amount, if a Barrier Event has occurred and the Final Level of the Least Performer is less than its corresponding Put Strike Level. A Barrier Event will be deemed to have occurred if the level of any Reference Item has been less than its corresponding Put Barrier Level at any time (continuous intraday observation) during the period from (and including) the Initial Valuation Date to (and including) the Final Valuation Date. **The securities are not principal protected.**

Market Expectations

The Reference Item will rise slightly

Market volatility is high and/or expected to fall

None of the Reference Items will trade below its corresponding Put Barrier Level at any point during the life of the Securities

SSPA Classification/Product Type

Barrier Reverse Convertible (1230; Auto-Callable)

PRODUCT DETAILS

Issuer	Royal Bank of Canada (Toronto Branch) Main Toronto Branch located at 200 Bay Street, Toronto, Ontario, Canada
Rating	Aa1 (Stable outlook) by Moody's and AA- (Stable outlook) by Standard and Poor's

Prudential Supervision of the Issuer	RBC is a schedule 1 bank under the Canadian Bank Act, subject to supervision by the Office of the Superintendent for Financial Institutions of Canada and by the Prudential Regulation Authority, United Kingdom
Currency	USD
Issue Size	USD 2,532,000
Specified Denomination	USD 1,000
Calculation Amount	USD 1,000
Minimum Trading Size	USD 1,000
Settlement Method	Cash Settlement*
ISIN	XS2570627245
RBC Code	E7401-ICRC-05JAN24
Valoren	123635229
Issue Price	100.00% of the Calculation Amount
Listing	None
Financial intermediaries granted specific consent to use the Base Prospectus in accordance with the Conditions in it:	Banque Lombard Odier & Cie SA

* Please refer to the section "Redemption at Maturity"

REFERENCE ITEMS						
Reference Item	Identifier	Index Sponsor	Initial Level	Autocall Trigger Level (Initial Level x 100.00%)	Put Strike Level (Initial Level x 100.00%)	Put Barrier Level (Initial Level x 60.00%)
Nikkei 225	Bloomberg: NKY Index ISIN: XC0009692440	Nikkei Inc. and Nikkei Digital Media Inc.	25,973.85	25,973.85	25,973.85	15,584.31
S&P 500 INDEX	Bloomberg: SPX Index ISIN: US78378X1072	Standard & Poor's	3,808.10	3,808.10	3,808.10	2,284.86
EURO STOXX 50 Price EUR	Bloomberg: SX5E Index ISIN: EU0009658145	STOXX Limited	3,959.48	3,959.48	3,959.48	2,375.688

DATES					
Swiss Offer Period	From 5 January 2023 to 10 January 2023				
Trade Date	5 January 2023				
Initial Valuation Date	NKY Index: 6 January 2023 SPX Index: 5 January 2023 SX5E Index: 5 January 2023				
Issue Date	19 January 2023				
Final Valuation Date	5 January 2024				
Maturity Date	23 January 2024				
Observation Dates and Payment Dates	<table border="1"> <thead> <tr> <th>Mandatory Early Redemption Observation Dates</th> <th>Payment Dates</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>21 April 2023</td> </tr> </tbody> </table>	Mandatory Early Redemption Observation Dates	Payment Dates	N/A	21 April 2023
Mandatory Early Redemption Observation Dates	Payment Dates				
N/A	21 April 2023				

5 July 2023	19 July 2023
5 October 2023	20 October 2023
5 January 2024	23 January 2024

INTEREST INFORMATION

Fixed Interest Rate	10.90% p.a. , payable on each Payment Date (Interest rate component: 4.8854% p.a., option premium component: 6.0146% p.a. for Swiss taxation purposes) For avoidance of doubt, if the Securities are mandatorily redeemed, the investor will receive 100.00% of the Calculation Amount
Interest Amount	USD 27.25 per Calculation Amount

MANDATORY EARLY REDEMPTION INFORMATION

Mandatory Early Redemption Event	If, on any Mandatory Early Redemption Observation Date, the Reference Level of each Reference Item is equal to or greater than its corresponding Autocall Trigger Level, then a Mandatory Early Redemption Event shall be deemed to have occurred and the Securities shall be redeemed on the relevant Payment Date by payment of the Mandatory Early Redemption Amount.
Mandatory Early Redemption Amount	100% of the Calculation Amount

REDEMPTION AT MATURITY

Barrier Type	American, Continuous Intraday monitoring
Barrier Event	A Barrier Event occurs if the level of any Reference Item has been less than its corresponding Put Barrier Level during the Barrier Observation Period.
Barrier Observation Period	At any time (continuous intraday observation) during the period from (and including) the Initial Valuation Date to (and including) the Final Valuation Date
Settlement Method	The Settlement will be Cash Settlement and the Securities shall be redeemed by payment of the Final Redemption Amount .
Final Redemption Amount	The Final Redemption Amount shall be determined in accordance with the following provisions: <ul style="list-style-type: none"> (a) If no Barrier Event has occurred, then the Final Redemption Amount shall be: Calculation Amount × 100.00% (b) Otherwise, if a Barrier Event has occurred and the Final Level of each Reference Item is equal to or greater than its corresponding Put Strike Level, the Final Redemption Amount shall be: Calculation Amount × 100.00% (c) Otherwise, if a Barrier Event has occurred and if the Final Level of any Reference Item is less than its corresponding Put Strike Level, then the Final Redemption Amount shall be calculated in accordance with the following formula: Calculation Amount × (Final Level of the Least Performer / Put Strike Level of the Least Performer)
Initial Level	In respect of each Reference Item, its level as set out in the table above.
Final Level	In respect of each Reference Item, its respective Reference Level on the Final Valuation Date.

Least Performer	The Reference Item in respect of which the following formula yields, in the determination of the Calculation Agent, the smallest positive number: Final Level / Initial Level provided that if the above formula yields the same number with respect to two or more Reference Items, then the Calculation Agent shall determine the Least Performer.
Reference Level	The official closing level of a Reference Item quoted on the Relevant Exchange or, as the case may be, as calculated and published by the respective Index Sponsor, as determined by or on behalf of the Calculation Agent (or if, in the opinion of the Calculation Agent, no such official closing level can be determined at such time and the relevant day is not a Disrupted Day, the Calculation Agent's good faith estimate of the level of such Reference Item as of the actual closing time of the Exchange on the relevant date), or as otherwise determined by the Calculation Agent pursuant to the Conditions.

