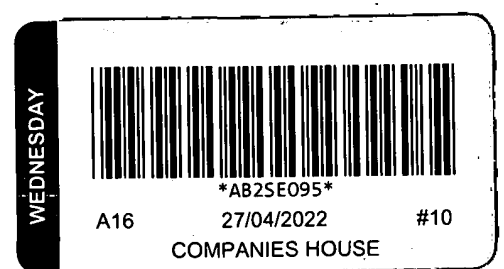


J.P. MORGAN SECURITIES PLC

(Registered Number: 02711006)

Annual report for the year ended 31 December 2021



J.P. MORGAN SECURITIES PLC

Annual report for the year ended 31 December 2021

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J.P. MORGAN SECURITIES PLC

Chairman's Statement

Overview

During the year the return to the office strategy, operational resilience, outsourcing, resolvability, climate change risk, and board succession and effectiveness continued to be key areas of focus for the Company. The Board also took an active role in discussing the progress being made under the LIBOR transition program and the challenges associated with transitioning to the preferred alternative. The Board additionally engaged on other thematic issues particularly those with a regulatory focus to enable it to oversee and monitor developments, such as climate risk and operational risk.

The central theme at our annual Board Strategy day this year was the post-Brexit operating model, as well as human capital and the ESG strategy. These issues will be part of our future planning. Also included in our discussions at the Strategy day was an update on technology, data, digital and platform service.

The Board remains committed to ensuring that the Group's culture and core values are embedded throughout the Company, and monitors conduct issues via its Risk Committee, receives regular conduct updates at its meetings and monitors its robust Whistleblowing framework. During 2021, the Board also re-instated its informal employee engagement across the Corporate and Investment Bank through joint breakfast sessions and individual meetings.

The Board, in all its deliberations, ensured that the Company complied with the requirements of section 172 of the Companies Act 2006 by promoting the success of the Company and its stakeholders as set out in section 172(1). The Company's statement of corporate governance arrangements, set out on pages 56 - 66, provides further information on how this was achieved in practice.

Financial security

The Company had a satisfactory year in the light of external circumstances around COVID-19 and the Brexit transition of part of its business to Continental European entities. More detail is to be found in pages 56 - 66.

Outlook

During the year, the Company will continue to focus on the key themes outlined above, including operational resilience and board succession and effectiveness, as well as non-financial operational controls.

As detailed in the Chief Executive Officer's report and the Strategic report, the Company has been, and will continue to actively monitor and take measures to address developments related to Russia's invasion of Ukraine. This has included assisting clients with their obligations and the management of risk; considering sanctions and screening, together with regulators and industry groups; considering the risk associated with, and putting in place measures to deal with, potential cyber-attacks; and the broader implications, for example implications for the global energy markets and supply chains. The Company and the firm also continues to support employees who have been affected by the crisis.

Board composition and succession planning

During the year, as part of succession planning the Board and its Nomination Committee have continued to review the Board's skills matrix to ensure the right balance of skills, experience and background. As part of the succession plans, after 20 years Andrew Cox retired from the Board on 2 December 2021. During 2021, we also welcomed Michael Cole-Fontayn to the Board. I would like to thank Andrew for his dedicated service to the Board, and to welcome Michael.

As detailed in my last Chairman's statement, Professor Scott Moeller has served as a non-executive director for nine years. In light of regulatory expectations in terms of independence, Scott will retire as a non-executive director and chair of the Company's Risk Committee from 30 April 2022. I want to use this opportunity to express my and the Board's thanks to Scott for his contributions to the Board deliberations during his tenure as director of the Company and as chair of the Risk Committee. Edward Ocampo will be appointed as a non-executive director and as the new chair of the Risk Committee with effect from that date. The Board welcomes Edward, and looks forward to working with him as he takes on this new role.

Looking to the future, I plan to retire from my role as Chair of the Board during 2022, and we are in the process of appointing my successor.

The Board, through its Nomination Committee, will retain its focus on diversity as it develops its succession plans for both executive and non-executive directors for the future.

J.P. MORGAN SECURITIES PLC

Chairman's Statement (continued)

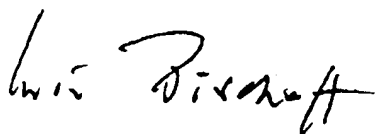
Board performance and evaluation

The Board Effectiveness Review was conducted during December 2021 and the first quarter of 2022 by Independent Audit Limited ("IAL"). IAL was selected after a tender process and has no prior connection with the Company. The review was designed to consider the effectiveness of the Board and its key Committees. In order to conduct the review, IAL interviewed each director of the Company, as well as regular Board and Committee attendees. In addition, they attended Board and Committee meetings during Q4 2021. Based on this review, the Board concluded that there were no major shortcomings in the quality of its oversight, but are nevertheless considering potential enhancements to its governance which will be implemented during 2022.

Acknowledgement

I would like to thank my fellow Board members, the management, and our employees for their continued commitment, skill, dedication and engagement throughout 2021 which was a year of unprecedented challenge but also of progress in a number of important areas.

For further details on Board composition and governance, please refer to the Governance report pages 57 - 58.



Sir Winfried Bischoff

Chairman

21 April 2022

J.P. MORGAN SECURITIES PLC

Chief Executive Officer report

2021 was another extraordinary year for our business, clients and communities.

Economies began to re-open after the pandemic but new virus outbreaks continued to appear and supply chains remained disrupted. The recovery was incomplete and we stepped up once again to help clients shore up balance sheets and respond to the ongoing crisis.

Financial performance

Despite the challenging environment, financially our Corporate and Investment Bank had a very strong year. Unprecedented deal volumes driven by high M&A activity in Investment Banking and better-than-expected trading revenues helped fuel standout results. In Markets, revenues were down from 2020's highs but our trading businesses still generated extremely strong results, particularly in Equities, which had its best-ever year.

The power of technology

Many of our businesses achieved all-time records in 2021. But we cannot afford to be complacent. The competition from Big Tech, fintechs and established rivals has never been as fierce. Consistent, strong performance has been the bedrock for investment in our future and we are fortunate in being able to commit considerable firepower to enhance our platform and client offering. The chief target of investments is modernizing our technology environment; increasingly, we are moving to the cloud to boost our speed, output, and ability to serve clients better and faster.

Strong data management is also becoming a clear differentiator. We and our clients are looking to unlock greater value from data by making it more available for use at scale and by employing artificial intelligence and machine learning techniques.

Simplifying our branch model

2021 was another significant year in the restructuring of our business following the U.K.'s vote to leave the European Union. We closed J.P. Morgan Securities plc branches in Italy, Spain and Sweden, simplifying our booking models and legal entity structures and positioning us well for future growth.

J.P. Morgan Securities plc looks forward to continuing to have strong business relationships with our European partners.

Climate action

Growth and innovation must be achieved sustainably. We understand the sense of urgency to combat change in our climate and we are taking action.

In 2020, JPMC achieved carbon-neutrality in our own operations and in 2021 we set a new target to reduce our Scope 1 and Scope 2 (location-based) greenhouse gas emissions by 40% by 2030 over a 2017 baseline. We have also spelled out how we will thoughtfully and transparently decarbonise our financing portfolio over the next decade.

In 2021, the Firm became the first U.S. bank to set carbon intensity targets in key sectors of our financing portfolio by 2030 and announced a new firmwide target to finance and facilitate \$2.5 trillion over the next 10 years to further sustainable development, including \$1 trillion to support green initiatives. As part of our efforts, we are also advising companies on how they can reduce their carbon footprints and shift to cleaner energy sources, and doing so in a practical, equitable way that ensures the consistent supply of reasonably priced energy to consumers during the transition.

There are no easy solutions to our climate and energy crises, but we believe we can best tackle these challenges if business and government work together to address them.

Job skills for the digital economy

Business investment comes hand in hand with support for our communities. Much of that is targeted at boosting social mobility and giving students from less privileged backgrounds job skills to thrive in the modern workplace.

In 2021, we extended our partnership with the Sutton Trust, a charity set up in 1997 to boost the educational and work opportunities for students from lower income backgrounds.

Fifteen years after our relationship began, we made a fresh £5.5 million commitment to establish a long-running endowment fund to give talented students a comprehensive schedule of support, including residential summer schools, master classes and mentoring.

The pandemic has disproportionately affected already hard-hit communities. We have been working hard to increase the pathways into the business and leadership positions for people from all socio-economic backgrounds. This fresh pledge will open the door to opportunity for many more.

J.P. MORGAN SECURITIES PLC

Chief Executive Officer report

An end to the pandemic but geopolitical tensions rise

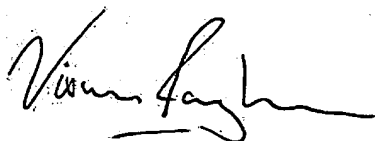
In 2022, mass immunity, vaccinations and antiviral drugs should bring an end to the pandemic.

After two long, hard years, the world appears on the verge of opening up again. Restrictions are easing, releasing pent-up consumer and corporate demand. Businesses and investors are hungry to put capital to work. But there will be challenges too as we work through the consequences of the pandemic and the massive injections of financial life support.

On top of that, geopolitical tensions have resurfaced. Of immediate and urgent concern is the violence and suffering taking place in Ukraine: devastation for its citizens and a massive humanitarian crisis in Europe. The situation has, without question, intensified anxiety in global markets, particularly commodity markets. The full economic ramifications of the conflict, including the potential effects on global growth, can't yet be measured. Of much greater importance, the human cost is also yet to be determined. Our focus is on supporting the relief efforts and our hope is for peace in the region very soon.

Reflecting again on the challenges of 2021, I am incredibly proud of how our teams rallied to serve clients. We did what we have always done: we adapted, were flexible and stayed connected.

This desire to put clients first as well as our unique combination of stability and innovation, and culture of collaboration and community mindedness give me great confidence for the years to come.



Viswas Raghavan
Chief Executive Officer

21 April 2022

London

J.P. MORGAN SECURITIES PLC

Strategic report

The directors present the Strategic report of J.P. Morgan Securities plc (the "Company" or "JPMS plc") for the year ended 31 December 2021.

Overview

JPMS plc, a public limited company incorporated in England and Wales, is an indirect subsidiary of JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A."), a national banking association in the United States of America ("U.S.") and a principal subsidiary of JPMorgan Chase & Co. ("JPMorgan Chase" or "JPMC" or the "Firm"). JPMorgan Chase is a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and is one of the largest banking institutions in the U.S. with operations worldwide. JPMS plc had \$716 billion in assets and \$46 billion in total shareholder's equity as of 31 December 2021.

Review of business

The directors are satisfied with the performance of the Company as it continues to maintain a strong balance sheet and earn competitive market return as a principal JP Morgan UK subsidiary. Total assets and liabilities decreased overall due to a fall in securities purchased under agreements to resell and securities sold under agreements to repurchase, primarily due to client activity. Additionally, there was a decrease in financial assets and liabilities at fair value through profit or loss, mainly due to the improved netting on OTC derivatives. The Company continues to be well capitalised and met all external capital requirements.

Key performance indicators ("KPIs")

The directors monitor progress on the performance of the Company using various metrics. The primary KPIs are set out below:

Financial performance (in USD '000's except for capital ratios)	2021	2020
Income statement		
Total operating income	7,438,698	7,946,824
Profit before taxation	2,374,545	3,083,719
Profit for the financial year (after tax)	1,721,808	1,978,731
Balance sheet		
Total assets	715,793,446	836,282,995
Return on assets	0.2 %	0.2 %
Capital ratios (unaudited)		
Common Equity Tier 1	44,422,470	45,182,383
Common Equity Tier 1 ratio ("CET 1")	19.3 %	18.7 %
Pillar 1 capital ratio	24.5 %	23.7 %
Regulatory minimum total required capital ratio *	8.0 %	8.0 %

* Represents minimum requirements of the Capital Requirement Regulation on-shored in the UK under PRA supervision. The Company's total capital ratio as of 31 December 2021 and 2020 exceeded the minimum requirements, as well as the additional capital requirements specified by the PRA.

Income statement

The income statement for the year ended 31 December 2021 is set out on page 73. Net operating income was \$7.4 billion for 2021 (2020: \$7.9 billion). The results for the Company show a pre-tax profit of \$2.4 billion for 2021 (2020: \$3.1 billion). Net operating income was down year on year, driven by decreased client activity in a number of lines of business ("LOB's").

Balance sheet

The balance sheet is set out on page 75. The Company has total assets and total liabilities of \$715.8 billion (2020: \$836.3 billion) and \$669.3 billion (2020: \$789.6 billion) respectively, as at 31 December 2021.

Capital ratios

The Company continues to maintain strong capital ratios. Refer to the Risk management section on pages 11 - 49 for further details.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Future outlook

The Company's outlook for the full 2022 year should be viewed against the backdrop of the global economy, financial markets activity, the geopolitical environment, the competitive environment, client activity levels and regulatory and legislative developments in the countries where the Company does business. Each of these inter-related factors will affect the performance of the Company and its lines of business.

The Company has been actively monitoring and taking measures to address developments related to Russia's invasion of Ukraine including reducing exposures and managing key risks in response to increased market volatility. The Company's client facing business activities have generally been limited to assisting clients with fulfilling or terminating pre-existing obligations and managing their Russian related risk.

The Company utilised the Firmwide controls on sanctions and screening. The Firm has engaged and continues to engage with regulators and industry groups to analyse and implement procedures to comply with financial and economic sanctions imposed on Russian entities and individuals in line with applicable sanctions.

The Company continues to assess the potential broader impacts of the Russian invasion of Ukraine and related sanctions on the global economy, financial markets, and specific industry and economic sectors, including potential recessionary and inflationary pressures. There are also implications for global energy markets, supply chains and potential disruption to global financial infrastructures such as SWIFT.

The Company continues to support employees who have been affected by the Ukraine-Russia crisis.

For further details, refer to Note 40.

Departure of the UK from the EU and the Firm's response

The UK's departure from the European Union ("EU"), commonly referred to as "Brexit," occurred on January 31, 2020, and, following a transition period, was completed on December 31, 2020.

As part of the Firmwide Brexit Implementation program, J.P. Morgan AG ("JPMAG")⁽¹⁾ became the client-facing entity for clients in the European Economic Area ("EEA") from 1 January 2021, not only retaining counterparty credit risk and credit valuation adjustments, but also managing the market risk position for selected desks.

A key focus of the program was to ensure continuity of service to the Firm's EEA clients for EU passported regulated activity. This has been completed in 2021, with the implementation of the final stages of the Firm Brexit target operating model for all in-scope businesses and functions, including the transfer of in-scope risk management positions to the EU subsidiary, the migration of client activities and through the completion of employee relocations to the EEA.

The EU branches of JPMS Plc are in the process of being closed, with the closure for the Milan, Madrid and Stockholm branches completed in 2021. For further details, refer to Note 16.

COVID-19

The Firm has taken action to protect and support its employees during the Coronavirus Disease 2019 ("COVID-19") pandemic, including continued implementation of health and safety protocols. For more detail on Firmwide measures refer to risk management (pages 11 - 49).

The Company does not currently anticipate a significant reduction in its capital and liquidity positions over the coming year as a result of COVID-19.

(1) Following a merger of J.P. Morgan Bank Luxembourg S.A. ("JPMBL"), J.P. Morgan Bank Ireland ("JPMBI") and J.P. Morgan AG ("JPMAG") on 22 January 2022, a new entity was created J.P. Morgan SE ("JPMSE").

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Section 172(1) Companies Act 2006 Statement

The directors of the Company are required under the Companies Act 2006 to act in the way they consider, in good faith, would be most likely to promote the success of the Company for the benefit of its members as a whole. In doing so, the directors must consider certain factors in their decision-making and then make a statement about how they have considered those factors.

The factors the directors must consider are:

- The likely consequences of a decision in the long term
- The interests of the Company's employees
- The need to foster the Company's business relationships with suppliers, customers and others
- The impact of the Company's operations on the community and the environment
- The desirability of the Company maintaining a reputation for high standards of business conduct
- The need to act fairly as between members of the Company

While not every factor may be relevant to every decision the Board makes, considering the Company's stakeholders is a fundamental aspect of the Board's decision-making and the Board recognises the importance of considering the potential impacts of its decisions on its relationships with stakeholders in delivering the Company's strategy in line with the wider JPMorgan Chase How We Do Business principles.

Supporting the Board's commitment to stakeholders

New directors joining the Board are provided with an induction program that includes training on directors' duties and, with regard to s.172(1), the factors that must be taken into consideration. Directors receive periodic refresher training on directors' duties throughout their tenure. The induction program and continuing Board education sessions provide the directors with an understanding of the Company's business, risks, financial performance and regulatory landscape and help to provide them with a solid foundation for making decisions with stakeholders in mind.

The Company has a schedule of Matters Reserved for the Board which makes sure that certain material and/or strategic decisions can only be made by the Board and may not be delegated to executive committees or management. Combined with a robust agenda-setting process, this schedule helps the Company to make sure that decisions are made at the right level and that stakeholder impacts are particularly considered in the most significant decisions.

The Board is also supported in its work by four Board Committees, whose responsibilities are delegated by the Board and are described further on pages 56 - 57, and by the Europe, Middle East and Africa ("EMEA") Management Committee ("EMC").