GENERAL INFORMATION	
Calculation Agent	Royal Bank of Canada, London Branch
Paying Agent	The Bank of New York Mellon, London Branch, 160 Queen Victoria Street, London, EC4V 4LA, United Kingdom
Secondary Market	Under normal market conditions, the Dealer intends to maintain a secondary market throughout the lifetime of the Securities with an indicative market making spread of 0.50%. However, the Dealer is not obliged to do so and may stop providing liquidity at the secondary market at any time without notice. For further information please refer to the section "Liquidity Risk" below.
Business Days	For payment: London and New York For Determination of the Reference Item(s): Scheduled Trading Days
Business Day Convention	Following
Form of Notes	Global Registered Notes
Registrar	The Bank of New York Mellon SA/NV, Luxembourg Branch
Settlement	Euroclear or Clearstream on a delivery against payment basis
Status	Direct, unsecured and unsubordinated obligations of the Issuer
Documentation	Under the existing Programme for the Issuance of Securities
Dealer (non-syndicated)	RBC Europe Limited
Prohibition of Sales to EEA Retail Investors	Applicable
Prohibition of Sales to UK Retail Investors	Applicable
Prohibition of Offer to Private Clients in Switzerland	Other than with respect to offers of the Notes during the Swiss Offer Period for which a key information document has been prepared.
Structuring Fee	The Issuer may pay a fee of up to 1.00% of the Issue Price p.a. (the "Structuring Fee"). The investor acknowledges and agrees that such Structuring Fee will not be passed on to the investor. Further information is available from Banque Lombard Odier & Cie SA upon investor's written request
Pricing	This Security is quoted dirty in the secondary market.
Website	https://www.rbc.com/investor-relations/european-senior-notes-program.html#swiss-notes-transactions-content
TEFRA Rules	TEFRA rules not applicable

Availability of Documentation	Investors may obtain copies of the Base Prospectus, the Base Prospectus Supplements and the Final Terms free of charge on request from offices of the Distributors or the Issuer's registered office.
Governing Law	Province of Ontario and the laws of Canada applicable therein
Jurisdiction	Courts of Ontario and Canada

SWISS TAX INFORMATION

Swiss Tax Treatment of the Securities

The following is a summary only of the Issuer's understanding of current law and practice in Switzerland relating to the taxation of the Notes. This summary does not address the tax consequences of an investment in the Notes in any other jurisdiction than Switzerland. Because this summary does not address all tax considerations under Swiss law and does not consider the specific tax situation of an investor, prospective investors are recommended to consult its personal tax advisors as to the tax consequences of the purchase, ownership, sale or redemption of the Notes including, in particular, the effect of tax laws of any other jurisdiction.

An investor shall be liable for all current and future taxes and duties resulting from an investment in the Notes.

A) Swiss Income Taxation

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

The Interest rate component of the Interest Amount is subject to income tax on the relevant Payment Date. However, the Option premium component is in principle not subject to income tax.

B) Swiss Withholding Tax

The Notes are not subject to Swiss withholding tax.

C) Swiss Stamp Taxes

For Swiss stamp duty purpose, the Notes are treated as analogous to a foreign bond. Therefore, the issuance (primary market) is not subject to Swiss stamp duty. However, secondary market transactions are in principle subject to Swiss stamp duty (TK 22).

The before mentioned tax treatment applies at the Issue Date. The relevant tax laws and/or the regulation and practice of the tax authorities may change at any time. Please note that this tax information does not replace professional tax advice from a personal tax advisor considering the particular circumstances of a holder or a prospective holder. Therefore, Royal Bank of Canada highly recommends consulting the personal tax advisor as to the tax consequences of the purchase, ownership, sale or exercise of these Notes. Royal Bank of Canada hereby expressly excludes any liabilities in respect of any tax implications arising thereof.

Automatic Exchange of Information in Tax Matters

Switzerland has implemented the Automatic Exchange of Information in Tax Matters ("AEOI") as of 1st January 2017 with the EU and various other countries and is negotiating the introduction of the AEOI with further countries. The website "www.sif.admin.ch" provides an overview of all partner states Switzerland has signed an agreement for the introduction of the AEOI.

II. PROFIT AND LOSS

PROFIT AND LOSS

This security falls in the category “yield enhancement”.

This means that there is an upper limit to the profit investors may realize. The maximum amount investors may receive over the term of the security is their invested capital, excluding any transaction or other costs, *plus* interest payments. On the downside, in the event of a barrier breach, investors are exposed to the negative development of the Reference Items. This could lead to a partial or even a total loss of investment.

Please refer to the section “Product Description”.

Effect of the performance of the Reference Items on the redemption amount:

Positive performance:

If the Reference Items performs positively, the investor realises no return.

Sideways to slightly negative performance:

If the Reference Items performs sideways to slightly negative, the investor realises no return or a slightly negative return.

Pronounced negative performance:

If the Reference Items performs negatively, the investor realises negative return.

III. SIGNIFICANT RISKS FOR INVESTORS

RISKS

Product Risk	These Securities are capital at risk. This means there is a risk that you could lose your entire investment or part of it. These Securities are not guaranteed against losses by the Issuer, Dealer, their affiliates, the UK Financial Services Compensation Scheme or any equivalent European deposit guarantee scheme.
U.S. Withholding Tax on Dividend Equivalent Payments	The United States Internal Revenue Code of 1986, as amended, treats a “dividend equivalent” payment as a dividend from sources within the United States. Unless reduced by an applicable tax treaty with the United States, such payments generally would be subject to U.S. withholding tax of 30% if paid to a non-U.S. holder. A non-U.S. holder is a beneficial owner of a Note that, for U.S. federal income tax purposes, is a non-resident alien individual, a foreign corporation, or a foreign estate or trust. Under recently finalized U.S. Treasury Department regulations, payments on certain equity-linked instruments (including deemed payments) that are contingent upon or determined by Reference to actual or estimated U.S. source dividends, (regardless of whether such contingency or determination is explicitly stated or implicitly taken into account in computing one or more of the terms of such instruments) may be treated as dividend equivalents subject to withholding tax. Withholding tax will apply to dividend equivalent payments on Notes issued or materially modified on or after January 1, 2017. If any payments are treated as dividend equivalent subject to withholding, we (or the applicable paying agent) would be required to withhold taxes and would not be required to pay any additional amounts with respect to amounts so withheld. Prospective investors of the Notes should consult their own tax advisers regarding the application of the U.S. rules for withholding on dividend equivalents.
Issuer Risk	Investors bear the issuer risk. The Security’s value and the payment of any income or bonus amount (where one is payable) are dependent not only on the development of the Reference Item, but also on the creditworthiness of the Issuer, which may vary over the term of the Security. The ratings of the Issuer noted above reflect the independent opinion of the rating agencies as to the safety of payments of principal and interest. These ratings are not a guarantee of credit quality. The ratings do not take into consideration any risk associated with fluctuations in the market value of this Security, or where factors other than the Issuer’s credit quality determine the level of principal and interest payments.
Reference Item	The value of the Security is linked to the Reference Item(s). The past performance of the Reference Item(s) is not an indication or guarantee of future performance. Any

decision to invest in the Securities should not be based solely or primarily on the past performance of the Reference Item(s). The performance of the Reference Item(s) may be volatile and subject to unpredictable changes over the term of the Security. The investor should be prepared to assume this risk, including the potential risk of insolvency of the Reference Item(s) issuer(s). Fluctuations in price of the Reference Item(s) may result in the investor losing the entire investment or a substantial part of it.

An investment in the Securities does not create a direct investment in the underlying Reference Item(s). Where the Reference Item(s) is an equity/basket of equities, the investor will not be eligible to receive dividend payments or any voting rights associated with a direct investment in the Reference Item(s).

FX Risk Quanto

This Security incorporates a Quanto feature because the currencies of the Reference Items are different to the currency of the Securities. This feature means that when calculating the return of the Securities, the performance of the Reference Items in their base currency is not adjusted to account for the exchange rate between the two currencies at such time. You should also be aware that movements in interest rates of both currencies will affect the valuation of a security using this feature. This exposure to currency exchange fluctuations may come at a cost or benefit to you depending on how currency exchange rates move during the term of the Security. Currency exchange rates may be volatile and subject to unpredictable changes over the term of the Security.

Liquidity Risk

The investor should be prepared to hold this Security until maturity should it not be called or terminated early, if such option exists, by the Issuer. The Dealer will, however, use its reasonable endeavours to provide liquidity to the Security (either directly or through an affiliate) but is not obliged to do so and may stop providing liquidity at any time without notice. This means an investor should not rely on having the ability to redeem the Security at a particular time or for a certain price. If the Security is redeemed early, the investor may get back less than the stated redemption amount. The Issue Price is not a direct reflection of the market value of the Security. The level at which the investor purchases the Security includes hedging costs and profits that the Dealer or its affiliates expect to incur or realize. The Issue Price may also include selling commissions paid by the Dealer to distributors and/or intermediaries. Any selling commissions, costs and profits will reduce the secondary market level, if any secondary market develops, for the Security. As a result, the investor may experience an immediate and substantial decline in the value of the Securities on the Issue Date.

Suitability

This termsheet is provided for information purposes only and should not be used as the sole or primary basis of any investment decision. Transactions of a type described herein, may involve a high degree of risk and may not be suitable for all investors. Transactions in the Securities should not be undertaken unless the prospective investor understands and is capable of bearing all of the risks associated with an investment in the Securities. Before entering into any transaction, potential investors should take steps to ensure they understand the transaction and have assessed the appropriateness of the transaction in light of their own objectives and circumstances, including the possible risks, benefits and also the tax implications of entering into this proposed transaction. The information in this termsheet does not constitute financial, tax or legal advice and should not be used as a substitute for seeking professional advice. The Dealer is acting as an arm's length counterparty and not as an advisor or fiduciary. It is strongly recommended that potential investors consult their own professional advisers.

Institutions referencing this termsheet or extracting information from this termsheet to provide to their clients should ensure that the information satisfies their local jurisdictional requirements and applicable securities laws for conducting business, including any applicable suitability and appropriateness assessment. Investments of a type described herein should only be sold to investors that have the necessary knowledge and experience to fully understand the related risks and are able to bear such risks.

Conflicts of Interest Disclosure

RBC Europe Limited ("RBCEL") forms part of a major banking group. It is therefore possible that RBCEL or one of its subsidiaries, or affiliates, or one of their officers, employees, representatives or agents (together "the Bank Group") or another client of

the Bank Group may have interests, relationships and/or arrangements that give rise to conflicts of interest in relation to business that is transacted with you. Members of the Bank Group may perform a variety of roles in connection with the issuance. The Issuer, Dealer, or their affiliates may act as the Calculation Agent and may enter into positions in connection with the issuance. The Issuer, Dealer, or their affiliates may undertake hedging activity including trading in the Reference Item(s) or instruments related to the Reference Item(s), which may have an adverse impact on the value of the Securities. The Issuer, Dealer, or their affiliates may from time-to-time possess or have access to information concerning the Reference Item(s) and are under no obligation to disclose this information to investors. Any conflicts of interest will be managed in accordance with the Bank Group's established policies and procedures.

Tax Risk	An investment in the Securities may give rise to tax consequences. Any tax liability is dependent on the taxpayer's personal circumstances. The basis and level of any taxes may change during the term of the Security.
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On-sale of Securities	It is strongly recommended that investors seek independent tax advice prior to an investment in the Securities. The Issuer, Dealer and members of the Bank Group do not provide tax advice. To the extent that any general information is provided with regard to tax, this is for information purposes only and should neither be construed as tax advice nor should it be relied on, or treated as a substitute for seeking independent tax advice.
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Calculation of the Reference Index	N/A
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IV. OTHER INFORMATION