Relationships with stakeholders

The Company has the benefit of belonging to a large international group. The Board of the Company's ultimate parent company, JPMorgan Chase & Co. ("JPMC"), meets periodically throughout the year with the Group's shareholders, employees and regulators, and with non-governmental organisations, and other persons interested in the Group's strategy, business practices, governance, culture and performance. To the extent that feedback from any such engagement is relevant to the Company and/or its relationship with stakeholders, it is provided to the Board through the internal communication channel relevant to the subject matter.

Understanding the interests of stakeholders in relation to how the Group is run is crucial to the Group's and, consequently, the Board's ability to take proper account of stakeholder impacts and interests in decision-making.

Further information on the Company's engagement with its stakeholders is included in the Statement of Corporate Governance Arrangements on pages 63 - 65 and is incorporated by reference into this statement.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Section 172(1) Companies Act 2006 Statement (continued)

Decision-making

In making its decisions, the Board discusses relevant information and makes enquiries of relevant executive management and control functions, including in relation to the factors set out in s.172(1). In 2021, the Board has made decisions in respect of a wide variety of topics and the following are examples of how the Board considers the s.172(1) factors in its deliberations:

- The Board Risk Committee and the Board considered the annual Internal Capital Adequacy Assessment Process ("ICAAP"); such consideration included briefing sessions for directors on the ICAAP. In determining whether to approve the ICAAP document for submission to the Prudential Regulatory Authority (the "PRA"), the Board took into account the PRA's qualitative feedback on the ICAAP and, considering the long term-prospects of the Company, determined that the ICAAP document indicated that the Company had sufficient resources to meet its regulatory capital and minimum requirements for own funds and eligible liabilities ("MREL").
- The Board decided to introduce a Carbon Reduction Plan for the Company; in doing so, the Board considered the impact of the decision on the environment and the long-term prospects of the Company, determining that it was in the interests of both factors to proceed with the creation of the plan.
- The Board made certain decisions in relation to resolution and recovery, including the approval of updated resolution and recovery plans. These updated plans included a revised governance playbook setting out how the Company would make key decisions in the event of a recovery or resolution scenario arising. In approving the plans, the Board considered the impact of a recovery or resolution scenario (and the decisions it would need to take in those circumstances) on the long-term prospects of the Company.
- During 2021, the Board continued to receive focused monthly updates in relation to the Company's response to the COVID-19 pandemic. These sessions enabled the Board to receive information on how the Company was engaging with its clients in the unusual trading environment, how the impacts on employees (who were largely working from home) were being addressed and on the Company's engagement with its regulators in relation to the steps it was taking ensure continuity of operations. These briefing sessions enabled the Board to approach all its decision-making in the light of the continually changing operating environment and the impact that had on the Company's stakeholders.

The Board holds an annual Strategy Day, which is timed to fall after the firmwide Operating Committee's strategy session. This enables the Board to consider how the firmwide and line of business strategies will be implemented at the Company's level and provides the opportunity for the Board to focus on matters relating to the s.172(1) factors in setting the Company's strategy for the year. In 2021, the Strategy Day included presentations and discussions on the following topics which allowed the Board to take into consideration certain of the s.172(1) factors in setting the Company's strategy:

- COVID-19. The Board discussed the ongoing impact of, and strategies related to the COVID-19 pandemic, including plans for workers returning to the office, developments in mental health and well-being provision and the continued roll-out of technology advances. This helped the Board to determine the Company's position during the ongoing pandemic, particularly in relation to approaching pandemic-driven decisions flexibly in the context of continually changing circumstances.
- Diversity, Equity and Inclusion. The Board discussed developments to the firmwide strategy on diversity, equity and inclusion, including a focus on listening to employees and measuring and monitoring progress. In particular, the Company adopted UK Black Growth Objectives during 2021, which added an extra dimension to the way the Company considers diversity and inclusion in the UK.
- Environmental, Social and Governance ("ESG") strategies. The Board discussed the Company's and the wider group's strategies in relation to ESG matters, including the internal programs and governance which have been established to implement initiatives and regulatory requirements in these areas. In doing so, the Board considered the impact of the Company's operations on the environment, the community and its staff, as well as its relationships with its customers and suppliers; the Board considered that ESG matters do, and will continue to, touch all aspects of the Company's operations and considered that the programs and strategies that the Company has introduced will enable the Board to reflect on many of the factors set out in s.172 in a more structured way.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Regulatory developments

Trading and clearing legislation

Policymakers in the UK continue to implement an extensive program of regulatory enhancement relating to financial services, several key elements of which are discussed below.

UK policymakers have recently proposed changes to the Markets in Financial Instruments Directive ("MiFID II"). MiFID II, introduced in 2018, requires the trading of shares and certain standardized OTC derivatives to take place on trading venues and also significantly enhanced requirements for pre and post-trade transparency, transaction reporting and investor protection, and introduced a position limits and reporting regime for commodities.

Her Majesty's Treasury ("HMT") and the FCA have recently undertaken a post-Brexit review of MiFID II, as adopted in the UK. In July 2021, HMT published its 'Wholesale Markets Review' consultation, which proposed broad changes covering most parts of the MiFID II legislation. The final policy statement setting out the future direction of travel was published by HMT in March 2022. The Company will be impacted by the changes in its capacity as an investment firm and systematic internaliser but the precise impact will not be known until a later stage, once the FCA consultations are released and finalised. These FCA consultations are expected in summer 2022.

With regards to the settlement regime, the UK announced in July 2020 that it would not be adopting the CSDR settlement discipline regime, which includes both the buy-in regime and the penalty regime.

The UK has also proposed various reforms for the derivatives market, including proposed amendments to clearing obligations under the European Markets and Infrastructure Regulation ("EMIR") and to derivatives trading obligations under the Markets in Financial Instruments Regulation ("MiFIR") to reflect the industry's broader transition away from IBORs to the use of risk-free reference rates.

Loss absorbency requirements

The UK minimum requirement for own funds and eligible liabilities ("MREL"), which is intended to facilitate the resolution or recapitalization of a financial institution without causing financial instability and without recourse to public funds, is defined in the Bank of England (BoE) Statement of Policy on its Approach to Setting MREL (MREL SoP). The BoE's June 2018 updates to its MREL SoP included requirements on the internal MREL resources to be held by UK material subsidiaries of overseas groups which came into effect, on a transitional basis, from 1 January 2019, with full compliance required by 1 January 2022. Capital Requirements Regulation MREL rules, which apply in parallel to the BoE requirements, were on-shored into UK law by The Capital Requirements (Amendment) (EU Exit) Regulations 2019. These on-shored requirements apply at the level of the consolidated UK parent entity.

Following BoE communication of firm-specific MREL targets in 2018, the Company replaced a portion of its existing senior funding notes with Tier 2 qualifying subordinated notes in order to ensure compliance with these requirements. The Company continues to meet applicable UK MREL requirements.⁽¹⁾

Bank of England resolvability requirements

The Company's implementation of UK resolvability requirements to meet the provisions of the BoE's Resolvability Assessment Framework ("RAF") was completed at the end of 2021, ahead of the 1 January 2022 compliance date.

⁽¹⁾ The BoE's Statement of Policy on its Approach to Setting MREL was further updated in December 2021, however, these amendments did not include material changes to the Internal MREL rules applicable to the Company.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Regulatory developments (continued)

Interbank offered rate ("IBOR") Transition

The Financial Stability Board ("FSB") and the Financial Stability Oversight Council ("FSOC") have observed that the secular decline in interbank short-term funding poses structural risks for unsecured benchmark interest rates such as Interbank Offered Rates ("IBORs"), and therefore regulators and market participants in various jurisdictions have been working to identify alternative reference rates that are compliant with the International Organisation of Securities Commission's standards for transaction-based benchmarks.

In 2021, the FCA consulted on using its powers as per Articles 23A and 23D of UK Benchmarks Regulation ("UK BMR") and confirmed that the FCA will require the benchmark administrator to publish 1, 3, and 6 month GBP and Japanese yen LIBOR settings under a 'synthetic' methodology in 2022 to be used in legacy contracts only.

In the US, UK, EU, Japan and Switzerland the Alternate Reference Rate Committee ("ARRC"), the Working Group on Sterling Risk-Free Reference Rates ("Sterling RFR WG"), the Working Group on Euro Risk-Free Rates ("Euro RFR WG"), the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks and the National Working Group on Swiss Franc Reference Rates respectively, groups composed of market and official sector participants, have identified the below rates as the recommended alternative benchmark rates.

- Secured Overnight Financing Rate ("SOFR")
- Sterling Overnight Index Average Rate ("SONIA")
- Euro Short-Term Rate ("€STR")
- Tokyo Overnight Average Rate ("TONA")
- Swiss Average Rate Overnight ("SARON")

For details on the Firmwide IBOR transition program please refer to Market Risk Page 39.

Standardised Approach to Counterparty Credit Risk

This Standardised Approach to Counterparty Credit Risk (SA-CCR) applies from January 2022 to OTC derivatives, exchange-traded derivatives and long settlement transactions. SA-CCR is designed to address weaknesses in both the current exposure method ("CEM"), or mark-to-market method ("MTM"), as it is known under the Capital Requirements Regulation ("CRR") and standardised method. The salient features in SA-CCR are:

- Improved risk sensitivity of the capital framework through identification and capitalisation of all significant risk factors for each position in the portfolio;
- Greater risk-identification through the use of supervisory correlations within risk categories, but no reduction across risk categories;
- Improved handling of margined transactions by differentiating the exposure mitigation effects of variation and initial margin, and greater recognition of the benefits of central clearing; and
- The overall exposure in SA-CCR is multiplied by an 'alpha' factor of 1.4

Post implementation of SA-CCR, the Company remains adequately capitalised.

Net Stable Funding Ratio

The UK Net Stable Funding Ratio ("NSFR") rule went live on 1 January 2022. The NSFR rule is intended to help ensure that firms maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities and focuses on protecting against liquidity risks over a longer horizon than the Liquidity Coverage Ratio ("LCR") metric. As of 1 January 2022, the Company was compliant with the NSFR rule by maintaining an NSFR of at least 100% on an ongoing basis.

Climate Risk

The Company is subject to supervisory expectations published by the PRA, for management of financial risks arising from climate change including bank strategy, governance, risk management, scenario analysis, risk reporting and disclosure. Refer to Risk management section on pages 47 - 48 for further details.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Regulatory developments (continued)

UK Capital Regime

On 31 January 2020, the UK left the EU and entered a transition period until 31 December 2020 during which EU law continued to apply. CRD V was transposed by 28 December 2020 and the CRD V requirements which applied during the transition period have been implemented in the UK. The EU prudential framework which applied on 31 December 2020 will remain applicable in the UK after the transition period (retained EU law) and the framework will be amended to ensure that it continues to operate as intended post-exit.

The EU (Withdrawal) Act 2018 (EUWA) functions to retain EU law and legislation implementing EU law and provides powers to amend it as appropriate for the UK legal environment (these amendments are referred to "onshoring"). To this end, Parliament passed a number of Statutory Instruments amending retained EU financial services legislation. The UK regulators also made EU Exit Instruments to amend their rules and relevant Binding Technical Standards (BTS), using powers delegated by the EUWA. Most of these instruments came into effect at the end of the transition period.

The onshoring process means that there will be some areas where the requirements on institutions will change post-exit. To help firms adapt to their new requirements, HMT has given UK financial regulators the power to make transitional provisions to financial services legislation for a temporary period (this is known as the Temporary Transitional Power (TTP)). The PRA intends to use the TTP to provide broad transitional relief, with some exceptions, for 15 months after the end of the transition period, until 31 March 2022. As a result of the TTP, the immediate impact of the onshoring of EU law on the Company is limited. As outlined in the Brexit strategy section 3.3.2, HM Treasury also announced equivalence decisions across a number of financial services areas in respect of EEA states that will allow UK entities to continue to, for example, apply preferential risk weights to exposures to certain EEA counterparties.

In October 2020, the Financial Services Bill ("FS Bill") was introduced in Parliament. The FS Bill will allow the remaining CRR 2 provisions, the investment firm regime and the Basel revisions agreed between 2017 and 2019 (Basel 3.1 standards) to be incorporated into the UK prudential framework. In November 2020, UK authorities communicated a target implementation date of 1 January 2022 for the remaining CRR 2 provisions and the investment firm regime and confirmed that the UK remains committed to the full, timely and consistent implementation of the Basel 3.1 standards in line with the Basel implementation date (1 January 2023). In February 2021, the PRA published its approach to adoption of the CRR 2 requirements, which incorporated several targeted changes in the UK's adoption.

Risk management

Risk is an inherent part of the Company's business activities. The Company's overall objective is to manage its businesses, and the associated risks, in a manner that balances serving the interests of its clients, customers and investors and protects the safety and soundness of the Company.

JPMorgan Chase, and the Company believe that effective risk management requires, among other things:

- Acceptance of responsibility, including identification and escalation of risks by all individuals within the Company.
- Ownership of risk identification, assessment, data and management within each Line of Business ("LOB") and Corporate function; and
- Firmwide structures for risk governance.

JPMorgan Chase's risk governance structure is based on the principle that each LOB is responsible for managing the risk inherent in its business, albeit with appropriate corporate oversight. Each LOB risk committee is responsible for decisions regarding the business risk strategy, policies (as appropriate) and controls. Therefore, each LOB within the Company forms part of the Firmwide risk governance structure.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

For details on JPMorgan Chase and the Company's risk governance framework, please refer to the specific section in the Statement of Corporate Governance Arrangements.

All disclosures in the Risk management section (pages 11 - 49) are unaudited unless otherwise stated.

The following sections outline the key risks that are inherent in the Company's business activities.

A detailed description of the policies and processes adopted by the Firm may be found within the JPMorgan Chase 2021 Annual Report on Form 10-K. The report is available at <https://jpmorganchaseco.gcs-web.com/financial-information/sec-filings>.

Capital risk (audited)

Capital risk is the risk the Company has an insufficient level or composition of capital to support the Company's business activities and associated risks during both normal economic environments and under stressed conditions.

A strong capital position is essential to the Company's business strategy and competitive position. Maintaining a strong balance sheet to manage through economic volatility is considered a strategic imperative of the Firm's Board of Directors, CEO and Operating Committee. The Firm and Company's capital management strategy focuses on maintaining long-term stability to enable the Firm to build and invest in market-leading businesses, even in a highly stressed environment. Prior to making any decisions on future business activities, senior management considers the implications on the Company's capital.

Key capital risks include the risk of not meeting capital requirements, including the impact of adverse changes in FX rates in capital ratios.

Accordingly, the capital management framework is designed to ensure that the Company is adequately capitalised at all times primarily in relation to:

- Minimum risk-based regulatory capital requirements (Pillar 1 capital as per UK Capital Requirements Regulation (CRR) Pillar 2A prescribed by the PRA and FCA and relevant buffers).
- Assumed minimum leverage requirements (as per UK CRR).
- The risks faced by the entity, through regular comparisons of regulatory and internal capital requirement.
- Changes in FX rates that may impact the capital ratios of the Company due to mismatches between the currency in which Risk Weighted Assets ("RWAs") are denominated and the equity is being held (U.S. dollar).
- Senior management's risk appetite expressed, for example, through the application of an internal capital buffer and preferred minimum capital ratios above those prescribed in regulation.

The EMEA Capital Committee, which has senior business, risk and control function representation, receives monthly updates of the Company's capital positions and projections and has oversight on decisions related to capital usage and capital strategy. The framework used to manage capital within the Company is based around a regular cycle of point-in-time capital calculations and reporting, supplemented by forward-looking projections and stress-testing, with corrective action taken as and when required to maintain an appropriate level of capitalisation. Each part of the process is subject to rigorous control, including capital adequacy reporting with weekly and quarterly frequency to ensure the Company maintains appropriate oversight in line with the Capital framework. Escalation of issues is driven by a business as usual ("BAU") framework of specific triggers, set in terms of capital and leverage ratios, movements in those ratios and other measures.

In addition to the BAU capital monitoring framework, through the quarterly Internal Capital Adequacy Assessment Process ("ICAAP"), the Company ensures that it is adequately capitalised in relation to its risk profile and appetite, not only as at the ICAAP date, but through the economic cycle and under a range of severe but plausible stress scenarios. The quarterly ICAAP results are reviewed by the EMEA Capital Committee and annually, the ICAAP is reviewed and approved by the Board of Directors and is submitted to the PRA. In addition, the annual 'reverse stress testing' exercise is used to identify potential, extreme scenarios which might threaten the viability of the Company's business model, so that any required mitigation can be put in place.

COVID-19

The Company has been impacted by recent market events as a result of COVID-19, but remains well capitalised.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Capital risk (audited) (continued)

FX Risk to Capital Ratio

Changes in FX rates may impact the capital ratios of the Company due to mismatches between the currency in which Risk Weighted Assets ("RWAs") are denominated and the functional currency (U.S. dollar). The Non-U.S. dollar FX risk to capital ratio is managed through the capital stress testing program which tests the Company's financial resilience in a range of severe economic and market conditions.

The composition of the Company's capital is as follows. All tiers of capital are shown net of applicable deductions.