SALES RESTRICTION

EEA Retail Investor Offering Information	The Base Prospectus (as contemplated by the Final Terms of the Notes) has been prepared on the basis that any offer of Notes in any Member State of the European Economic Area ("EEA") which has implemented Regulation (EU) 2017/1129 (the "Prospectus Regulation") will be made pursuant to an exemption under the Prospectus Regulation, as implemented in the Relevant State, from the requirement to publish a prospectus for offers of Notes. Accordingly, the Notes should not be sold or offered, directly or indirectly, to persons in any Relevant State except in circumstances which would not require the publication of a prospectus and any person making or intending to make an offer in that Relevant State of Notes should only do so in circumstances in which no obligation arises for the Issuer or RBC Europe Limited to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation in relation to such offer. No recipient of this termsheet is authorized by any person to act in a way which would result in an offer to it being considered to be a placement through an intermediary for the purposes of the Prospectus Regulation.
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UK Retail Investor Offering Information	The Securities are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom ("UK") without an up-to-date UK PRIIPS KID being in place with the prior written consent of RBC Europe Limited and provided in accordance with the UK PRIIPS Regulation. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 ("EUWA"); or (ii) a customer within the meaning of provisions of the FSMA and any rules or regulations made under the Financial Services and Markets Act 2000 (the "FSMA") to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA; or (iii) as defined in Article 2 of Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA. If the aforementioned consent of RBC Europe Limited has not been received then no key information document ("KID") required by Regulation (EU) No
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1286/2014 as it forms part of domestic law by virtue of the EUWA (the "UK PRIIPs Regulation") for offering or selling the Securities or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the Securities or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

Additional UK Offering Information

Each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of any Securities in circumstances in which Section 21(1) of the FSMA would not, if the Issuer was not an authorized person, apply to the Issuer; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Securities in, from or otherwise involving the United Kingdom.

US Offering Information

This document is not an offer of securities for sale in the United States. The Notes have not been and will not be registered under the US Securities Act of 1933, as amended (the "Securities Act") or any state securities laws, and may not at any time be offered, pledged, sold or otherwise transferred, directly or indirectly, in the United States or to, or for the account or benefit of, US Persons (as such term is defined in Regulation S under the Securities Act) unless registered under the Securities Act or pursuant to an exemption from such registration.

Swiss Offering Information

Each offeror of Notes represents and agrees that it has not made and will not make an offer of Notes to the public in Switzerland prior to the publication of a prospectus in relation to the Notes which has been approved by a Swiss prospectus office, all in accordance with the Swiss Federal Financial Services Act ("FinSA"), except that it may make an offer of such Notes to the public in Switzerland in any circumstances falling within the exemptions listed in article 36 para. 1 FinSA, provided that no such offer of Notes shall require the Issuer or any offeror to publish a prospectus pursuant to article 35 of the FinSA. The Issuer has neither authorized, nor does authorize any offer of Notes which would require the Issuer or any offeror to publish a prospectus pursuant to article 35 of the FinSA in respect of such offer. For the purposes of this provision, the expression "offer to the public" refers to the respective definitions in article 3 lit. g and h of the FinSA and as further detailed in the FinSO.

Canadian Offering Information

The Notes have not been and will not be qualified for sale under the securities laws of any province or territory of Canada. Each Dealer has represented and agreed that it has not offered, sold or distributed and will not offer, sell or distribute any securities, directly or indirectly, in Canada or to or for the benefit of any resident of Canada, other than in compliance with applicable securities laws. Each Dealer has also represented and agreed that it has not distributed or delivered and will not distribute or deliver this document, or any other offering material in connection with any offering of the securities, in Canada other than in compliance with applicable securities laws.

Hong Kong Offering Information

WARNING

The contents of this document have not been reviewed by any regulatory authority in Hong Kong or any other jurisdiction. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

This is a structured product which involves derivatives. Do not invest in it unless you fully understand and are willing to assume the risks associated with it. If you are in any doubt about the risks involved in the product, you may clarify with the intermediary or seek independent professional advice.

This document has not been approved by the Securities and Futures Commission in Hong Kong and, accordingly, (i) the Notes (except for Notes which are "structured products" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the "SFO")) may not be offered or sold in Hong Kong by means of this document or any other document other than to "professional investors" as defined in the SFO and

any rules made thereunder, or in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong (the “C(WUMP)O”) or which do not constitute an offer to the public within the meaning of C(WUMP)O, and (ii) no person shall issue or possess for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Notes which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the Notes which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance and any rules made thereunder. For distribution through Hong Kong, Royal Bank of Canada Hong Kong Branch and/or its associates will receive monetary benefits in distributing this product.

Singapore Offering Information

Each Dealer acknowledges that the Base Prospectus has not been, and will not be, registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each Dealer represents, warrants, and agrees that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, the Base Prospectus, this termsheet or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of any Notes, whether directly or indirectly, to any person in Singapore other than (a) to an institutional investor (as defined in Section 4A of the SFA) pursuant to Section 274 of the SFA, (b) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or to any person pursuant to Section 275(1A) of the SFA and in accordance with the conditions specified in Section 275 of the SFA or (c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an individual who is an accredited investor, securities or securities-based derivative contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within 6 months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:
 - (i) to an institutional investor or to a relevant person or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(c)(ii) of the SFA;
 - (ii) where no consideration is or will be given for the transfer;
 - (iii) where the transfer is by operation of law;
 - (iv) as specified in Section 276(7) of the SFA; or
 - (v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018 of Singapore.

Notification under Section 309B(1)(c) of the Securities and Futures Act 2001 of Singapore, as modified or amended from time to time (the "SFA") - The Notes shall be (i) prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and (ii) Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