31 December	2021	2020
	\$'000	\$'000
Common Equity Tier 1 (Equity share capital and reserves) (unaudited)	44,422,470	45,182,383
Tier 2 (Subordinated loan) (note 28)	12,000,000	12,000,000
Total capital resources	56,422,470	57,182,383
Pillar 1 capital requirement (unaudited)	18,452,297	19,347,596
Excess of total capital resources over Pillar 1 capital requirements (unaudited)	37,970,173	37,834,787
Common Equity Tier 1 ratio ("CET 1") (unaudited)	19.3%	18.7%
Pillar 1 capital ratio (unaudited)	24.5%	23.7%

As of 31 December 2021 and 2020, the Company was adequately capitalised and met all external capital requirements. Capital resources utilised to calculate capital ratios are inclusive of current year profits. Additionally, the operational risk requirement included within the Pillar 1 Capital Requirement has been recalculated to incorporate current year net income.

Company information is included as part of the Pillar 3 disclosures and is made available on the Firm's website (<https://jpmorganchaseco.gcs-web.com/financial-information/basel-pillar-3-us-lcr-disclosures>) in accordance with UK CRR. These are published on an annual basis or more frequently where the Company has assessed a further need to do so under the guidelines set out by the Prudential Regulation Authority and the Bank of England. These disclosures are not subject to external audit.

Risk management

Credit risk (audited)

Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer. Credit risk management monitors, measures and manages credit risk throughout the Firm and defines credit risk policies and procedures. The credit risk function reports to the Firm's Chief Risk Officer ("CRO").

COVID-19 Pandemic

In 2021, the credit environment improved following the broad-based deterioration in 2020 that resulted from the impacts of the Covid-19 pandemic.

The Firm's credit risk management governance includes the following activities:

- Establishing a credit risk policy framework
- Monitoring, measuring and managing credit risk across all portfolio segments, including transaction and exposure approval
- Setting industry and geographic concentration limits, as appropriate, and establishing underwriting guidelines
- Assigning and managing credit authorities in connection with the approval of credit exposure
- Managing criticised exposures and delinquent loans
- Estimating credit losses and ensuring appropriate credit risk-based capital management

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

The Company is exposed to credit risk through its underwriting, lending, market-making and hedging activities with and for clients and counterparties, as well as through its operating services activities (such as clearing activities), securities financing activities, investment securities portfolio, and cash internally swept to other Firm entities. Whilst the Firm has established a comprehensive Firmwide risk policy framework, this is supplemented (as required), by legal entity-specific risk policies. As such, the Company's Credit Risk Management policy supplements the Firmwide risk policy framework and is approved by the Company's Board of directors.

Risk identification and measurement

The Credit Risk Management function monitors, measures and manages credit risk across the Firm's businesses. To measure credit risk, the Firm employs several methodologies for estimating the likelihood of obligor or counterparty default. Methodologies for measuring credit risk vary depending on several factors, including type of asset, risk measurement parameters, and risk management and collection processes. Credit risk measurement is based on the probability of default of an obligor or counterparty, the loss severity given a default event and the exposure at default.

Stress testing

Stress testing is important in measuring and managing credit risk in the Firm and Company's credit portfolio. The process assesses the potential impact of alternative economic and business scenarios on estimated credit losses for the Firm and the Company. Economic scenarios and the underlying parameters are defined centrally, articulated in terms of macroeconomic factors and applied across the businesses. The stress test results may indicate credit migration, changes in delinquency trends and potential losses in the credit portfolio. In addition to the periodic stress testing processes, management also considers additional stresses outside these scenarios, including industry and country specific stress scenarios, as necessary. The Firm uses stress testing to inform decisions on setting risk appetite both at a Company and LOB level, as well as to assess the impact of stress on individual counterparties.

Risk monitoring and management

The Company is subject to the policies and practices developed by the Firm. The policy framework establishes credit approval authorities, concentration limits, risk-rating methodologies, portfolio review parameters and guidelines for management of distressed exposures. In addition, certain models, assumptions and inputs used in evaluating and monitoring credit risk are independently validated by groups that are separate from the LOB.

Credit risk is monitored regularly at an aggregate portfolio, industry, and individual client and counterparty level with established concentration limits that are reviewed and revised as deemed appropriate by management, typically on an annual basis. Industry and counterparty limits, as measured in terms of exposure and economic risk appetite, are subject to stress-based loss constraints. In addition, wrong-way risk (the risk that exposure to a counterparty is positively correlated with the impact of a default by the same counterparty, which could cause exposure to increase at the same time as the counterparty's capacity to meet its obligations is decreasing) is actively monitored as this risk could result in greater exposure at default compared with a transaction with another counterparty that does not have this risk.

Management of the Firm's credit risk exposure is accomplished through a number of means, including:

- Loan underwriting and credit approval process
- Loan syndications and participations
- Loan sales and securitisations
- Credit derivatives
- Master netting agreements
- Collateral and other risk-reduction techniques

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit Portfolio Group ("CPG")

CPG in the Markets division of the CIB is responsible for the strategic risk management of certain risks of the Firm, primarily on behalf of CIB, including:

- Retained credit risk from traditional credit products ("TCP") such as loans and commitments (originated by Banking)
- Counterparty credit risk ("CVA") and certain funding risks ("FVA") associated with client derivative trades (mainly originated by CIB Markets businesses)
- Discounting risk from client-specific Credit Support Annex ("CSA") terms in collateralised derivative transactions

CPG is also responsible for centralised governance and oversight for collateral on behalf of the CIB derivatives franchise; and optimising the sourcing, posting and pricing of variation and initial margin in partnership with the client facing businesses. Fully funded OTC instruments captured in Note 26 are not in scope for CPG risk management.

Risk reporting

To enable monitoring of credit risk and effective decision making by the Company, aggregate credit exposure, concentration levels and risk profile changes are reported regularly to senior members of Credit Risk Management. Detailed portfolio reporting of industry, clients, counterparties and customers, product and geographic concentrations are prepared, and the appropriateness of the allowance for expected credit losses is reviewed by senior management at least on a quarterly basis.

Expected credit loss measurement

Approach to measuring expected credit losses

The Company estimates credit impairment through an allowance for expected credit losses ("ECL"). ECL are recognised for financial assets that are measured at amortised cost or at fair value through other comprehensive income ("FVOCI") and for specified lending-related commitments such as loan commitments and financial guarantee contracts. The measurement of ECL must reflect

- An unbiased and probability weighted amount that is determined by evaluating a range of possible outcomes
- The time value of money.
- Reasonable and supportable information about past events, current (economic) conditions, and forecasts of future economic conditions

The measurement of ECL also reflects how the Company manages the financial instruments for credit risk purposes such as Traditional Credit Products ("TCP"), and Non-Traditional Credit Products ("Non-TCP"). Instruments in scope of TCP include wholesale loans and lending-related commitments from extensions of credit to borrowers (including intercompany and affiliated entities). Non-TCP include but are not limited to, other third-party and intercompany debt instruments, margin loans, fee receivables and intercompany receivables (such as cash and deposits).

Enhancement in modelling methodology

In 2020, the Company enhanced its statistical model methodology used for collective assessment to better estimate expected credit losses. Key model enhancements included:

- Expansion of forecasting during the reasonable and supportable period from using three forward looking scenarios (central, adverse and upside) to five forward looking scenarios (central, relative upside, extreme upside, relative adverse and extreme adverse).
- Introduction of large loan uncertainty ("LLU"), captures the variation in loan sizes across the portfolio by taking into consideration the risk of large exposures defaulting due to the non homogenous nature of the portfolio.
- The estimated impact of COVID-19 is incorporated into ECL through MEVs and forward-looking scenarios.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Approach to measuring expected credit losses (continued)

The following tables set out the gross carrying amount (before ECL) of the Company's financial assets which are measured at amortised cost or FVOCI by the respective TCP and Non-TCP categories as of 31 December 2021 and 31 December 2020 respectively.

At 31 December 2021					
Gross carrying amount					
	TCP			Non-TCP	
	\$'000	\$'000	\$'000	\$'000	\$'000
Assets	Amortised Cost	FVOCI	Total	Amortised Cost	Total
Cash and balances at central banks	—	—	—	13,558,101	13,558,101
Loans and advances to banks	—	—	—	7,853,765	7,853,765
Loans and advances to customers	377,474	427,659	805,133	—	805,133
Securities purchased under agreements to resell	—	—	—	50,980,338	50,980,338
Debtors	—	—	—	113,146,384	113,146,384
Accrued income	—	—	—	699,590	699,590
Total financial assets measured at Amortised cost and FVOCI	377,474	427,659	805,133	186,238,178	187,043,311

At 31 December 2020					
Gross carrying amount					
	TCP			Non-TCP	
	\$'000	\$'000	\$'000	\$'000	\$'000
Assets	Amortised Cost	FVOCI	Total	Amortised Cost	Total
Cash and balances at central banks	—	—	—	13,595,722	13,595,722
Loans and advances to banks	—	—	—	8,152,288	8,152,288
Loans and advances to customers	468,019	570,235	1,038,254	—	1,038,254
Securities purchased under agreements to resell	—	—	—	48,699,654	48,699,654
Debtors	—	—	—	115,763,212	115,763,212
Accrued income	—	—	—	664,472	664,472
Total financial assets measured at Amortised cost and FVOCI	468,019	570,235	1,038,254	186,875,348	187,913,602

ECL on off-balance sheet lending-related commitments, which are categorised as TCP, are not included in the table above. These lending-related commitments are disclosed in Note 32.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Impact of staging on measuring expected credit losses

ECL is measured using a three-stage model based on changes in credit quality of the financial instrument since it was initially recognised ("initial recognition"):

- Stage 1 - performing financial instruments that have not had a significant increase in credit risk since initial recognition.
- Stage 2 - performing financial instruments that have experienced a significant increase in credit risk.
- Stage 3 - non-performing financial instruments that have been determined to be credit-impaired.

Default and credit-impairment (Stage 3)

Financial instruments are included in Stage 3 when there is objective evidence of impairment at the reporting date. For Stage 3 instruments, ECL is calculated considering the probability of default over the remaining life of each instrument ("Lifetime ECL") on an individual asset basis and interest revenue is calculated on the net carrying amount (that is, net of the allowance for credit losses). All financial assets, regardless of their category as TCP or Non-TCP, are considered to be credit-impaired and are included in Stage 3 when one or more of the following events that have a detrimental impact on the estimated future cash flows of that financial asset has occurred:

- Significant financial difficulty of the issuer or the borrower;
- A default or past due event;
- The Company has granted a concession to the borrower for economic or contractual reasons relating to the borrower's financial difficulty;
- It has become probable the borrower will enter bankruptcy or other financial reorganisation;
- An active market for that financial asset no longer exists because of the borrower's financial difficulties; or
- A financial asset is purchased or originated at a deep discount that reflects a credit loss has been incurred.

Generally, a Stage 3 financial asset is considered to no longer be impaired when the borrower has made payments for a minimum of six months and there is other objective evidence of credit improvement. However, for assets that were considered to be Stage 3 as a result of a restructuring where the borrower experiencing difficulty was granted a financial concession, there is no cure period and the asset will remain in Stage 3.

Significant increase in credit risk (Stage 2)

Financial instruments that have experienced a significant increase in credit risk ("SICR") since initial recognition for which there is no objective evidence of impairment are included in Stage 2. For Stage 2 instruments, ECL is calculated considering the probability of default over the remaining life of the instrument on a collective basis and interest revenue is calculated on the gross carrying amount of the asset (that is, without deduction for the credit loss allowance).

The Company assesses for evidence of a SICR by considering whether there has been a change in the risk of a default occurring since the financial instrument was initially recognised.

The Company considers a financial instrument to have experienced a SICR when any of the following quantitative or qualitative criteria have been met:

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Significant increase in credit risk (Stage 2) (continued)

Quantitative criteria

The Company determines whether the probability of a default ("PD") occurring has changed between a financial instrument's initial recognition and the reporting date. If the change in PD exceeds certain relative and absolute thresholds, the instrument has experienced a SICR. The assessment of the PD takes into account reasonable and supportable information, including information about past events, current and future economic conditions.

Qualitative criteria

The Company monitors borrowers that may become impaired by including them on its watch list. Obligors that are on the watch list are considered to have experienced a SICR. The Company also monitors changes in internal credit risk ratings (relative to the credit rating on initial recognition) and delinquency triggers to determine if a borrower has experienced a SICR.

The Company's TCP portfolio is mostly comprised of large, international, wholesale borrowers. For these borrowers, short-term delinquencies alone are not considered to be a meaningful credit quality indicator as the Company's experience has shown that other internal credit quality indicators generally identifies increases in credit risk well before delinquency. As such, the Company has determined that using the quantitative and qualitative criteria described above are most appropriate for capturing SICR for TCP.

Financial instruments that are in Stage 2 are moved to Stage 1 as described below in the period that the quantitative and qualitative criteria for a SICR no longer exist.

The approach for determining whether there has been a SICR for Non-TCP portfolios depends on the type of instrument. The Company presumes non-TCP financial assets that are 30 days past due have experienced a SICR and are included in Stage 2. Inter-company loans and receivables to material legal entities covered by the Firm's resolution and recovery plans are considered to be investment grade and therefore these are included in Stage 1 with no SICR. Finally, the remainder of the Company's Non-TCP are mostly short-term and generally no SICR has arisen prior to the maturity of that instrument and therefore the ECL impacted was anticipated to be immaterial.

Unimpaired and without significant increase in credit risk (Stage 1)

Financial instruments that have not had a SICR since initial recognition are included in Stage 1. For Stage 1 instruments, ECL is calculated by considering the probability of default within 12 months after the reporting date on a collective basis and interest revenue is calculated on the gross carrying amount of the asset (that is, without deduction for the credit loss allowance).

Sensitivity analysis of weighting

The Company's allowance for credit losses is sensitive to numerous factors, which may differ depending on the portfolio. Changes in economic conditions or in the Company's assumptions and judgements could affect its estimate of expected credit losses in the portfolio at the balance sheet date.

The Company considers a variety of factors and inputs in estimating the allowance for credit losses. It is difficult to estimate how alternative judgements in specific factors might affect the overall allowance for credit losses due to the idiosyncratic nature of the factors and inputs involved.

To illustrate the potential magnitude of an alternative judgement, the Company estimates that adjusting the extreme downside scenario weighting to 100% as of December 31, 2021 could imply an increase to modelled ECL of approximately \$49.3 million (2020: \$67.3 million).

The purpose of this sensitivity analysis is to provide an indication of the isolated impact of a hypothetical alternative judgement on modelled ECL and is not intended to imply management's expectation of future deterioration of the economy nor any specific risk factors.

Sensitivity analysis of ECL due to staging

The impact of staging on the Company's ECL recognised on balance sheet as at 31 December 2021, by comparing the allowance if all performing financial assets were in Stage 1 or if all such assets were in Stage 2 to the actual ECL recorded on these assets was assessed as immaterial.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

ECL measurement for TCP Portfolios

Key Inputs

ECL for Stage 1 and Stage 2 assets is determined using a collective assessment model that estimates losses expected on the portfolio from possible defaults in the next 12 months or lifetime depending on whether the instrument is included in stage 1 or 2. The 12-month ECL are calculated by multiplying the 12-month Probability of Default, Exposure at Default and Loss Given Default. Lifetime ECL are calculated using the lifetime PD instead. These inputs are collectively known as modelled estimate and are described in further detail below:

Probability of Default ("PD"): The PD model estimates the probability of a borrower defaulting given certain macroeconomic scenarios and the probability of a borrower moving from one risk rating to another during a reasonable and supportable period. The 12-month and lifetime PDs represent the probability of default occurring over the next 12 months and remaining maturity of the instrument respectively. The PD is determined at a facility level.

Country specific information is applied to risk ratings, as appropriate in accordance with internal risk rating guidelines. Beyond the reasonable and supportable period, the probability of default and likelihood of downgrade are based on long run historical averages with no macroeconomic forecasting element. Internal historical default data is used for all periods, both during the reasonable and supportable ("R&S") period and beyond.

Exposure at Default ("EAD"): Exposure at Default represents the gross exposure of the Firm upon the Obligor's default and is characterised, as follows:

- Term Loans - EAD is 100% of exposure, net of amortisation
- Revolving commitments - EAD is a model-based estimate that considers the expectation of future utilisation at a facility level in the case of a default under a given macroeconomic environment. After the R&S forecast period, a long run EAD is determined based on the facility's risk characteristics.
- All other unfunded committed facilities - EAD is determined judgmentally and where appropriate, empirically, based on the type of credit facility, line of business, underlying risk characteristics and utilisation.

Loss Given Default ("LGD"): LGD, also known as loss severity, represents the amount of loss, expressed as a percentage, in the event the facility defaults under a given forecasted macroeconomic environment during the reasonable and supportable period. Beyond the reasonable and supportable period long run historical average LGD is used based on the loan's risk characteristics (e.g., secured type, region, line of business). Country specific considerations are also applied to the LGD inputs, as appropriate. Similar to PD, internal historical default data is used for all periods, both during the R&S period and beyond.

The modelled estimate is subsequently adjusted for large loan uncertainty (LLU) which captures the variation in losses attributable to variability in loan sizes across the wholesale portfolio for Loans and lending related commitments due to the non-homogenous nature of the portfolio as described in Enhancement in modelling methodology on page 15.