UAE (excluding Dubai International Financial Centre) Offering Information	Each Dealer has represented and agreed that Notes have not been, and will not be, offered, sold or publicly promoted or advertised by it in the United Arab Emirates other than in compliance with any laws applicable in the United Arab Emirates governing the issue, offering and sale of Notes.
Bahrain Offering Information	This document has been prepared for information purposes of intended investors only who will be high net worth individuals and institutions. The issuer represents and warrants that it has not made and will not make any invitation in or from the kingdom of Bahrain and will not market or offer the securities to any potential investor in Bahrain. All marketing and offering is made and will be made outside the kingdom of Bahrain. The central bank of Bahrain has not reviewed, nor has it approved, this document or the marketing of the securities and takes no responsibility for the accuracy of the statements and information contained in this document, nor shall it have any liability to any person for any loss or damage resulting from reliance on any statements or information contained herein.
Israel Offering Information	<p>Israeli Securities law. Neither such offering nor the Notes have been qualified or approved by the Israeli Securities Authority or any other government or regulatory body. RBC is not licensed under The Regularization of Engagement in Investment Counselling Investment Marketing and Portfolio Management Law, 1995 (the "Counselling Law") and therefore, RBC does not carry insurance as would be required if RBC were licensed.</p> <p>The purchaser represents, warrants and covenants that: (i) the purchaser is acquiring the Notes as a principal only and not as an agent of Royal Bank of Canada, (ii) all risks associated with the holding or owning of the Notes are irrevocably transferred to the purchaser upon the purchase of such Notes by the purchaser, (iii) the purchaser will not share with RBC any gains or losses it realizes in connection with the Notes; (iv) neither RBC nor RBC EL has provided the purchaser with any investment advice in connection with the purchaser's purchase of the Notes and the purchaser has consulted with its own investment advisors in connection therewith; (v) to the extent relevant to the purchaser. The purchaser will comply with the applicable provisions of Israel's Currency Control Law, 1978 and the amended Currency Control Permit, 1998 promulgated thereunder in connection with the Notes; and (vi) the purchaser shall at all times comply with Israeli and other applicable laws and regulations, including securities laws and regulation, in connection with Notes and the purchaser shall take no action which would or not fail to take any action if the failure would cause RBC or RBC EL to be in violation of any such laws or regulations.</p>
Monaco Offering Information	The securities may not be offered or sold, directly or indirectly, to the public in Monaco other than by a Monaco Bank or a duly authorized Monegasque intermediary. Consequently, this document may only be communicated to Monaco banks duly licensed by the "Autorité de Contrôle Prudentiel" and fully licensed Monaco portfolio management companies by virtue of Law n° 1.144 of July 26, 1991 and Law 1.338, of September 7, 2007 duly licensed by the "Commission de Contrôle des Activités Financières" ("CCAF"). Such regulated intermediaries may in turn communicate this document to potential investors.
Dubai International Financial Centre Offering Information	<p>Each Dealer has represented and agreed that it has not offered and will not offer Notes to any person in the Dubai International Financial Centre unless such offer is:</p> <ul style="list-style-type: none"> (a) An "Exempt Offer" in accordance with the Market Rules (MKT) Module of the Dubai Financial Services Authority (the "DFSA") rulebook; and (b) Made only to persons who meet the Professional Client criteria set out in Rule 2.3.3 of the Conduct of Business Module of the DFSA rulebook.
Japan Offering Information	No registration pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended) (the "FIEA") has been made or will be made with respect to the Notes. The Dealer has represented and agreed, and each further Dealer appointed under the Base Prospectus will be required to represent and agree, that it will not offer or sell any Notes, directly or indirectly, in Japan or to, or for the benefit of, any Resident of Japan (as defined under Article 6, Paragraph 1, Item 5 of the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949, as amended)), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit

of a resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEA and any other applicable laws, regulations and ministerial guidelines of Japan.

INDEX DISCLAIMER

Nikkei 225

INFORMATION RELATING TO THE NIKKEI 225 INDEX

Unless otherwise stated, all information herein relating to Nikkei 225 has been derived from publicly available sources. Such information reflects the policies of Nikkei as of the date hereof as stated in such sources; such policies are subject to change at the discretion of Nikkei.

Nikkei 225 is a stock index calculated, published and disseminated by the Sponsor on behalf of Nikkei that measures the composite price performance of selected Japanese stocks. Nikkei 225 is currently based on 225 underlying stocks listed in the First Section on Tokyo Stock Exchange ("**TSE**") representing a broad cross-section of Japanese industries. Stocks listed in the First Section are among the most actively traded stocks on the TSE.

While Nikkei and the Sponsor currently employ the following methodology to calculate Nikkei 225, no assurance can be given that Nikkei will not modify or change such methodology in a manner that may affect any amount payable in respect of the Instruments.

Nikkei 225 is a modified, price-weighted index (i.e., an underlying stock's weight in the index is based on its price per share rather than the total market capitalisation of the issuer) which is calculated by (i) multiplying the per share price of each underlying stock by the corresponding multiplier for such underlying stock (a "**Multiplier**"), (ii) calculating the sum of all these products and (iii) dividing such sum by a divisor (the "**Divisor**"). The Divisor, initially set in 1949 at 225, was 24.975 as of 15 July 2013 and is subject to adjustments as set forth below. Each Multiplier is computed by dividing yen 50 by the presumed par value of the relevant underlying stock determined by Nikkei, so that the share price of each underlying stock when multiplied by its Multiplier corresponds to a share price based on a uniform presumed par value of yen 50. The par value stock system was abolished with effect as of 1 October 2001. The current presumed par value of each underlying stock is based on its par value immediately before the abolition of the par value of Japanese stock as of 1 October 2001, subject to subsequent adjustment as set forth below. The stock prices used in the calculation of Nikkei 225 are those reported by the TSE. The level of Nikkei 225 is calculated once per minute during TSE trading hours.

In order to maintain continuity in the level of Nikkei 225 in the event of certain changes due to non-market factors affecting the underlying stocks, such as the addition or deletion of underlying stocks, substitution of stocks or stock splits, the Divisor or, as the case may be, the presumed par value of the relevant underlying stock used in calculating Nikkei 225 is adjusted in order that the level of Nikkei 225 is not altered in an uncoordinated way and thereby lacks continuity. Thereafter, the Divisor remains at the new value until a further adjustment is necessary as the result of another change. As a result of such change affecting any underlying stock, the Divisor is adjusted in such a way that the sum of all share prices immediately after such change multiplied by the applicable Multiplier and divided by the new Divisor (i.e., the level of Nikkei 225 immediately after such change) will equal the level of Nikkei 225 immediately prior to the change.