Forward-looking information

ECL estimates are derived from the Company's historical experience and future forecasted economic conditions. In order to incorporate forward-looking information into the ECL calculation, the Company develops forecasted economic scenarios. The Company develops five forward looking scenarios (base, relative upside, extreme upside, relative downside and extreme downside cases) during the year. Each of these scenarios contain a set of Macroeconomic Variables ("MEVs") that reflect forward-looking economic and financial conditions. MEVs include, but are not limited to FX rates, inflation and GDP per country or country block (group of countries that have similar economic circumstances). MEVs for each scenario are projected over a reasonable and supportable forecast period of two years. After the forecast period, the losses revert to historical averages over a one-year transition period.

On a quarterly basis, the five economic scenarios are updated and probability weighted. The Company uses judgement to develop the scenarios and assign probability weightings. The most likely economic scenario in management's view is the base case which would generally be expected to be weighted more heavily than the other two scenarios.

The PD, LGD and EAD models are designed to forecast the credit quality and performance of a TCP portfolio based on industry, geography, rating and size of obligors, among other attributes of the portfolio. PD, LGD and EAD models are calibrated based on historical MEVs and use forecasted macroeconomic scenarios for projecting PD, LGD and EAD values.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

ECL measurement for TCP Portfolios (continued)

ECL calculation

The Company uses the forward-looking PD, LGD, and EAD values for each of the scenarios to produce the scenario credit losses ("SCLs"). The modelled ECL estimate is a probability-weighted calculation of the five SCLs discounted using the original effective interest rate or an approximation thereof. The weightings are periodically reviewed and approved centrally by a risk governance committee within the Firm.

As part of the normal review process, the central ECL calculation is subject to further adjustment to take into consideration the requirements of the Company. As the centrally estimated ECL model inputs may not capture all conditions specific to the Company's portfolio, the Company completes a timely local review, which involves conducting individual client reviews and reviewing local MEVs and will adjust the centrally estimated ECL to appropriately reflect the Company's portfolio. Management applies judgement in making this adjustment, which considers economic and political conditions, quality of underwriting standards, borrower behaviour, deterioration within an industry, product or portfolio, as well as other relevant internal and external factors affecting the credit quality of the portfolio. In certain instances, the interrelationships between these factors create further uncertainties.

A review was conducted for 2021, and an adjustment to ECL was deemed to be immaterial.

In 2020 the ECL included qualitative management adjustments in Q4 to capture the continued uncertainty in the macroeconomic environment, quantified using adjusted scenario weights with 60% weight on the adverse scenarios. There was additionally a smaller adjustment to increase the LGD assumptions on the leveraged finance portfolio.

Stage 3 portfolio estimation techniques

In estimating ECL for Stage 3 loans using an individual discounted cash flow assessment, broad economic conditions affecting a borrower are less relevant as they may not have a direct impact on the specific borrower and its ability to service its debts. Consequently, the Company believes that borrower-specific scenarios are the most relevant in estimating expected credit losses in an individual discounted cash flow assessment. When applying the discounted cash flow methodology, the Company projects cash flows under three borrower-specific forecast scenarios that are reviewed, adjusted and ultimately blended into one-probability weighted calculation of ECL.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Quantitative and qualitative information about the change in ECL and how significant changes in the gross carrying amount drive changes in ECL

ECL and gross carrying amount reconciliation

The following tables provide an explanation of the change in the loss allowance during the year ended 31 December 2021 and 31 December 2020 respectively by respective product classes. The tables also set out how significant changes in the gross carrying amount of financial instruments contributed to the changes in the loss allowance:

1. Traditional credit products

The ECL recognised in the year is impacted by the judgements made by management as described below:

- Determining criteria for significant increase in credit risk.
- Choosing appropriate models and assumptions for the measurement of ECL.
- Establishing the number and relative weightings of forward-looking scenarios for each type of product/market and the associated ECL.
- Establishing groups of similar financial assets for the purposes of measuring ECL.

Wholesale loans - Loans and advances to customers at amortised cost

\$'000	ECL				Gross carrying amount			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
	12-Month ECL	Lifetime ECL	Lifetime ECL		Stage 1	Stage 2	Stage 3	
At 1 January 2021	2,945	3,593	—	6,538	359,257	108,762	—	468,019
New loans originated or purchased ^(a)	1,057	—	—	1,057	73,365	(506)	—	72,859
Loans derecognised or repaid	(420)	(698)	—	(1,118)	(98,091)	(28,668)	—	(126,759)
Existing loans (including credit quality changes)	(1,923)	302	—	(1,621)	(107,919)	71,274	—	(36,645)
Credit rating	(176)	769	—	593	—	—	—	—
Changes in macroeconomic variables ("MEV")	(157)	328	—	171	—	—	—	—
Stage 2 to stage 1	—	—	—	—	435	(435)	—	—
Total changes	(1,619)	701	—	(918)	(132,210)	41,665	—	(90,545)
At 31 December 2021	1,326	4,294	—	5,620	227,047	150,427	—	377,474

\$'000	ECL				Gross carrying amount			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
	12-Month ECL	Lifetime ECL	Lifetime ECL		Stage 1	Stage 2	Stage 3	
At 1 January 2020	240	49	—	289	568,882	11,001	—	579,883
New loans originated or purchased ^(a)	86	—	—	86	128,641	488	—	129,129
Loans derecognised or repaid	(42)	(42)	—	(84)	(194,659)	(8,525)	—	(203,184)
Existing loans (including credit quality changes)	(1,703)	(15)	—	(1,718)	(34,270)	(636)	—	(34,906)
Changes in macroeconomic variables ("MEV")	5,204	10	—	5,214	—	—	—	—
Stage 1 to stage 2	(3,522)	4,437	—	915	(107,263)	107,263	—	—
Modelling methodology enhancement ^(b)	996	(1,644)	—	(648)	(2,074)	(829)	—	(2,903)
Qualitative Management Adjustments	1,686	798	—	2,484	—	—	—	—
Total changes	2,705	3,544	—	6,249	(209,625)	97,761	—	(111,864)
At 31 December 2020	2,945	3,593	—	6,538	359,257	108,762	—	468,019

(a) New loans originated or purchased reflected as Stage 2 were acquired during the year and subsequently experienced a SICR or are committed facilities where SICR is measured from the commitment date.

(b) Refer to the Enhancement in modelling methodology section above on page 15 for further information on the enhancements made in 2020.

Management adjustments, were not considered necessary in 2021, and this has been a driver in decrease in ECL of loans and advances to customers at Amortised cost.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

1. Traditional credit products (continued)

Wholesale loans - Loans and advances to customers at FVOCI

\$'000	ECL				Gross carrying amount				
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Fair value adjustment	Total
	12-Month ECL	Lifetime ECL	Lifetime ECL						
At 1 January 2021	11,724	15,024	14,802	41,550	394,075	89,045	66,365	20,750	570,235
New loans originated or purchased ^(a)	338	520	—	858	31,998	4,963	—	—	36,961
Loans derecognised or repaid	(1,793)	(7,377)	—	(9,170)	(81,959)	(30,865)	(4,250)	—	(117,074)
Existing loans (including credit quality changes)	(4,104)	(3,440)	(8,497)	(16,041)	(47,142)	38,656	(40,133)	—	(48,619)
Credit rating	(1,184)	(23)	—	(1,207)	—	—	—	—	—
Changes in macroeconomic variables ("MEV")	235	399	—	634	—	—	—	—	—
Stage transfers:									
Stage 1 to stage 2	—	—	—	—	(69)	69	—	—	—
Stage 2 to stage 1	—	—	—	—	17	(17)	—	—	—
Fair value adjustment	—	—	—	—	—	—	—	(13,844)	(13,844)
Total changes	(6,508)	(9,921)	(8,497)	(24,926)	(97,155)	12,806	(44,383)	(13,844)	(142,576)
At 31 December 2021	5,216	5,103	6,305	16,624	296,920	101,851	21,982	6,906	427,659

\$'000	ECL				Gross carrying amount				
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Fair value adjustment	Total
	12-Month ECL	Lifetime ECL	Lifetime ECL						
At 1 January 2020	2,192	2,226	105	4,523	765,611	70,626	—	2,794	839,031
New loans originated or purchased ^(a)	2,746	1,012	—	3,758	103,199	14,044	4,250	—	121,493
Loans derecognised or repaid	(279)	(1,732)	—	(2,011)	(380,262)	(60,491)	—	—	(440,753)
Existing loans (including credit quality changes)	8,696	(1,306)	(105)	7,285	49,087	(10,135)	(817)	—	38,135
Changes in macroeconomic variables ("MEV")	6,691	812	—	7,503	—	—	—	—	—
Stage transfers:									
Stage 1 to stage 2	(4,424)	7,048	—	2,624	(101,898)	101,898	—	—	—
Stage 1 to stage 3	(10,245)	—	14,802	4,557	(62,932)	—	62,932	—	—
Fair value adjustment	—	—	—	—	—	—	—	17,956	17,956
Modelling methodology enhancement ^(b)	148	(147)	—	1	21,270	(26,897)	—	—	(5,627)
Qualitative Management Adjustments	6,199	7,111	—	13,310	—	—	—	—	—
Total changes	9,532	12,798	14,697	37,027	(371,536)	18,419	66,365	17,956	(268,796)
At 31 December 2020	11,724	15,024	14,802	41,550	394,075	89,045	66,365	20,750	570,235

(a) New loans originated or purchased reflected as Stage 2 were acquired during the year and subsequently experienced a SICR or are committed facilities where SICR is measured from the commitment date.

(b) Refer to the Enhancement in modelling methodology section above on page 15 for further information on the enhancements made in 2020.

Management adjustments, were not considered necessary in 2021, and this has been a large driver in decrease in ECL of loans and advances to customers at FVOCI.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

1. Traditional credit products (continued)

Loan commitments and financial guarantee contracts

\$'000	ECL			Total
	Stage 1	Stage 2	Stage 3	
	12-Month ECL	Lifetime ECL	Lifetime ECL	
At 1 January 2021	22,221	47,794	2,526	72,541
New loan commitments/ financial guarantees	307	177	—	484
Loan commitments/ financial guarantees drawn	(13,438)	(4,449)	—	(17,887)
Existing loan commitments/financial guarantees (including credit quality changes)	(7,264)	(14,707)	—	(21,971)
Rating changes	(28)	612	—	584
Changes in Macroeconomic variables ("MEV")	477	(14,636)	—	(14,159)
Stage transfers:				
Stage 1 to stage 2	—	—	—	—
Stage 2 to stage 1	1,497	(2,414)	—	(917)
Stage 3 to stage 2	—	526	(2,526)	(2,000)
Total changes	(18,449)	(34,891)	(2,526)	(55,866)
At 31 December 2021	3,772	12,903	—	16,675

\$'000	ECL			Total
	Stage 1	Stage 2	Stage 3	
	12-Month ECL	Lifetime ECL	Lifetime ECL	
At 1 January 2020	1,469	3,408	—	4,877
New loan commitments/ financial guarantees	5,134	5	—	5,139
Loan commitments/ financial guarantees drawn	(183)	(265)	—	(448)
Existing loan commitments/financial guarantees (including credit quality changes)	(3,252)	4,288	—	1,036
Changes in Macroeconomic variables ("MEV")	7,385	3,807	—	11,192
Stage transfers:				
Stage 1 to stage 2	(3,214)	5,998	—	2,784
Stage 2 to stage 1	2	(270)	—	(268)
Stage 2 to stage 3	—	(3,110)	2,526	(584)
Modelling methodology enhancement ^(a)	297	16,180	—	16,477
Qualitative Management Adjustment	14,583	17,753	—	32,336
Total changes	20,752	44,386	2,526	67,664
At 31 December 2020	22,221	47,794	2,526	72,541

(a) Refer to the Enhancement in modelling methodology section above on page 15 for further information on the enhancements made in 2020.

The decrease in ECL was driven by a reduction in facilities drawn and extended as well as the decision not to apply management adjustments in 2021.

2. Non-traditional credit products

Non-TCPs include all other instruments measured at amortised cost and subject to the impairment provisions of International Financial Reporting Standard 9 ("IFRS 9"). The Company has recognised no ECL on Non-TCP balances as the ECL related to these exposures is assessed as immaterial.

The Company's approach to measuring ECL for Non-TCP portfolios depends on the type of instrument. Refer to the Credit exposures section for an analysis per balance sheet line item.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit risk exposures (audited)

The following tables provide an analysis of the Company's credit risk exposure from financial assets. The gross balance sheet exposure represents the Company's maximum exposure to credit risk from these assets. Gross balance sheet exposure is reported on a net-by-counterparty basis for derivatives and securities purchased under agreements to resell when the legal right and intention of offset exists under an enforceable netting agreement as required under IAS 32 'Financial Instruments: Presentation' ("IAS 32"). Net exposure after risk mitigants is presented after taking into account assets which are primarily exposed to market risk, enforceable master netting agreements (where the offsetting criteria under IAS 32 is not met) and the value of any collateral received.

	Risk mitigants					Net balance sheet exposure held with:	
	Gross balance sheet exposure ^(a)	Exposures captured by market risk	Master netting agreements and other	Cash & security collateral ^(b)	Net credit exposure	JPMorgan Chase undertakings	External counter parties
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Financial assets at 31 December 2021							
Cash and balances at central banks	13,558,101	—	—	—	13,558,101	—	13,558,101
Loans and advances to banks	7,853,765	—	—	—	7,853,765	4,545,321	3,308,444
Loans and advances to customers ^(c)	799,513	—	—	(543,599)	255,914	—	255,914
Securities purchased under agreements to resell ^(d)	185,015,310	—	(52,851,641)	(128,062,732)	4,100,937	2,132,255	1,968,682
Securities borrowed ^(d)	53,966,173	—	(6,796,170)	(39,241,021)	7,928,982	63,038	7,865,944
Financial assets at fair value through profit or loss ^(e)	339,768,021	(123,118,085)	(188,796,971)	(13,700,048)	14,152,917	—	14,152,917
Debtors	113,146,384	—	—	—	113,146,384	65,593,717	47,552,667
Accrued income	699,590	—	—	—	699,590	73,647	625,943
Total	714,806,857	(123,118,085)	(248,444,782)	(181,547,400)	161,696,590	72,407,978	89,288,612

	Risk mitigants					Net balance sheet exposure held with:	
	Gross balance sheet exposure ^(a)	Exposures captured by market risk	Master netting agreements and other	Cash & security collateral ^(b)	Net exposure after risk mitigants	JPMorgan Chase undertakings	External counter parties
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Financial assets at 31 December 2020:							
Cash and balances at central banks	13,595,722	—	—	—	13,595,722	—	13,595,722
Loans and advances to banks	8,152,288	—	—	—	8,152,288	4,531,466	3,620,822
Loans and advances to customers ^(c)	990,166	—	—	(916,843)	73,323	—	73,323
Securities purchased under agreements to resell ^(d)	224,036,595	—	(58,748,596)	(159,530,740)	5,757,259	397,465	5,359,794
Securities borrowed ^(d)	40,814,802	—	(9,186,868)	(26,310,588)	5,317,346	262,362	5,054,984
Financial assets at fair value through profit or loss ^(e)	431,967,578	(115,397,713)	(286,397,690)	(20,275,703)	9,896,472	—	9,896,472
Debtors	115,763,212	—	—	—	115,763,212	63,834,591	51,928,621
Accrued income	664,472	—	—	—	664,472	84,169	580,303
Total	835,984,835	(115,397,713)	(354,333,154)	(207,033,874)	159,220,094	69,110,053	90,110,041

- (a) Gross exposure of \$305.6 billion (2020: \$338.6 billion) is held with other JPMorgan Chase undertakings. For further details of these amounts by line item category, refer to the notes to the financial statements.
- (b) Cash and securities collateral received in respect of financial assets at fair value through profit or loss is limited to net balance sheet exposure, after taking into account master netting and other arrangements.
- (c) The net balance sheet exposure on loans and advances to customers is presented without taking into account credit risk mitigants such as financial guarantees, or other non-financial collateral.
- (d) The fair value of the securities collateral in respect of securities financing transactions is, in aggregate, greater than the net amounts reported on balance sheet, and therefore, the related amounts included as cash and securities collateral have been limited to the extent of the net amount (of remaining exposure) by counterparty.
- (e) The majority of debt and equity instruments and loans and advances to customers at FVTPL are primarily exposed to market risk and are therefore deducted to determine the net credit risk exposure.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit risk exposures (audited) (continued)

Off balance sheet exposure consists of lending-related commitments, financial guarantees and unsettled securities financing transactions (repurchase agreements, reverse repurchase agreements, securities borrowed and securities lent) of \$121.8 billion (2020: \$136.2 billion). Refer to Note 32.

The Company's credit exposures and credit risk mitigants are described below. An ECL allowance is only recognised on loans and advances to customers held at amortised cost and FVOCI. The Company's approach to measuring ECL for Non-TCP portfolios is further discussed below.

Cash and balances at central banks

Cash and balances with central banks include interest-bearing deposits, and are held with investment-grade institutions.

In evaluating the lifetime ECL related to receivables from a bank, the Company determined the expected probability of default was extremely remote, and the magnitude of lifetime ECL related to exposures would be negligible as these are regulated investment-grade institutions that have significant capital, loss absorbing capacity and liquidity. The majority of the deposits held are short term in nature and can be withdrawn at short notice (typically overnight).

The Company includes cash and balances at central banks in Stage 1 as they are short-term and investment-grade and banking institutions are considered to have high quality credit with low risk of default and therefore the Company has concluded there is no material SICR.

Loans and advances to banks

The Company places substantially all of its deposits with investment-grade banks. Similar to cash and balances at central banks, the Company includes loans and advances to banks in Stage 1 as investment-grade institutions are considered to have high quality credit with low risk of default and therefore the Company has concluded there is no material SICR.

Loans and advance to customers

The table below presents the Company's credit exposure and contractual maturity profile to gross loans and advances to customers before any provision for impairment. The credit quality and credit concentration of loans and advances to customers is managed within JPMorgan Chase's Credit Risk Management function. The ratings scale is based on JPMorgan Chase's internal risk ratings, which generally correspond to the ratings as defined by S&P and Moody's Investors Service.

Maturity profile

Loans and advances to customers at amortised cost and FVOCI

At 31 December	2021	2020
	\$'000	\$'000
Maturity		
5 years or more	—	23,222
5 years or less but over 1 year	697,412	943,456
1 year or less but over 3 months	63,658	71,576
3 months or less	44,063	—
Total	805,133	1,038,254

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit risk exposures (audited) (continued)

Loans and advances to customers (continued)

Ratings profile

At 31 December 2021	Stages			
	Stage 1	Stage 2	Stage 3	
	Gross carrying amount			Total
Loans and advances to customers at amortised cost				
	\$'000	\$'000	\$'000	\$'000
Investment grade				
AAA/Aaa to BBB-Baa2	81,472	—	—	81,472
Non-investment grade				
BBB-/Baa3 -> B-/B3	145,575	150,427	—	296,002
CCC+/Caa1 and below				—
Gross carrying amount	227,047	150,427	—	377,474
Loans and advances to customers at FVOCI				
	\$'000	\$'000	\$'000	\$'000
Investment grade				
AAA/Aaa to BBB-Baa2	76,932	—	—	76,932
Non-investment grade				
BBB-/Baa3 -> B-/B3	191,996	65,250	—	257,246
CCC+/Caa1 and below	27,992	36,601	21,982	86,575
Gross carrying amount	296,920	101,851	21,982	420,753
Fair value adjustment				6,906
Total	296,920	101,851	21,982	427,659
Total	523,967	252,278	21,982	805,133

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit risk exposures (audited) (continued)

Loans and advances to customers (continued)

Ratings profile (continued)

31 December 2020	Stages			Total
	Stage 1	Stage 2	Stage 3	
	Gross carrying amount			
Loans and advances to customers at amortised cost				
	\$'000	\$'000	\$'000	\$'000
Investment grade				
AAA/Aaa to BBB-Baa2	77,533	—	—	77,533
Non-investment grade				
BBB-/Baa3 -> B-/B3	281,723	108,763	—	390,486
CCC+/Caa1 and below	—	—	—	—
Gross carrying amount	359,256	108,763	—	468,019
Loans and advances to customers at FVOCI				
	\$'000	\$'000	\$'000	\$'000
Investment grade				
AAA/Aaa to BBB-Baa2	173,541	—	—	173,541
Non-investment grade				
BBB-/Baa3 -> B-/B3	190,614	55,203	—	245,817
CCC+/Caa1 and below	29,921	33,841	66,365	130,127
Gross carrying amount	394,076	89,044	66,365	549,485
Fair value adjustment				20,750
Total	394,076	89,044	66,365	570,235
Total	753,332	197,807	66,365	1,038,254

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit risk exposures (audited) (continued)

Loans and advances to customers (continued)

Analysis of concentration credit risk

Concentrations of credit risk arise when a number of customers are engaged in similar business activities or activities in the same geographic region, or when they have similar economic features that would cause their ability to meet contractual obligations to be similarly affected by changes in economic conditions.

Loans and advances to customers at amortised cost and FVOCI

At 31 December	2021 \$'000	2020 \$'000
Credit risk concentration		
Geographic region		
United Kingdom	27,274	150,429
Other European	484,183	537,979
Rest of the world	293,676	349,846
Total	805,133	1,038,254
Industry concentration		
Commercial and industrial	385,855	536,009
Real estate	335,477	369,802
Financial institutions	62,530	46,928
Other	21,271	85,515
Total	805,133	1,038,254

Securities purchased under agreements to resell and securities borrowed

The Company generally bears credit risk related to resale agreements and securities borrowed where cash advanced to the counterparty exceeds the expected value of the collateral received on default. The Company's credit exposure on these transactions is significantly lower than the amounts recorded on balance sheet as the substantial majority represent contractual value before consideration of any collateral received.

Where a fully collateralised arrangement exists (for example a reverse repurchase agreement), the estimate of the allowance is immaterial due to the following credit mitigants:

Continuous margining requirements: The contractual terms of these agreements are designed to ensure that they are fully collateralised based on continuous margining requirements, even when the credit risk of the borrower increases significantly. The contractual terms provide the Company (as lender) with the legal right to receive additional margin from the borrower each day a margin deficit exists. The contractual terms also allow the Company to increase margin requirements, and to revoke or reduce lending commitments to the borrower at any time.

Inter-company arrangements may be repayable on demand: The vast majority of the Company's collateralised inter-company lending arrangements are executed under master contracts that provide additional protections for the Firm, such as stipulating that extensions of credit are repayable on demand.

High quality collateral: If, in the extremely rare circumstance that the borrower were to default, because the collateral is generally of high quality (G5 government obligations) or is otherwise considered highly liquid, the Company has the legal right and operational ability, as well as the intent, to immediately seize the collateral and liquidate it in a timely and price-efficient manner to minimize any loss.

The majority of securities purchased under agreements to resell are held at fair value. The fair value of the security collateral in respect of securities financing transactions is, in aggregate, greater than the net amounts reported on balance sheet.

Securities financing arrangements tend to be short-term in nature with no history of credit losses. These arrangements are included in Stage 1 as the Company has determined there is no SICR during the short tenor of the instrument as at 31 December 2021. The Company recognises no ECL on these balances as the ECL related to these exposures is assessed as immaterial.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit risk exposures (audited) (continued)

Debtors

Debtors consist of trade and other debtors. Trade debtors mainly consist of fee receivables and unsettled trades. Unsettled trades constitute receivables related to sales of securities which have not yet settled. These receivables generally have minimal credit risk due to the low probability of a clearing organisation default and failure to deliver, and the short-term nature of receivables related to securities settlements which are predominately on a delivery versus payment basis. The Company recognises no ECL on these balances as the ECL related to these exposures is assessed as immaterial.

Fee receivables

Fee receivables arise out of revenue from contracts with customers, such as a management fee or distribution revenue. Staging and write off policies depend on the nature of the asset. Fee receivables for institutional clients are included in Stage 1 if they are less than 90 days past due ("dpd"), and instruments less than 180 dpd are included in Stage 2. A fee receivable from an institutional client is deemed to be credit-impaired and 100% reserved when it is 180 dpd or more. The Company has not had significant losses on its fee receivable portfolios and based on the immateriality of these losses, the provision matrix and staging approach described is applied. The Company continues to monitor the fee receivable population to ensure the described framework is appropriate and ECLs on this portfolio are adequately reflected.

The accounting policy for other assets requires they be written-off when the asset is (i) deemed to be uncollectible or (ii) past due for more than 90 days, whichever occurs first. The Company believes that the 90 day write-off policy materially limits the non-TCP exposure recorded on the balance sheet.

The Company relies on the staging backstops in IFRS 9 and presumes that other assets that are 30 dpd have experienced a SICR and are included in Stage 2. Other assets that are greater than 90 days past due are deemed to be credit-impaired and are included in Stage 3. Other assets that are current or less than 30 dpd are included in Stage 1.

Other Debtors

Other debtors primarily comprise receivables related to cash collateral paid to counterparties in respect of derivative financial instruments. Margin posted in cash is reflected as a receivable from the counterparty and is carried at amortised cost. Furthermore, the Company provides clearing services to its clients wherein it facilitates the execution and settlement of derivative transactions by intermediating between a Central Clearing Party ("CCP") and a client, the associated cash collateral is recognised at amortised cost. In evaluating the lifetime ECL related to receivables from a CCP, the Company determined the expected probability of CCP default was remote, and the magnitude of lifetime expected credit losses related to CCP exposures would be negligible due to the multi-layered credit protection inherent in the design and operations of the CCP clearing model. As such, the Firm includes these receivables in Stage 1.

Non-TCP intercompany transactions

For Non-TCP inter-company transactions where the borrower is a Material Legal entity ("MLE"), the Company's anticipated ECL was determined to not be material and no loss was recognised, for the following reasons:

- The MLE borrower has been prepositioned with funding in an extremely efficient manner from both a liquidity and a capital perspective.
- JPMorgan Chase Bank, N.A. ("JPMCB") and the JPMorgan Chase Holdings LLC ("IHC"), are obligated to provide financial support to their direct and indirect subsidiaries in connection with the Support Agreement that is put in place as part of the Firm's resolution planning process, which effectively functions as a guarantee/backstop for inter-company lending arrangements with an MLE borrower.

As MLEs are adequately capitalised to ensure the MLE can fulfil all of its debt obligations even in the event of an orderly liquidation of JPMorgan Chase and are of investment grade, these inter-company receivables are included in Stage 1 as they are held with MLEs and considered to not have an increase in credit risk that would result in material expected credit losses. Receivables from MLEs are only included in Stage 2 if the obligor is no longer considered an MLE and there is evidence of credit deterioration of the obligor, or if certain support triggers defined in the JPMorgan Chase's Resolution Plan occur. Receivables from MLEs are not credit-impaired as the Firm ensures MLEs are more than adequately capitalised as required by the Firm's Resolution Plan.

The Company's anticipated ECL for other receivables from non MLEs was determined to not be material and no loss was recognised.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Credit risk exposures (audited) (continued)

Accrued income

Accrued income primarily represents accrued interest on securities purchased under resale agreements and loans and other accruals. The majority of accrued income owed by other JPMorgan Chase undertakings are MLE's, refer to assessment as included within debtors above.

Loan commitments and financial guarantee contracts

The following table summarises the contractual amounts and loss allowance recognised on off-balance sheet lending-related commitments and standby letters of credit.

31 December 2021	Stages			
	Stage 1	Stage 2	Stage 3	
	Gross carrying amount			Total
At Amortised cost				
Rating profile	\$'000	\$'000	\$'000	\$'000
Investment-grade				
AAA/Aaa to BBB-Baa2	4,150,058	25,534	—	4,175,592
Non-investment-grade				
BBB-/Baa3 -> B-/B3	1,109,998	413,121	—	1,523,119
CCC+/Caa1 and below	120,469	211,170	—	331,639
Contractual amount	5,380,525	649,825	—	6,030,350

At 31 December 2020	Stages			
	Stage 1	Stage 2	Stage 3	
	Gross carrying amount			Total
At Amortised cost				
Rating profile	\$'000	\$'000	\$'000	\$'000
Investment-grade				
AAA/Aaa to BBB-Baa2	8,209,724	886,993	—	9,096,717
Non-investment-grade				
BBB-/Baa3 -> B-/B3	2,597,849	799,760	—	3,397,609
CCC+/Caa1 and below	45,781	287,973	23,984	357,738
Contractual amount	10,853,354	1,974,726	23,984	12,852,064

Lending related commitments to other JPMorgan Chase undertakings have been incorporated into the above note (2021: \$99.06 billion; 2020: \$5.76 billion).

Impact of collateral/credit enhancements on ECL

If a non-derivative credit enhancement is deemed to be part of the same unit of account as the related loan, pool of loans or loan commitment, and the Company has not elected the fair value option for the related instruments, the expected credit loss under IFRS 9 may be reduced for losses expected to be recovered from the enhancement provider, as long as there is evidence that the third party providing the credit enhancement has the ability and willingness to reimburse the Company for the losses. If a non-derivative credit enhancement is not deemed to be part of the same unit of account as the loan, pool of loans or loan commitment, the credit enhancement must be accounted for separately and must not be used to reduce expected credit losses. The Company may hold a security interest in various types of collateral including cash, securities, receivables, inventory, equipment, real estate or other non-financial assets.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Credit risk (audited) (continued)

Loan modifications

Gains and losses on financial assets and loan commitments that were modified while they had a loss allowance measured at an amount equal to lifetime ECL were immaterial for the year ended 31 December 2021 and 31 December 2020. Additionally, the gross carrying values of financial assets that were modified for which the loss allowance was changed from measuring at an amount equal to lifetime expected credit losses to an amount equal to 12-month expected credit losses during the periods ending 31 December 2021 and 31 December 2020 were immaterial.

Country risk

The Firm has a country risk management framework for monitoring and assessing how financial, economic, political or other significant developments adversely affect the value of the Firm's exposures related to a particular country or set of countries. The Country Risk Management group actively monitors the various portfolios which may be impacted by these developments to ensure the Firm's and Company's exposures are diversified and that exposure levels are appropriate given the Firm and Company's strategy and risk tolerance relative to a country.

Risk organisation and management

Country Risk Management is an independent risk management function that assesses, manages and monitors country risk originated across the Firm. The Firmwide Risk Executive for Country Risk reports to the Firm's CRO. The Firm's country risk management function includes the following activities:

- Establishing policies, procedures and standards consistent with a comprehensive country risk framework.
- Assigning sovereign ratings and assessing country risks and establishing risk tolerance relative to a country.
- Measuring and monitoring country risk exposure and stress across the Firm.
- Managing and approving country limits and reporting trends and limit breaches to senior management.
- Developing surveillance tools, such as signalling models and ratings indicators for early identification of potential country risk concerns.
- Providing country risk scenario analysis.

Country Risk has established exposure and stress guidelines for the Company as outlined in the Legal Entity Country Risk Framework.

Risk sources and measurement

The Firm and Company are exposed to country risk through their lending and deposits, investing, and market-making activities, whether cross-border or locally funded. Country exposure includes activity with both government and private-sector entities in a country. Under the Firm's internal country risk management approach, country exposure is reported based on the country where the majority of the assets of the obligor, counterparty, issuer or guarantor are located or where the majority of its revenue is derived, which may be different than the domicile (legal residence) or country of incorporation of the obligor, counterparty, issuer or guarantor. Country exposures are generally measured by considering the Firm's and Company's risk to an immediate default of the counterparty or obligor, with zero recovery. Assumptions are sometimes required in determining the measurement and allocation of country exposure, particularly in the case of certain non-linear or index exposures. The use of different measurement approaches or assumptions could affect the amount of reported country exposure.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Country risk (continued)

Risk sources and measurement (continued)

The Company uses the Firm's internal country risk measurement framework to:

- Lending exposures are measured at the total committed amount (funded and unfunded), net of the allowance for credit losses and cash and marketable securities collateral received.
- Deposits are measured as the cash balances placed with central and commercial banks.
- Securities financing exposures are measured at their receivable balance, net of collateral received.
- Debt and equity securities are measured at the fair value of all positions, including both long and short positions.
- Counterparty exposure on derivative receivables is measured at the derivative's fair value, net of the fair value of the related collateral. Counterparty exposure on derivatives can change significantly because of market movements.
- Credit derivatives protection purchased and sold is reported based on the underlying reference entity and is measured at the notional amount of protection purchased or sold, net of the fair value of the recognised derivative receivable or payable. Credit derivatives protection purchased and sold in the Firm's market making activities is measured on a net basis, as such activities often result in selling and purchasing protection related to the same underlying reference entity; this reflects the manner in which the Firm manages these exposures.

Some activities may create contingent or indirect exposure related to a country (for example, providing clearing services or secondary exposure to collateral on securities financing receivables). These exposures are managed in the normal course of business through the Firm's and Company's credit, market, and operational risk governance, rather than through Country Risk Management.

Risk stress testing

Stress testing is an important component of the Firm's country risk management framework, which aims to estimate and limit losses arising from a country crisis by measuring the impact of adverse asset price movements to a country based on market shocks combined with counterparty specific assumptions. Country Risk Management periodically designs and runs tailored stress scenarios to test vulnerabilities to individual countries, or group of countries, in response to specific or potential market events, sector performance concerns and geopolitical risks.

COVID-19

Country Risk Management continues to monitor the impact of COVID-19, leveraging existing stress testing, exposure reporting and controls, as well as tailored analysis, to assess the extent to which individual countries may be adversely impacted.

Risk reporting

The Company's top five country exposures as of 31 December 2021 are the United Kingdom \$19.9bn, Japan \$2.43bn, Israel \$2.21bn, Belgium \$2.20bn and South Africa \$1.80bn. The selection of countries represent the Company's largest total primary exposures by country, based on the Firm's internal country risk management approach, and does not represent the Firm's view of any actual or potentially adverse credit conditions. Country exposures may fluctuate from period to period due to client activity and market flows.

Liquidity risk (audited)

Liquidity risk is the risk that the Company will be unable to meet its contractual and contingent financial obligations as they arise or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities.

Liquidity risk oversight

The Firm has a Liquidity Risk Oversight function whose primary objective is to provide oversight of liquidity risk across the Firm. Liquidity Risk Oversight's responsibilities include:

- Defining, monitoring and reporting liquidity risk metrics.
- Independently establishing and monitoring limits and indicators including liquidity risk appetite.
- Developing a process to classify, monitor and report limit breaches.
- Performing an independent review of liquidity risk management processes.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Liquidity risk (audited) (continued)

Liquidity risk oversight (continued)

- Monitoring and reporting internal Firmwide and legal entity liquidity stress tests as well as regulatory defined metrics, as well as liquidity positions, balance sheet variances, and funding activities.
- Approving or escalating for review new or updated liquidity stress assumptions.