Underlying stocks may be deleted or added by Nikkei. The composition of underlying stocks is, in general, reconsidered once a year, on the first business day of October, pursuant to the periodic reconsideration standard set up by Nikkei. There is no upper limit to the number of stocks to be replaced under the periodic reconsideration. Further, other than the periodic reconsideration, any stock becoming ineligible for listing in the First Section of the TSE due to any of the following reasons will be deleted from the underlying stocks: (i) delisting or transfer to "Seiri-Post" because of bankruptcy (such as filing an application for the application of the company reorganisation law or civil rehabilitation law, or company liquidation, etc.), (ii) delisting because of corporate restructuring such as merger into another company, stock-transfer or stock-for-stock exchange (iii) delisting or transfer to the "Seiri-Post" because of excess debt or any other reason or (iv) transfer to the Second Section. Any underlying stock which is transferred to the "Kanri-Post" because of the high likelihood that it will become delisted or because it is undergoing an inspection of the application for delisting is in principle a candidate for deletion; however, the actual deletion of such stock will be decided after taking into account the possibility of continuance of business of the issuer or the likelihood of delisting, etc. Upon deletion of a stock from the underlying stocks, Nikkei will select a suitable replacement for such deleted underlying stock in accordance with certain criteria. As a general rule, in each case, the number of

stocks to be deleted from and the number of replacement stocks to be added to the underlying stocks shall be the same and such replacement will be made on the same day to maintain the number of the underlying stocks at 225. However, under special circumstances Nikkei 225 may be calculated with less than 225 underlying stocks for a limited period of time between the deletion of a stock and the addition of a replacement stock. During this period the continuity in the index value of Nikkei 225 will be maintained by adjusting the Divisor each time upon addition, deletion or substitution of the underlying stock(s).

Disclaimer

The Index is an intellectual property of Nikkei. "Nikkei", "Nikkei Stock Average", and "Nikkei 225" are the service marks of Nikkei. Nikkei reserves all the rights, including copyright, to the index.

The Instruments are not in any way sponsored, endorsed or promoted by the Index Sponsor. The Index Sponsor does not make any warranty or representation whatsoever, express or implied, either as to the results to be obtained as to the use of the Index or the figure as which the Index stands at any particular day or otherwise. The Index is compiled and calculated solely by the Index Sponsor. However, the Index Sponsor shall not be liable to any person for any error in the Index and the Index Sponsor shall not be under any obligation to advise any person, including a purchase or vendor of the Instruments of any error therein.

In addition, the Index Sponsor gives no assurance regarding any modification or change in any methodology used in calculating the Index and is under no obligation to continue the calculation, publication and dissemination of the Index.

None of the Issuer, the Calculation Agent, or any Paying Agent accepts any responsibility for the calculation, maintenance or publication of the Index or any successor index. BLOOMBERG (THE "INDEX SOURCE") DOES NOT GUARANTEE THE ACCURACY AND/OR THE COMPLETENESS OF ANY UNDERLYING INDEX OR ANY DATA INCLUDED THEREIN AND THE INDEX SOURCE SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INTERRUPTIONS THEREIN. THE INDEX SOURCE MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO RESULTS TO BE OBTAINED BY ROYAL BANK OF CANADA, THE NOTEHOLDERS OR ANY OTHER PERSON OR ENTITY FROM THE USE OF ANY UNDERLYING INDEX OR ANY DATA INCLUDED THEREIN. THE INDEX SOURCE MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO AN UNDERLYING INDEX OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL THE INDEX SOURCE HAVE ANY LIABILITY FOR ANY SPECIAL, PUNITIVE, INDIRECT OR CONSEQUENTIAL DAMAGES OR LOSSES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

S&P 500 INDEX

INFORMATION RELATING TO STANDARD & POOR'S 500 INDEX

All disclosure contained herein regarding the S&P 500 Index (the "S&P Index"), including, without limitation, its make-up, method of calculation and changes in its component, is derived from publicly available information prepared by Standard & Poor's ("S&P"). The Issuer does not take any responsibility for the accuracy or completeness of such information.

Calculation of the S&P Index

The S&P Index is published by S&P and is intended to provide an indication of the pattern of common stock price movement of the stocks included in the S&P Index. The calculation of the value of the S&P Index (discussed below in further detail) is based on the relative value of the aggregate market value ("Market Value") of the common stocks of 500 companies as of a particular time as compared to the aggregate average Market Value of the common stocks of 500 similar companies during the base period of the years 1941 through 1943.

As of 29th April, 1994, the 500 companies included in the S&P Index represented approximately 74% of the aggregate Market Value of common stocks traded on the New York Stock Exchange; however, the 500 companies are not the 500 largest companies listed on the New York Stock Exchange and not all 500 companies are listed on such exchange. S&P chooses companies for inclusion in the S&P Index with the aim of achieving a distribution by broad industry groupings that approximates the distribution of these groupings in the common stock population of the New York Stock Exchange, which S&P uses as an assumed model for the composition of the total market. Relevant criteria employed by S&P include the viability of the particular company, the extent to which the company represents the industry group to which it is assigned, the extent to which the market price of the company's common stock is generally responsive to changes in the affairs of the respective industry and the Market Value and trading activity of the common stock of that company. S&P may from time

to time, in its sole discretion, add companies, to, or delete companies from, the S&P Index to achieve the objectives stated above.

The S&P Index is a weighted arithmetic index. This means that a change in the price of any stock is weighted by the total market capitalisation of the company rather than its price per stock.

Stock prices are taken from the New York Stock Exchange and the S&P Index is currently updated each minute of the day, from 9:30a.m. to 4:30p.m. (New York time), in order to provide accurate information on a continuous real time basis. The level of the S&P Index appears, inter alia, on Bloomberg Ticker SPX Index.

Disclaimer

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Purpose

This document provides you with key information about this investment product. It is not marketing material. The information is required by law to help you understand the nature, risks, costs, potential gains and losses of this product and to help you compare it with other products.

Product

Product name	Autocallable Barrier Worst-of Reverse Convertible Note Linked to a Basket of Indices
Product identifier	ISIN: XS2570627245 Valor: 123635229
PRIP manufacturer	RBC Europe Limited (http://www.rbcnotes.co.uk/). The product issuer is Royal Bank of Canada (Toronto Branch). Call +44 (0) 20 7029 0555 for more information.
Competent authority of the PRIP manufacturer	Authorised by the U.K. Prudential Regulation Authority and regulated by the U.K. Financial Conduct Authority and U.K. Prudential Regulation Authority
Date and time of production	19 January 2023 14:01 Paris local time

You are about to purchase a product that is not simple and may be difficult to understand.