Liquidity management

The primary objectives of the Firm's liquidity management are to:

- Ensure that the Firm's core businesses and material legal entities are able to operate in support of client needs and meet contractual and contingent financial obligations through normal economic cycles as well as during stress events.
- Manage an optimal funding mix, and availability of liquidity sources.

As part of the Firm's overall liquidity management strategy, the Firm manages liquidity and funding using a centralised, global approach in order to:

- Optimise liquidity sources and uses.
- Monitor exposures.
- Identify constraints on the transfer of liquidity between the Firm's legal entities.
- Maintain the appropriate amount of surplus liquidity at a Firmwide and legal entity level, where relevant.

In the context of the Firm's liquidity management, Treasury and CIO ("T/CIO") is responsible for:

- Analysing and understanding the liquidity characteristics of the assets and liabilities of the Firm, lines of business and legal entities, taking into account legal, regulatory, and operational restrictions.
- Developing internal liquidity stress testing assumptions.
- Defining and monitoring Firmwide and legal entity-specific liquidity strategies, policies, reporting and contingency funding plans.
- Managing liquidity within the firm's approved liquidity risk appetite tolerances and limits.
- Managing compliance with regulatory requirements related to funding and liquidity risk; and
- Setting transfer pricing in accordance with underlying liquidity characteristics of balance sheet assets and liabilities as well as certain off-balance sheet items.

Liquidity Requirements (unaudited)

The Company is regulated by the PRA and until 31st December 2020 was expected to comply with the liquidity coverage ratio ("LCR") guidance set out in the Delegated Act (Commission delegated regulation (EU) 2015/61). As the UK has now left the EU, the Company had to adhere to the onshored European Commission Delegated Act 2015/61 until the UK CRR legislation came into effect on 1 January 2022. The LCR is intended to measure the amount of high-quality liquid assets ("HQLA") held by the Company in relation to estimated net liquidity outflows within a 30-calendar day stress period. At 31 December 2021, the Company was compliant with the LCR requirement.

The net stable funding ratio ("NSFR") is a liquidity requirement intended to measure the adequacy of "available" and "required" amounts of stable funding over a one-year horizon. The NSFR has become a binding measure in the UK from 1 January 2022, when the UK CRR equivalent rules came into force. Under these rules, the Company is required to maintain an NSFR of at least 100% on an ongoing basis. The Company is also required to publicly disclose as part of its Pillar 3 disclosure process the average of its NSFR ratio based on the end-of-the-quarter observations over the preceding four quarters, starting from 2023.

Risk governance and measurement

Committees responsible for liquidity governance include the Firmwide Asset and Liability Committee ("ALCO"), as well as line of business and regional ALCOs, the Treasurer Committee and Corporate ("CTC") Risk Committee. In addition, the Board Risk Committee reviews and recommends to the Board of Directors, for formal approval, the Firm's liquidity risk tolerances, liquidity strategy, and liquidity policy.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Liquidity risk (audited) (continued)

Internal stress testing

Liquidity stress tests are intended to ensure that the Company has sufficient liquidity under a variety of adverse scenarios, including scenarios analysed as part of the Firm's resolution and recovery planning. Stress scenarios are produced for the Company on a regular basis and other stress tests are performed in response to specific market events or concerns. Liquidity stress tests assume all of the Company's contractual financial obligations are met and take into consideration:

- Varying levels of access to unsecured and secured funding markets.
- Estimated non-contractual and contingent cash outflows.
- Potential impediments to the availability and transferability of liquidity between jurisdictions and material legal entities such as regulatory, legal or other restrictions.

Liquidity outflow assumptions are modelled across a range of time horizons and currency dimensions and contemplate both market and idiosyncratic stress.

Results of stress tests are considered in the formulation of the Company's funding plan and assessment of its liquidity position.

Liquidity risk stress testing is established at the Firm and material legal entity level. The Company's liquidity stress testing is incorporated within the JPMorgan Chase legal entity liquidity risk framework and follows Firmwide liquidity assumptions, with additional considerations for intercompany positions and the definition of local liquid asset buffer.

Contingency funding plan

The Firm's Contingency Funding Plan ("CFP") sets out the strategies for addressing and managing liquidity resource needs during a liquidity stress event and incorporates liquidity risk limits, indicators and risk appetite tolerances that make up Liquidity Escalation Points. The CFP also identifies the alternative contingent funding and liquidity resources available to the Firm and its legal entities in a period of stress.

Funding

The Company's sources of short-term secured funding primarily consist of securities loaned or sold under agreements to repurchase. Securities loaned or sold under agreements to repurchase are secured predominantly by high-quality securities collateral, predominantly government-issued debt. The directors believe that the Company's unsecured and secured funding capacity is sufficient to meet its on and off-balance sheet obligations (unaudited).

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Liquidity risk (audited) (continued)

Funding (continued)

The table below presents the maturity details of all financial liabilities. Securities sold under agreements to repurchase, securities loaned, financial liabilities at fair value through profit or loss, and liabilities designated at fair value through profit or loss have been disclosed at their fair values, consistent with how these financial liabilities are managed. Amounts greater than one year represent undiscounted cash flows. Due to the nature and contractual maturity of all other financial liabilities they are presented at the carrying amount, which is not materially different to the undiscounted cash flow.

	Less than 1 year	More than 1 year	Total	Less than 1 year	More than 1 year	Total
	2021	2021	2021	2020	2020	2020
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Securities sold under agreements to repurchase	99,516,924	5,142,440	104,659,364	133,842,134	8,610,471	142,452,605
Securities loaned	9,162,653	—	9,162,653	11,851,953	—	11,851,953
Financial liabilities at fair value through profit or loss	258,590,580	—	258,590,580	344,663,186	—	344,663,186
Financial liabilities designated at fair value through profit or loss	31,501,523	397,167	31,898,690	27,677,700	934,265	28,611,965
Trade creditors	53,158,517	—	53,158,517	46,712,298	—	46,712,298
Amounts owed to JPMorgan Chase undertakings	54,855,889	114,300,000	169,155,889	64,244,708	93,671,700	157,916,408
Other liabilities	30,691,965	—	30,691,965	45,425,598	—	45,425,598
Subordinated liabilities	214,585	13,287,508	13,502,093	205,586	13,439,104	13,644,690
	537,692,636	133,127,115	670,819,751	674,623,163	116,655,540	791,278,703

The majority of short term funding transactions by way of repurchase agreements and stock lending have short-dated maturities, typically less than one month. Trade creditors predominantly includes unsettled trades and other liabilities includes cash collateral received. Both have short-dated maturities. Majority of financial liabilities designated at fair value through profit or loss represent fully funded OTC instruments facing both JPM Chase undertakings and third parties. These OTC instruments generally contain early redemption clauses or allow the client to exercise put options, and as such they are disclosed as having a maturity within one year. Financial liabilities at fair value through profit or loss include derivatives and short positions and are ordinarily classified as liabilities falling due within one year for the purpose of disclosure under IFRS 7 'Financial Instruments: Disclosures'.

In addition to the above, there are loan commitments and guarantees which are typically payable on demand. These are disclosed in Note 32).

Credit ratings

The Company is rated on a standalone non-guaranteed basis. Independent credit ratings agencies Moody's Investors Service, S&P and Fitch Ratings have rated the Company as 'Aa3/P-1', 'A+/A-1' and 'AA/F1+' respectively.

Market risk (audited)

Market risk is the risk associated with the effect of changes in market factors such as interest and foreign exchange rates, equity and commodity prices, credit spreads or implied volatilities, on the value of assets and liabilities held for both the short and long term.

The following sections detail the market risk management framework at both the Firmwide and Company levels.

Market Risk Management monitors market risks throughout the Firm and defines market risk policies, procedures and other guidance as appropriate. The Market Risk Management function reports to the Firm's CRO, and seeks to manage risk, facilitate efficient risk/return decisions, reduce volatility in operating performance and provide transparency into the Firm's market risk profile for senior management, the Board of Directors and regulators.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Market risk (audited) (continued)

Risk Governance & Policy Framework

The Company's approach to market risk governance mirrors the Firmwide approach and is outlined in the Company's Market Risk Framework. The Company's Market Risk Framework outlines the following:

- Responsibilities of the CRO and Market Risk Officer ("MRO")
- Market Risk measures utilised such as VaR, Stress and non-statistical measures
- Controls such as the Company's market risk limit framework (limit levels, limit signatories, limit reviews and escalation)

The Company's Board of Directors approves substantive changes to the Framework and approves this Framework annually.

Risk Measurement

There is no single measure to capture market risk and therefore the Firm and Company uses various metrics both statistical and non-statistical to assess risk. The appropriate set of risk measures utilised for a given business activity is tailored based on business mandate, risk horizon, materiality, market volatility and other factors.

Value-at-Risk ("VaR")

The Firm utilises VaR, a statistical risk measure, to estimate the potential loss from adverse market moves in the current market environment. The Firm has a single VaR framework used as a basis for calculating Risk Management VaR and Regulatory VaR.

The VaR framework is employed across the Firm using historical simulation based on data for the previous 12 months. Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. These VaR results are reported to senior management, the Firm's Board of Directors and regulators.

Separately, Regulatory VaR, also applied across the Firm, assumes a ten business-day holding period and an expected tail loss methodology which approximates a 99% confidence level. Regulatory VaR is applied to "covered" positions as defined by Basel III, which may be different than the positions included in the Firm's Risk Management VaR.

The Company applies the Firmwide approach for Risk Management VaR as described above, for internal risk management purposes. The Company also utilises Regulatory VaR, as described above, for the calculation of model based regulatory capital under Internal Models Approach ("IMA") for a subset of the trading book population in Global Credit Trading and Global Equities.

The table below shows the result of the Company's Risk Management VaR:

	2021			2020			At 31 December	
	Avg. ^(a)	Min	Max ^(b)	Avg. ^(c)	Min	Max	2021	2020
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
95 % VaR	16,953	10,898	39,166	41,567	16,445	68,984	14,573	29,185

(a) VaR utilisation in 2021 reduced following roll off of March 2021 CoVID-19 Pandemic volatility in the 1 year look back window.

(b) Maximum VaR (\$39.2 million) was observed in February 2021 before volatility roll off.

(c) 2020 VaR levels were driven by the market volatility experienced during the March 2020 selloff from the CoVID-19 Pandemic.

The Company's market risk profile is driven by Credit, Equities, FX, IR and Commodity market related exposures. Of the standard stress scenarios that the Company is subject to, the worst case stress loss during 2021 was primarily driven by the Equity Collapse scenario.

Stress testing

Along with VaR, stress testing is an important tool to assess risk. While VaR reflects the risk of loss due to adverse changes in markets using recent historical market behaviour, stress testing reflects the risk of loss from hypothetical changes in the value of market risk sensitive positions applied simultaneously.

The Firm and the Company run weekly stress tests on market-related risks across the lines of business using multiple scenarios that assume significant changes in risk factors such as credit spreads, equity prices, interest rates, currency rates and commodity prices.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Market risk (audited) (continued)

Stress testing (continued)

The Firm and the Company use a number of standard scenarios that capture different risk factors across asset classes including geographical factors, specific idiosyncratic factors and extreme tail events. The stress testing framework calculates multiple magnitudes of potential stress for both market rallies and market sell-offs for each risk factor and combines them in multiple ways to capture different market scenarios. The flexibility of the stress testing framework allows risk managers to construct new, specific scenarios that can be used to form decisions about future possible stress events.

Stress testing complements VaR by allowing risk managers to shock current market prices to more extreme levels relative to those historically realised, and to stress test the relationships between market prices under extreme scenarios. Stress-test results, trends and qualitative explanations based on current market risk positions are reported to the respective LOB, Firm and Company senior management as appropriate, to allow them to better understand the sensitivity of positions to certain defined events and to enable them to manage their risks with more transparency.

Stress scenarios are defined and reviewed by Market Risk, and significant changes are reviewed by the relevant LOB Risk Committees and may be redefined on a periodic basis to reflect current market conditions.

Other Non-statistical risk measures

Aside from VaR and stress testing, other specific risk measures, such as, but not limited to, credit spread sensitivities, net open positions, basis point values, option sensitivities, are also utilised within specific market context and aggregated across businesses.

The Company utilises non-statistical risk measures, such as but not limited to FX delta and IR BPV (Basis Point Value), to measure and monitor risk.

Risk Monitoring and Control

Limits

Market risk limits are employed as the primary control to align the Firm's and the Company's market risk with certain quantitative parameters within the Firm's and the Company's Risk Appetite framework, respectively.

Market Risk sets limits and regularly reviews and updates them as appropriate, with any changes approved by Firm or LOB or Company management, as appropriate, and Market Risk, except limit reductions which are approved by Risk only (and the Firm CEO where appropriate). Limits that have not been reviewed within a specified time period by Market Risk are reported to senior management.

Limit breaches are required to be reported in a timely manner to limit approvers, which include Market Risk and senior management. In the event of a limit breach, Market Risk consults with senior management to determine the course of action required to return to compliance, which may include a reduction in risk in order to remedy the breach or granting a temporary increase in limits to accommodate an expected increase in client activity and/or market volatility. Certain Firm, LOB or Company level limit breaches are escalated as appropriate.

The Company's limits include VaR and Stress limits established for the legal entity, in aggregate, and for individual businesses operating out of the legal entity:

- The Company's CEO, CRO and Market Risk Officer ('MRO') are approvers of the market risk limits for the legal entity in aggregate.
- Appropriate business area representatives and Market Risk representatives are approvers of business area specific limits.

Risk Reporting

The Firm and the Company have their own set of regular market risk reports, which include daily notifications of limit utilisations and limit breaches and where applicable, granular market risk metrics which provide transparency into potential risk concentrations.

Market Risk Management continues to actively monitor the impact of COVID-19 on market risk exposures by leveraging existing risk measures and controls.

Models used to measure market risk are inherently imprecise and may be limited in their ability to measure certain risks or to predict losses. This imprecision may be heightened when sudden or severe shifts in market conditions occur. For additional discussion on model uncertainty, refer to the Model Risk section.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Market risk (audited) (continued)

Risk Reporting (continued)

Market Risk Management periodically reviews the Firm's and the Company's existing market risk measures to identify opportunities for enhancement, and to the extent appropriate, will calibrate those measures accordingly over time.

Interbank offered rate ("IBOR") Transition

The Financial Stability Board ("FSB") and the Financial Stability Oversight Council ("FSOC") have observed that the secular decline in interbank short-term funding poses structural risks for unsecured benchmark interest rates such as Interbank Offered Rates ("IBORs"), and therefore regulators and market participants in various jurisdictions have been working to identify alternative reference rates that are compliant with the International Organisation of Securities Commission's standards for transaction-based benchmarks. On March 05, 2021, the Financial Conduct Authority ("FCA") confirmed the delay to the cessation of the principal tenors of U.S. dollar LIBOR (i.e., overnight, one-month, three month, six month and 12-month LIBOR) until June 30, 2023 and announced that there has been no change to the scheduled cessation of U.K. sterling ("GBP"), Japanese yen ("JPY"), Swiss franc and Euro LIBOR, as well as the remaining tenors of U.S dollar LIBOR, from December 31, 2021.

On November 16, 2021 the Financial Conduct Authority ("FCA") confirmed that it will allow, for a period of at least one year, the use of "synthetic" U.K. sterling and Japanese yen LIBOR rates in all legacy LIBOR contracts, other than cleared derivatives, that had not been transitioned to replacement rates by January 1, 2022. The use of these synthetic LIBORs, will allow market participants additional time to complete their transition to replacement rates or otherwise to reduce their exposure to contracts that do not have robust fallback mechanisms and that are difficult to amend.

In the U.S, U.K., EU, Japan and Switzerland the Alternative Reference Rate Committee ("ARRC"), the Working-Group on Sterling Risk-Free Reference Rates ("Sterling RFR WG"), the Working Group on Euro Risk-Free Rates ("Euro RFR WG", the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks and the National Working Group on Swiss Franc Reference Rates respectively, groups composed of market and official sector participants, have identified the secured Overnight Financing Rate ("SOFR") the Sterling Overnight Index Average Rate ("SONIA") the Euro Short-term Rate ("ESTR") the Tokyo Overnight Average Rate ("TONA") and the Swiss Average Overnight ("SARON") as the recommended alternative benchmark rates.

The Firm established a Firmwide LIBOR Transition program in early 2018. The Firmwide CFO and the CEO of the Corporate & Investment Bank ("CIB") oversee the program as senior sponsors. In 2021, the Firm continued to work towards reducing its exposure to IBOR-referencing contracts, including derivatives, bilateral and syndicated loans, securities, and debt and preferred stock issuances, to meet the industry milestones and recommendations published by National Working Groups ("NWG"). In 2021, the Firm prioritized contract remediation for those currencies and tenors of LIBOR for which publication ceased on December 31, 2021.

The Firm has made significant progress towards reducing its exposure to IBOR-referencing contracts, including in derivatives, bilateral and syndicated loans, securities, and debt and preferred stock issuances, and is on-track to meet its internal milestones for contract remediation as well as the industry milestones and recommendations published by National Working Groups. In connection with the transition from LIBOR, as of December 31, 2021 the Firm had remediated substantially all of the notional amount of its bilateral derivatives contracts linked to non-U.S. dollar LIBOR, and substantially all of its non-U.S. dollar LIBOR linked loans. During the fourth quarter of 2021, the principal central counterparties ("CCPs") converted cleared derivatives contracts linked to non-U.S. dollar LIBOR to replacement rates before the cessation of the publication of those LIBORs on December 31, 2021. The Firm continues its client outreach with respect to U.S. dollar LIBOR referencing contracts.

The Federal Reserve ("Fed"), the Office of the Comptroller of the Currency ("OCC") and the Federal Deposit Insurance Corporation ("FDIC") and the FCA have encouraged banks to cease entering into new contracts that use U.S. dollar LIBOR as a reference rate by December 31, 2021, and in connection with this, the Firm now offers various floating rate products, and provides and arranged various types of floating rate debt financings, that reference the Secured Overnight Financing Rate ("SOFR") across its businesses. The Firm will continue to engage with clients in relation to USD LIBOR transition in 2022 and will continue to support clients as they transition to SOFR.

On August 27, 2020, the International Accounting Standards Board ("IASB") issued guidance that provides practical expedients to contracts and hedge accounting relationships affected by the reference rate reform. These practical expedients are intended to simplify the operational impact of applying existing IFRS requirements to transactions impacted by the reference rate reform, and the Company applied the practical expedients from 1 January 2021.

The table below shows the outstanding principal amounts of non-derivative financial instruments, the gross notional value of derivative financial instruments and the contractual amounts of off-balance sheet exposures held by the Company as at December 31, 2021 that are subject to IBOR reform that have yet to transition. The table includes financial instruments with a contractual maturity date later than the relevant agreed IBOR cessation date and includes contracts that have been changed to incorporate the new alternative reference rates but which have yet to become effective as at 31 December 2021. Substantially all of these contracts have fallback mechanisms that will transition the IBOR-referencing contracts to the new alternative reference rates at the next fixing date subsequent to 31 December 2021.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Market risk (audited) (continued)

Interbank offered rate ("IBOR") Transition (continued)

As at 31 December 2021	CHF LIBOR	EUR EONIA	EUR LIBOR	GBP ICE Swap Rate/CMS	GBP LIBOR	JPY LIBOR	SEK STIBOR	USD ICE Swap rate/CMS	USD LIBOR	ZAR JIBAR	Other ^(c)
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Non derivative financial assets (outstanding principal amount):											
Loans	—	—	—	—	69,203	—	—	—	437,760	—	—
Securities purchased under agreements to resell	—	60,029	—	—	—	—	—	—	5,276,290	30,637	—
Trading securities	1,116	—	311,781	154,069	524,604	19,113	820,683	6,024,191	14,315,782	25,039	153,714
Total non-derivative financial assets	1,116	60,029	311,781	154,069	593,807	19,113	820,683	6,024,191	20,029,832	55,676	153,714
Non-derivative financial liabilities (outstanding principal amount):											
Securities sold under agreements to repurchase	—	65,055	—	—	—	—	—	—	—	—	—
Trading securities	22	—	315,036	147,747	77,594	19,113	820,683	5,939,612	13,715,405	6,142	152,477
Debt issuance	—	—	—	—	—	—	—	285,590	190,566	—	869
Total non-derivative financial liabilities	22	65,055	315,036	147,747	77,594	19,113	820,683	6,225,202	13,905,971	6,142	153,346
Derivative financial instruments (gross notional value^(a))											
Interest rate derivative - exchange traded	—	—	—	—	—	—	—	—	67,013,000	—	—
Interest rate derivatives - OTC (3rd party)	4,513,610	12,684,559	113,700	5,661,781	65,280,102	2,221,256	6,408,029	70,211,147	464,363,013	20,100,592	7,644,812
Interest rate derivatives - OTC (Intercompany)	4,395,752	28,991,407	113,700	5,673,320	82,684,172	2,607,714	7,585,008	82,825,080	410,024,868	16,925,460	1,728,566
Total derivative financial instruments	8,909,362	41,675,966	227,400	11,335,101	147,964,274	4,828,970	13,993,037	153,036,227	941,400,881	37,026,052	9,373,378
Off-balance sheet exposures (contractual amount^(b))											
Loan commitments	—	—	—	—	198,475	—	41,095	—	2,197,077	—	41,095
Total off-balance sheet	—	—	—	—	198,475	—	41,095	—	2,197,077	—	41,095

(a) Represents the sum of gross long and gross short notional derivative contracts

(b) Represents the stated contractual amounts which include both drawn and unused portions of commitments

(c) JPY TIBOR, SGD SIBOR, SGD SOR, THB THBFX, DKK CIBOR, CHF ICE Swap Rate/C & JPY Swap rate

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Structural interest rate risk

Interest Rate Risk in the Banking Book ("IRRBB") is defined as interest rate risk resulting from the firm's traditional banking activities (accrual accounted on- and off-balance sheet positions) which include the extension of loans and credit facilities, taking deposits and issuing debt (collectively referred to as 'non-trading' activities); and also the impact from Treasury and Chief Investment Office ("T/CIO") related activities. IRR from non-trading activities can occur due to a variety of factors, including but not limited to:

- Differences in the timing of re-pricing of assets, liabilities and off-balance sheet instruments.
- Differences in the balances of assets, liabilities and off-balance sheet instruments that re-price at the same time.
- Differences in the amounts by which short-term and long-term market interest rates change.
- Impact of changes in the duration of various assets, liabilities or off-balance sheet instruments as interest rates change.

Oversight and governance

Governance for Firmwide IRR is defined in the IRR Management policy which is approved by the Credit Risk Officer for CIO, Treasury and Corporate ("CTC CRO"). The CIO, Treasury and Other Corporate Risk Committee ("CTC RC") is the governing committee with respect to IRRBB. The CTC RC is responsible for, but not limited to:

- Reviews the IRR Management policy.
- Reviews the IRR profile of the Firm and adherence to limits.
- Reviews significant changes to IRR models and/or assumptions.
- Provides Governance on legal entity related exposures.

IRR exposures, significant models and/or assumptions including the changes are also reviewed by the Firmwide Asset and Liability Committee ("ALCO"), chaired by the Firm's Treasurer and Chief Investment Officer, and supported by the Treasurer Committee. The Firmwide ALCO provides a framework for overseeing the IRR of LOBs, foreign jurisdictions and key legal entities to appropriate LOB ALCOs, Country ALCOs and other local governance bodies. In addition, oversight of structural interest rate risk is managed through IRR Management, an independent risk management function reporting to the CTC CRO. IRR Management is responsible for, but not limited to:

- Measuring and monitoring IRR and establishing limits.
- Creating and maintaining governance over IRR assumption.
- Establishing and monitoring metrics to manage interest rate risk, which may include, but are not limited to Earnings at Risk, Duration of Equity, Economic Value Sensitivity.
- Defining and monitoring interest rate risk limits; signatories to limits include representatives from both the first and second lines of defense.
- Developing a process to classify, monitor and report limit breaches.
- Performing independent review of the firm's interest rate risk activities.
- Creating and maintaining governance over interest rate risk assumptions.
- Overseeing interest rate risk of LOBs net of Funds Transfer Pricing.
- Providing independent oversight and governance for applicable legal entities.

The Firmwide risk framework applies to the Company as described above.

Risk Identification and Measurement

T/CIO manages IRRBB exposure on behalf of the Firm by identifying, measuring, modelling and monitoring IRR across the Firm's balance sheet. T/CIO identifies and understands material balance sheet impacts of new initiatives and products and executes market transactions to manage IRR through T/CIO investment portfolio's positions. Execution by T/CIO will be based on parameters established by senior management, per the T/CIO Investment Policy. LOBs are responsible for developing and monitoring the appropriateness of LOB specific IRR modelling assumptions.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Structural interest rate risk (continued)

Measures to manage IRR include:

- Earnings-at-risk ("EAR"): Primary metric used to gauge the Firm's shorter term IRR exposure is EAR, or the sensitivity of pre-tax income to changes in interest rates over a rolling 12 months compared to a base scenario.
- Economic Value Sensitivity ("EVS"): An additional Firmwide metric utilised to determine changes in asset/liability values due to changes in interest rates. Economic Value of Equity ("EVE") sums the present value of expected future cash-flows across the firm's balance sheet. EVS measures the change in EVE.

Operational risk

Operational risk is the risk of an adverse outcome resulting from inadequate or failed internal processes or systems; human factors; or external events impacting the Firm's processes or systems. Operational Risk includes compliance, conduct, legal, and estimations and model risk.

Operational risk is inherent in the Company's activities and can manifest itself in various ways, including fraudulent acts, business disruptions (including those caused by extraordinary events beyond the Firm's control), cyber attacks, inappropriate employee behaviour, failure to comply with applicable laws, rules and regulations or failure of vendors or other third party providers to perform in accordance with their agreements. Operational Risk Management attempts to manage operational risk at appropriate levels in light of the Company's financial position, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

Operational Risk Management Framework

The Company leverages the Firm's Compliance, Conduct, and Operational Risk ("CCOR") Management Framework which is designed to enable the Firm to govern, identify, measure, monitor and test, manage and report on the Firm's operational risk.

Operational risk can manifest itself in various ways. Operational risk subcategories such as Compliance risk, Conduct risk, Legal risk and Estimations and Model risks as well as other operational risks, can lead to losses which are captured through the Firm's operational risk measurement processes. More information on these risk subcategories can be found in the respective risk management sections. Details on cybersecurity risk, business and technology resiliency risk, payment fraud risk, together with third-party outsourcing risk, are provided below.

Cybersecurity risk

Cybersecurity risk is the risk of the Firm and Company's exposure to harm or loss resulting from misuse or abuse of technology by malicious actors. Cybersecurity risk is an important and continuously evolving focus for the Firm. Significant resources are devoted to protecting and enhancing the security of computer systems, software, networks, storage devices and other technology assets. The Firm's security efforts are designed to protect against, among other things, cybersecurity attacks by unauthorised parties attempting to obtain access to confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage.

Ongoing business expansions may expose the Firm to potential new threats as well as expanded regulatory scrutiny including the introduction of new cybersecurity requirements. The Firm continues to make significant investments in enhancing its cyber defence capabilities and to strengthen its partnerships with the appropriate government and law enforcement agencies and other businesses in order to understand the full spectrum of cybersecurity risks in the operating environment, enhance defences and improve resiliency against cybersecurity threats. The Firm actively participates in discussions and simulations of cybersecurity risks both internally and with law enforcement, government officials, peer and industry groups, and has significantly increased efforts to educate employees and certain clients on the topic of cybersecurity risks.

Third parties with which the Firm does business or that facilitate the Firm's business activities (e.g., vendors, supply chain, exchanges, clearing houses, central depositories, and financial intermediaries) are also sources of cybersecurity risk to the Firm. Third party cybersecurity incidents such as system breakdowns or failures, misconduct by the employees of such parties, or cyberattacks, including ransomware and supply-chain compromises could affect their ability to deliver a product or service to the Firm or result in lost or compromised information of the Firm or its clients. Clients are also sources of cybersecurity risk to the Firm and its information assets, particularly when their activities and systems are beyond the Firm's own security and control systems. As a result, the Firm engages in regular and ongoing discussions with certain vendors and clients regarding cybersecurity risks and opportunities to improve security. However, where cybersecurity incidents occur as a result of client failures to maintain the security of their own systems and processes, clients are responsible for losses incurred.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Operational risk (continued)

Cybersecurity risk (continued)

To protect the confidentiality, integrity and availability of the Firm's infrastructure, resources and information, the Firm maintains a cybersecurity programme designed to prevent, detect, and respond to cyberattacks. The Audit Committee is periodically provide with updates on the Firm's Information Security Programme, recommended changes, cybersecurity policies and practices, ongoing efforts to improve security, as well as its efforts regarding significant cybersecurity events. In addition, the Firm has a detailed cybersecurity incident response plan ("IRP") designed to enable the Firm to respond to attempted cybersecurity incidents, coordinate such responses with law enforcement and other government agencies, and notify clients and customers, as applicable. Among other key focus areas, the IRP is designed to mitigate the risk of insider trading connected to a cybersecurity incident, and includes various escalation points. Due to the impact of the COVID-19 pandemic, the Firm increased the use of remote access and video conferencing solutions provided by third parties to facilitate remote work. As a result the Firm deployed additional precautionary measures and controls to mitigate cybersecurity risks and those measure and controls remain in place.

The Cybersecurity and Technology Control functions are responsible for governance and oversight of the Firm's Information Security Programme. In partnership with the Firm's LOBs and Corporate, the Cybersecurity and Technology Control organisation identifies information security risk issues and oversees programmes for the technological protection of the Firm's information resources including applications, infrastructure as well as confidential and personal information related to the Firm's employees and customers. The Cybersecurity and Technology Controls organisation consists of business aligned information security managers that are supported within the organization by the following products that execute the Information Security Program for the Firm:

- Cyber Operations
- Identity & Access Management
- Governance, Risk & Controls
- Global Technology Product Security

The Global Cybersecurity and Technology Control governance structure is designed to identify, escalate, and mitigate information security risks. This structure uses key governance forums to disseminate information and monitor technology efforts. These forums are established at multiple levels throughout the Firm and include representatives from each LOB and Corporate. The forums are used to escalate information security risks or other matters as appropriate.

The Independent Risk Management ("IRM") function provides oversight of the activities designed to identify, assess, measure, and mitigate cybersecurity risk.

The Firm's Security Awareness Programme includes training that reinforces the Firm's Information Technology Risk and Security Management policies, standards and practices, as well as the expectation that employees comply with these policies. The Security Awareness Programme engages personnel through training on how to identify potential cybersecurity risks and protect the Firm's resources and information. This training is mandatory for all employees globally on an periodic basis, and it is supplemented by Firmwide testing initiatives, including periodic phishing tests. The Firm provides specialized security training for certain employee roles such as application developers. Finally, the Firm's Global Privacy programme requires all employees to take periodic awareness training on data privacy. This privacy-focused training includes information about confidentiality and security, as well as responding to unauthorised access to or use of information.

Business and technology resiliency risk

Business disruptions can occur due to forces beyond the Firm's control such as the spread of infectious diseases or pandemics, severe weather, power or telecommunications loss, failure of a third party to provide expected services, cyberattacks and, terrorism. The Firmwide Business Resiliency Programme is designed to enable the Firm and Company to prepare for, adapt to, withstand and recover from business disruptions including occurrence of an extraordinary event beyond its control that may impact critical business functions and supporting assets (i.e., staff, technology, facilities and third parties). The programme includes governance, awareness training, planning and testing of recovery strategies, as well as strategic and tactical initiatives to identify, assess, and manage business interruption and public safety risks.

For the past 2 years, the Firm has closely monitored COVID-19 developments and implemented various protocols to meet its standards and UK regulatory expectations. Those protocols have evolved as the virus has evolved. As of December 2021, the UK Government has started to relax some public health measures. The Firm continues to monitor the situation and will adapt its own measures based on changes to the public health guidance and the needs of the business. However, the Firm will maintain readiness to reintroduce measures if appropriate.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Operational risk (continued)

Payment fraud risk

Payment fraud risk is the risk of external and internal parties unlawfully obtaining personal monetary benefit through misdirected or otherwise improper payment. The risk of payment fraud normalized in 2021 since the heightened levels experienced during earlier stages of the COVID-19 pandemic. The Firm continues to employ various controls for managing payment fraud risk as well as providing employee and client education and awareness trainings.

Third-party outsourcing risk

The Firm's Third-Party Oversight ("TPO") and Inter-affiliates Oversight ("IAO") frameworks assist the LOBs and Corporate in selecting, documenting, onboarding, monitoring and managing their supplier relationships including services provided by affiliates. The objectives of the TPO framework are to hold suppliers and other third parties to a high level of operational performance and to mitigate key risks including data loss and business disruption. The Corporate Third-Party Oversight group is responsible for Firmwide training, monitoring, reporting and standards.

Compliance risk

Compliance risk, a subcategory of operational risk, is the risk of failing to comply with laws, rules, regulations or codes of conduct and standards of self-regulatory organisations applicable to the business activities of the Firm and the Company.

Each LOB and Corporate within the Company holds primary ownership and accountability for managing compliance risks. The Firm's Compliance Organisation ("Compliance"), which is independent of the line of business, works closely with senior management to provide independent review, monitoring and oversight of business operations with a focus on compliance with the laws, rules and regulatory obligations applicable to the offering of the Firm's products and services to clients and customers.

These compliance risks relate to a wide variety of legal and regulatory obligations, depending on the LOB and the jurisdiction, and include those related to products and services, relationships and interactions with clients and customers, and employee activities. For example, compliance risks include those associated with anti-money laundering compliance, trading activities, market conduct, and complying with the rules and regulations related to the offering of products and services across jurisdictional borders. Compliance risk is also inherent in the Firm's activities, including a failure to exercise an applicable standard of care, to act in the best interest of clients and customers or to treat clients and customers fairly.

Other functions provide oversight of significant regulatory obligations that are specific to their respective areas of responsibility.