1. What is this product?

Type	Canadian law governed notes
Term	The product has a fixed term and will be due on 23 January 2024, subject to an early redemption.
Objectives (Terms that appear in bold in this section are described in more detail in the table(s) below.)	<p>The product is designed to provide a return in the form of (1) regular fixed interest payments and (2) a cash payment on termination of the product. The timing and amount of this payment will depend on the performance of the underlyings. If, at any time during the barrier observation period, any of the underlyings has fallen below its barrier level, the product may return less than the product notional amount or even zero.</p> <p>Early termination following an autocall: The product will terminate prior to the maturity date if, on any autocall observation date, the reference level of the worst performing underlying is at or above its autocall barrier level. On any such early termination, you will on the immediately following autocall payment date receive, in addition to a final interest payment, a cash payment equal to the autocall payment of USD 1,000.00. No interest payments will be made on any date after such autocall payment date. The relevant dates are shown in the table(s) below.</p>

Autocall observation dates	Autocall payment dates
5 July 2023	19 July 2023
5 October 2023	20 October 2023
5 January 2024	Maturity date

Interest: If the product has not terminated early, on each **interest payment date** you will receive an interest payment of USD 27.25. The interest payments are not linked to the performance of the **underlyings**. The relevant dates are shown in the table(s) below.

Interest payment dates
21 April 2023
19 July 2023
20 October 2023
Maturity date

Termination on the maturity date: If the product has not terminated early, on the **maturity date** you will receive:

- if a **barrier event** has not occurred, a cash payment equal to USD 1,000; or
- if the **final reference level** of the **worst performing underlying** is at or above its **strike level** and a **barrier event** has occurred, a cash payment equal to USD 1,000; or
- if the **final reference level** of the **worst performing underlying** is below its **strike level** and a **barrier event** has occurred, a cash payment directly linked to the performance of the **worst performing underlying**. The cash payment will equal (i) the **product notional amount** multiplied by (ii) (A) the **final reference level** of the **worst performing underlying** divided by (B) its **strike level**.

Under the product terms, certain dates specified above and below will be adjusted if the respective date is either not a business day or not a trading day (as applicable). Any adjustments may affect the return, if any, you receive.

The product terms also provide that if certain exceptional events occur (1) adjustments may be made to the product and/or (2) the product issuer may terminate the product early. These events are specified in the product terms and principally relate to the **underlyings**, the product and the product issuer. The return (if any) you receive on such early termination is likely to be different from the scenarios described above and may be less than the amount you invested.

Underlyings	Nikkei 225 (Price return index) (NKY; ISIN: XC0009692440; Bloomberg: NKY Index), S&P 500 INDEX (Price return index) (SPX; ISIN: US78378X1072; Bloomberg: SPX Index) and EURO STOXX 50 Price EUR (Price return index) (SX5E; ISIN: EU0009658145; Bloomberg: SX5E Index)	Barrier event	The level of any underlying is below its barrier level at any point during any trading day in the barrier observation period
Underlying market	Equity	Barrier observation period	Initial valuation date (exclusive) - 5 January 2024 (inclusive)
Product notional amount	USD 1,000	Reference level	The closing level of an underlying as per the relevant reference source
Issue price	100.00% of the product notional amount	Reference sources	<ul style="list-style-type: none"> NKY: Nikkei SPX: Standard & Poor's SX5E: STOXX
Product currency	U.S. Dollar (USD)	Final reference level	The reference level on the final valuation date

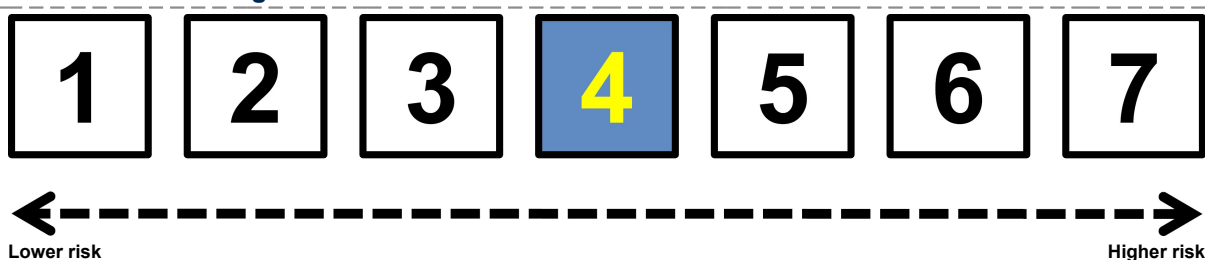
Underlying currencies	<ul style="list-style-type: none"> • NKY: Japanese Yen (JPY) • SPX: USD • SX5E: Euro (EUR) 	Initial valuation date	<ul style="list-style-type: none"> • NKY: 6 January 2023 • SPX: 5 January 2023 • SX5E: 5 January 2023
Issue date	19 January 2023	Final valuation date	5 January 2024
Initial reference level	<ul style="list-style-type: none"> • NKY: 25,973.85 • SPX: 3,808.1 • SX5E: 3,959.48 	Maturity date / term	23 January 2024
Strike level	<ul style="list-style-type: none"> • NKY: 25,973.85 • SPX: 3,808.1 • SX5E: 3,959.48 	Autocall barrier level	<ul style="list-style-type: none"> • NKY: 25,973.85 • SPX: 3,808.1 • SX5E: 3,959.48
Barrier level	<ul style="list-style-type: none"> • NKY: 15,584.31 • SPX: 2,284.86 • SX5E: 2,375.688 	Worst performing underlying	For a given date, the underlying with the worst performance between the initial reference level and the relevant reference level

Intended retail investor The product is intended to be offered to retail investors who fulfil all of the criteria below:

1. they have basic knowledge and/or experience of investing in similar products which provide a similar market exposure and have the ability to understand the product and its possible risks and rewards, either independently or through professional advice;
2. they seek income, expect the movement in the underlyings to perform in a way that generates a favourable return, have an investment horizon of the recommended holding period specified below and understand that the product may terminate early;
3. they accept the risk that the issuer could fail to pay or perform its obligations under the product and they are able to bear a total loss of their investment; and
4. they are willing to accept a level of risk to achieve potential returns that is consistent with the summary risk indicator shown below.

2. What are the risks and what could I get in return?

Risk indicator



The risk indicator assumes you keep the product until 23 January 2024. The actual risk can vary significantly if you cash in at an early stage and you may get back less. You may not be able to sell your product easily or may have to sell at a price that significantly impacts on how much you get back.

The summary risk indicator is a guide to the level of risk of this product compared to other products. It shows how likely it is that the product will lose money because of movements in the markets or because we are not able to pay you.

We have classified this product as 4 out of 7, which is a medium risk class. This rates the potential losses from future performance at a medium level, and poor market conditions are very unlikely to impact our capacity to pay you.

To the extent the currency of the country in which you purchase this product or your account currency differs from the product currency, please be aware of currency risk. You will receive payments in a different currency so the final return you will get depends on the exchange rate between the two currencies. This risk is not considered in the indicator shown above.

This product does not include any protection from future market performance so you could lose some or all of your investment.

Inflation erodes the purchasing value of cash over time and this may result in the decline in real terms of any capital reimbursed or interest you may be paid under the investment.

If we are not able to pay you what is owed, you could lose your entire investment.

For detailed information about all risks relating to the product please refer to the risk sections of the prospectus and any supplements thereto as specified in the section "7. Other relevant information" below.

Performance scenarios What you will get from this product depends on future market performance. Market developments in the future are uncertain and cannot be accurately predicted.

The scenarios shown are illustrations based on results from the past and on certain assumptions. Markets could develop very differently in the future.

Recommended holding period:	Until the product is called or matures	
	This may be different in each scenario and is indicated in the table	
Example investment:	USD 10,000	
Scenarios	<i>If you exit at call or maturity</i>	
Minimum	USD 1,090. The return is only guaranteed if you hold the product to early call or maturity. You could lose some or all of your investment.	
Stress (product ends after 1 year)	What you might get back after costs Average return each year	USD 6,509 -34.60%
Unfavourable (product ends after 6 months)	What you might get back after costs Percentage return (not annualised)	USD 10,545 5.45%
Moderate (product ends after 1 year)	What you might get back after costs Average return each year	USD 11,090 10.77%
Favourable (product ends after 1 year)	What you might get back after costs Average return each year	USD 11,090 10.77%

The favourable, moderate and unfavourable scenarios represent possible outcomes that have been calculated based on simulations using the reference assets' performance over up to 5 past years. In the case of an early redemption, it has been assumed that no reinvestment has occurred. The stress scenario shows what you might get back in extreme market circumstances. This product cannot be easily cashed in. If you exit the investment earlier than the recommended holding period you do not have a guarantee and you may have to pay extra costs.

The figures shown include all the costs of the product itself, but may not include all the costs that you pay to your advisor or distributor. The figures do not take into account your personal tax situation, which may also affect how much you get back.

3. What happens if the issuer is unable to pay out?

You are exposed to the risk that the issuer might be unable to meet its obligations in connection with the product for instance in the event of bankruptcy or an official directive for resolution action. This may materially adversely affect the value of the product and could lead to you losing some or all of your investment in the product. The product is not a deposit and as such is not covered by any deposit protection scheme.

4. What are the costs?

The person advising on or selling you this product may charge you other costs. If so, this person will provide you with information about these costs and how they affect your investment.

Costs over time

The tables show the amounts that are taken from your investment to cover different types of costs. These amounts depend on how much you invest, how long you hold the product and how well the product does. The amounts shown here are illustrations based on an example investment amount and different investment periods.

The duration of this product is uncertain as it may terminate at different times depending on how the market evolves. The amounts shown here consider two different scenarios (early call and maturity). In case you decide to exit before the product ends, exit costs may apply in addition to the amounts shown here.

We have assumed:

- USD 10,000 is invested
- a performance of the product that is consistent with each holding period shown.

	<i>If the product is called at the first possible date, on 19 July 2023</i>	<i>If the product reaches maturity</i>
Total costs	USD 117	USD 117
Annual cost impact*	1.25%	1.30% each year

*This illustrates how costs reduce your return each year over the holding period. For example it shows that if you exit at maturity your average return per year is projected to be 12.07% before costs and 10.77% after costs.

We may share part of the costs with the person selling you the product to cover the services they provide to you. They will inform you of the amount.

Composition of costs

	One-off costs upon entry or exit	If you exit after 1 year
Entry costs	1.17% of the amount you pay in when entering this investment. These costs are already included in the price you pay.	USD 117
Exit costs	0.50% of your investment before it is paid out to you. These costs are already included in the price you receive and are only incurred if you exit before maturity. If an early redemption occurs or if you hold the product until maturity, no exit costs will be incurred.	USD 50

5. How long should I hold it and can I take money out early?

Recommended holding period: 1 year

The product aims to provide you with the return described under "1. What is this product?" above. However, this only applies if the product is held to maturity. It is therefore recommended that the product is held until 23 January 2024 (maturity).

The product does not guarantee the possibility to disinvest other than by selling the product either (1) through the exchange (if the product is exchange traded) or (2) off-exchange, where an offer for such product exists. No fees or penalties will be charged by the issuer for any such transaction, however an execution fee might be chargeable by your broker if applicable. By selling the product before its maturity, you may receive back less than you would have received if you had kept the product until maturity.

Exchange listing	Not applicable	Price quotation	Percentage
Smallest tradable unit	USD 1,000.00		

In volatile or unusual market conditions, or in the event of technical faults/disruptions, the purchase and/or sale of the product can be temporarily hindered and/or suspended and may not be possible at all.

6. How can I complain?

Any complaint regarding the conduct of the person advising on, or selling, the product can be submitted directly to that person.

Any complaint regarding the product or the conduct of the manufacturer of this product can be submitted in writing at the following address: 100 Bishopsgate, London, EC2N 4AA, by email to: KID_Complaints@rbccm.com or at the following website: <https://www.rbcprips.eu>.

7. Other relevant information

Any additional documentation in relation to the product, in particular, the issuance programme documentation, any supplements thereto and the product terms are available free of charge from 100 Bishopsgate, London, EC2N 4AA or can be accessed at <https://www.rbc.com/investor-relations/european-senior-notes-program.html#offering-documents-content>.

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