Compliance, Conduct, and Operational Risk ("CCOR") Management implements policies and standards designed to govern, identify, measure, monitor and test, manage, and report compliance risk.

Governance and oversight

Compliance is led by the Firm's Chief Compliance Officer ("CCO") and the Firmwide Risk Executive for Operational Risk who reports to the Firm's CRO. The regional CCOs, including the EMEA CCO, are part of this structure. The Firm maintains oversight and coordination of its compliance risk through the implementation of the CCOR Risk Management Framework. In the UK the EMEA CCO is a member of the EMEA Management Committee and the UK Audit & Compliance Committee.

The Firm has a Code of Conduct (the "Code") that sets out the Firm's expectation that employees will conduct themselves with integrity at all times and provides the principles that govern employee conduct with clients, customers, shareholders and one another, as well as with the markets and communities in which the Firm does business. The Code requires employees to promptly report any known or suspected violation of the Code, any internal Firm policy, or any law or regulation applicable to the Firm's business. It also requires employees to report any illegal conduct, or conduct that violates the underlying principles of the Code, by any of the Firm's employees, customers, suppliers, contract workers, business partners, or agents.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Compliance risk (continued)

Governance and oversight (continued)

All newly hired employees are assigned Code training and current employees are periodically assigned Code training on an ongoing basis. Employees are required to affirm their compliance with the Code periodically. Employees can report any potential or actual violations of the Code through the Code Reporting Hotline by phone or the internet. It is administered by an outside service provider. The Code prohibits retaliation against anyone who raises an issue or concern in good faith.

Conduct risk

Conduct risk, a subcategory of operational risk, is the risk that any action or inaction by an employee or employees could lead to unfair client or customer outcomes, impact the integrity of the markets in which the Firm and the Company operates, or compromise the Firm or Company's reputation.

Overview

Each LOB and Corporate is accountable for identifying and managing its conduct risk to provide appropriate engagement, ownership and sustainability of a culture consistent with the Firm's How We Do Business Principles (the "Principles"). The Principles serve as a guide for how employees are expected to conduct themselves. With the Principles serving as a guide, the Firm's Code sets out the Firm's expectations for each employee and provides information and resources to help employees conduct business ethically and in compliance with the laws everywhere the Firm operates. For further discussion of the Code, refer to Compliance Risk Management.

Governance and oversight

The Conduct Risk Program is governed by the Compliance, Conduct, and Operational Risk ("CCOR") Management policy, which establishes the framework for governance, identification, measurement, monitoring and testing, management and reporting conduct risk in the Firm.

The Firm has a senior forum that provides oversight of the Firm's conduct initiatives to develop a more holistic view of conduct risks and to connect key programs across the Firm in order to identify opportunities and emerging areas of focus. This forum is responsible for setting overall program direction for strategic enhancements to the Firm's employee conduct framework and reviewing the consolidated Firmwide Conduct Risk Appetite Assessment.

Conduct risk management encompasses various aspects of people management practices throughout the employee life cycle, including recruiting, onboarding, training and development, performance management, promotion and compensation processes. Each LOB, Treasury and CIO, and designated corporate functions completes an assessment of conduct risk periodically, reviews metrics and issues which may involve conduct risk, and provides business conduct training as appropriate.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Legal risk

Legal risk, a subcategory of operational risk, is the risk of loss primarily caused by the actual or alleged failure to meet legal obligations that arise from the rule of law in jurisdictions in which the Firm and the Company operates, agreements with clients and customers, and products and services offered by the Firm and the Company.

Overview

The global Legal function ("Legal") provides legal services and advice to the Company and the Firm. Legal is responsible for managing the Firm's exposure to legal risk by:

- Managing actual and potential litigation and enforcement matters, including internal reviews and investigations related to such matters.
- Advising on products and services, including contract negotiation and documentation.
- Advising on offering and marketing documents and new business initiatives.
- Managing dispute resolution.
- Interpreting existing laws, rules and regulations, and advising on changes thereto.
- Advising on advocacy in connection with contemplated and proposed laws, rules and regulations.
- Providing legal advice to the LOBs, Corporate Functions and Board.

Legal selects, engages and manages outside counsel for the Firm on all matters in which outside counsel is engaged. In addition, Legal advises the Firm's Conflicts Office which reviews the Firm's wholesale transactions that may have the potential to create conflicts of interest for the Firm.

Governance and oversight

The Firm's General Counsel reports to the CEO and is a member of the Operating Committee, the Firmwide Risk Committee and the Firmwide Control Committee. The Firm's General Counsel and other members of Legal report on significant legal matters to the Firm's Board of Directors and to the Audit Committee. Each region, including EMEA, has a General Counsel who is responsible for managing legal risk across all lines of business and functions in the region. Legal serves on and advises various committees and advises the Firm's LOBs and Corporate on potential reputation risk issues.

Model risk

Estimations and Model risk, a subcategory of operational risk, is the potential for adverse consequences from decisions based on incorrect or misused estimation outputs.

Risk profile

The model risk profile is dependent on the types of models used and their purpose. The model risk will generally increase according to the tiering of the model. As described below in more detail, tiering is based on complexity, exposure and reliance and is intended to capture the risk the model poses to the firm.

Risk management objectives

The model risk management objectives are to identify, monitor, measure where possible and manage model risk as well as defining model risk policies and procedures including the following:

- Robust review of models in order to identify model risks.
- Ensure compensating controls are considered where necessary.
- Perform ongoing performance monitoring of models to ensure that they continue to perform throughout their life.
- Ensure all models are adequately documented and tested.

Approach to risk management

Model risks are owned by the users of the models within the Firm based on the specific purposes of such models. Users and developers of models are responsible for developing, implementing and testing their models, as well as referring models to the Model Risk Governance and Review Group ("MRGR"), for review and approval. Once models have been approved, model users and developers are responsible for maintaining a robust operating environment, and must monitor and evaluate the performance of the models on an ongoing basis. Model users and developers may seek to enhance models in response to changes in the portfolios and in product and market developments, as well as to capture improvements in available modeling techniques and systems capabilities.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Model risk (continued)

Models are tiered based on an internal standard according to their complexity, the exposure associated with the model and the Firm's reliance on the model. This tiering is subject to the approval of the MRGR. In its review of a model, the MRGR considers whether the model is suitable for the specific purposes for which it will be used. When reviewing a model, the MRGR analyzes and challenges the model methodology and the reasonableness of model assumptions and may perform or require additional testing, including back-testing of model outcomes. Model reviews are approved by the appropriate level of management within the MRGR based on the relevant model tier.

Under the Firm's Estimations and Model Risk Management Policy, the MRGR reviews and approves new models, as well as material changes to existing models, prior to their use. In certain circumstances exceptions may be granted to the Firm's policy to allow a model to be used prior to review or approval. The MRGR may also require the user to take appropriate actions to mitigate the model risk if it is to be used in the interim. These actions will depend on the model and may include, for example, limitation of trading activity.

While models are inherently imprecise, the degree of imprecision or uncertainty can be heightened by the market or economic environment. This is particularly true when the current and forecasted environment is significantly different from the historical macroeconomic environments upon which the models were trained, as the Firm has experienced during the early stages of the COVID-19 pandemic. This uncertainty may necessitate a greater degree of judgment and analytics to inform adjustments to model outputs than in typical periods.

Specifically for the Internal Capital Adequacy Assessment Process ("ICAAP"), an additional local EMEA ICAAP Estimations Risk Governance procedure is in place specifying the roles and responsibilities related to model governance within the ICAAP process. As part of this procedure, an inventory of ICAAP estimation methods is maintained.

Reputation risk

Reputation risk is the risk that an action or inaction may negatively impact perception of the Firm's integrity and reduce confidence in the Firm's competence by various constituents, including clients, counterparties, customers, investors, regulators, employees, communities or the broader public. Reputation risk is assessed and defined at the Firmwide level and is applicable to the Company.

Organisation and management

Reputation Risk Management establishes the governance framework for managing reputation risk across the Firm's LOBs and Corporate. As reputation risk is inherently challenging to identify, manage, and quantify, a reputation risk management function is particularly important.

The Firm's reputation risk management function includes the following activities:

- Maintaining a Firmwide Reputation Risk Governance policy and standard consistent with the reputation risk framework.
- Overseeing the governance execution through processes and infrastructure that support consistent identification, escalation, management and monitoring of reputation risk issues Firmwide.

The types of events that result in reputation risk are wide-ranging and may be introduced by the Firm's employees and the clients, customers and counterparties with which the Firm does business. These events could result in financial losses, litigation and regulatory fines, as well as other harm to the Firm.

Governance and oversight

The Reputation Risk Governance policy establishes the principles for managing reputation risk for the Firm. It is the responsibility of employees in each LOB and Corporate to consider the reputation of the Firm when deciding whether to offer a new product, engage in a transaction or client relationship, enter a new jurisdiction, initiate a business process or consider any other activity. Sustainability, social responsibility and environmental impacts are important considerations in assessing the Firm's reputation risk, and are a component of the Firm's reputation risk governance.

Reputation risk issues deemed material are escalated as appropriate.

The Company's CRO is Global Head of Reputation Risk for the CIB.

For escalations reviewed at Reputation Risk Committee, the Business has an obligation to inform the CRO/LERM of the impacted Legal Entity

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Climate-related financial risk

Overview

JPMorgan Chase operates in many regions, countries and communities around the world where its businesses, and the activities of its clients and customers, could be impacted by climate change. Climate change could manifest as a financial risk to JPMorgan Chase either through changes in the physical climate or from the process of transitioning to a low-carbon economy, including changes in climate policy or in the regulation of financial institutions with respect to risks posed by climate change.

Climate-related physical risks include acute weather events, such as hurricanes and floods, and chronic shifts in the climate, such as altered distribution and intensity of rainfall, prolonged droughts or flooding, increased frequency of wildfires, rising sea levels, or a rising heat index. Climate-related physical risks could have adverse financial and other impacts on JPMorgan Chase, both directly on its business and operations and as a result of impacts to its clients and customers, including:

- Declines in asset values, including due to the destruction or degradation of property.
- Reduced availability of insurance.
- Significant interruptions to business operations, including supply chain disruption.
- Systemic changes to geographies, regional economies and sectors, and any resulting population migration or unemployment.

Transition risks arise from the process of adjusting to a low-carbon economy. In addition to possible changes in climate policy and financial regulation, potential transition risks may include economic and other changes engendered by the development of low-carbon technological advances (e.g., electric vehicles and renewable energy) and/or changes in consumer preferences towards low-carbon goods and services. Transition risks could be further accelerated by the occurrence of changes in the physical climate. The possible adverse impacts of transition risks to both JPMorgan Chase and its clients and customers include:

- Sudden devaluation of assets, including unanticipated write-downs ("stranded assets").
- Increased operational and compliance costs driven by changes in climate policy and/or regulations.
- Negative consequences to business models, and the need to make changes in response to those consequences.
- Damage to JPMorgan Chase's reputation, including as a result of any perception that its business practices are contrary to public policy or stakeholder preferences.

Both physical risks and transition risks could have negative impacts on the revenues, financial condition or creditworthiness of JPMorgan's clients and customers, and on its exposure to those clients and customers.

Governance and oversight

The Firm is developing an approach to identify and assess the financial risks from climate change, which can also be leveraged at Company level. To that end, the Firm has established a central Firmwide Risk Executive function for Climate Risk, responsible for developing a unified Climate Risk Framework that can be leveraged by the Company. This is in addition to the multi-year working plan approved by the Board of the Company in 2019, including the Company assigned responsibility for managing climate-related financial risks to a Senior Management Function ("SMF").

As referenced in the Statement of Corporate Governance Arrangements, the EMEA Risk Committee ("ERC") provides oversight of risks inherent in the Firm's business conducted in EMEA or booked into EMEA entities, including the Company. The ERC is chaired by the EMEA Chief Risk Officer (who is also SMF for financial risks from climate change) and is accountable to the EMC and the Risk Committee of the Company. The ERC escalates to the Firmwide Risk Committee and the EMEA HR Control Forum, in addition to the EMC and the relevant legal entity Boards. ERC members include the Company CRO, the Firmwide Risk Executive for Climate Risk, EMEA risk function representatives, and senior business managers from the first line of defense. The EMEA CRO is a member of the EMC and meets with local regulators on a regular basis.

EMEA Regional ESG forums are established to help facilitate the growth of ESG-related business and enable effective risk management and governance. The EMEA ESG Business Forum focuses on providing oversight of the growth of ESG/Green business in the region, promoting business collaboration to increase returns on the Firm's ESG value proposition to clients. It also enable effective communication of the Firmwide ESG strategy (and its continuing evolution) to key regional LOB partners.

The EMEA ESG Governance Forum, co-sponsored by the Head of EMEA ESG, EMEA CRO and EMEA CFO, provides oversight of the Firm's portfolio of ESG initiatives in the region.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Climate-related financial risk (continued)

The EMEA CIB ESG Regulatory Implementation Steering Committee, co-sponsored by the EMEA CFO and CRO, has been established to review all ESG-related regulatory initiatives impacting CIB in EMEA and oversee the implementation for regulatory and prudential requirements from UK & EU regulators and other stakeholders.

Risk Management

A Firmwide Climate Risk Management Framework to identify and assess the financial risks from climate change was developed in 2021, with the expectation of further enhancements in coming years. The framework can also be leveraged at the Company level.

A key principle underpinning the Framework is that climate risk is a risk driver that is being integrated into the firm's existing risk types and is not being treated as a standalone risk type. As a result, climate change is manifesting through and magnifying existing risks types such as credit and investment risk, market risk, liquidity and operational risk. Therefore, climate risk drivers will be captured through existing taxonomies and monitored through existing firmwide, LOB and Company specific risk management and monitoring frameworks as appropriate.

Climate Scenario Analysis

Scenario analysis is a useful tool for understanding risks across a variety of economic, market and other conditions. Scenarios are being developed to monitor a wide range of stress events to give risk managers insight into the drivers of potential impacts. The usage of scenario analysis to better understand climate-related financial risks is a relatively new and rapidly evolving area. The Firm is investing in its capability to model and develop climate-based scenario capabilities and as we develop our knowledge of climate-related drivers and impacts this will enhance our ability to estimate potential impacts.

The Company has conducted scenario analyses for climate-related financial risk. For transition risk, the company utilised assumptions from the International Energy Agency's 2019 Sustainable Development Scenario (IEA SDS) to assess the impacts of an abrupt transition scenario consistent with Paris Agreement goals. The scenario reflects the pace and timing of policy action through changes in the price of carbon emissions. For physical risk, an exposure concentration assessment has been done based on a combination of the industries and country of assets of the clients and counterparties in the portfolio. The Firm and Company will continue to refine their approach of identifying, measuring and assessing climate-related risks and we will be running further exercises in 2022 based on evolving methodologies and scenarios.

Disclosures

The Firm published its 2020 ESG Report in May 2021, which discusses in detail the Firm's approach to managing climate-related risks and capitalising on the opportunities that arise through a transition to a lower carbon economy. This adds to the Firm's inaugural climate risk report in 2019; both reports were informed by the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD") and are available on our website. The Firm's 2021 ESG Report will be released in April 2022, which will include updates on how we are using our business to support the transition to a low carbon economy. The Firm also intends to release a dedicated TCFD report in Q4 2022, which will include further updates on the Firm's climate governance, strategy, risk management, metrics and targets. The Firm is developing capabilities and preparedness towards TCFD-aligned disclosures in line with "The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022" that will apply to the Company from 6th April 2022.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Risk management (continued)

Streamlined Energy and Carbon Reporting (unaudited)

The Streamlined Energy and Carbon Reporting ("SECR") presents the Company's carbon footprint within the UK across Scope 1, 2 and scope 3 business travel emissions, an appropriate intensity metric, the total energy use of electricity, gas and transport fuel and an energy efficiency actions summary taken during the financial year.

The table below shows the Company's energy use and associated Greenhouse Gas ("GHG") emissions aligned to the Greenhouse Gas Protocol.

	2021	2020
Energy consumption used to calculate emissions (kWh) ^{1,5,7}	10,895,461	12,130,692
Emissions from combustion of gas (Scope 1) ,CO _{2e}	140	53
Emissions from combustion of fuel for transport purposes (Scope 1) ,CO _{2e} ²	2	2
Emissions from business travel in rental cars or employee-owned vehicles where Company is responsible for purchasing the fuel (Scope 3) ,CO _{2e} ^{3,7}	2	29
Emissions from purchased electricity (Scope 2, location-based) ,CO _{2e} ⁴	2,164	2,738
Total gross tCO _{2e} based on the above (Location based)	2,308	2,822
Intensity ratio (,CO _{2e} /FTE) (Location based) ⁶	1.11	1.23

¹ Operational approach has been used. GHG Emissions reporting is in line with the GHG Protocol Corporate Accounting and Reporting Standard. The emissions and conversion factor source is from DEFRA, 2021 for all emissions and conversion factors (<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021>). The calculation method is - Activity Data x Emission Factor = GHG emissions. Activity Data x Conversion Factor = kWh consumption. Minor difference between actual and reported GHG emissions might occur due to rounding (not more than 1%).

² Electric consumption for electric vehicles is included within Scope 2 emissions when they are charged onsite.

³ Transport data was calculated from litres and mileage data to kWh and GHG emissions using the method above. When calculating mileage data, average car size factors were applied to calculate emissions. Where a split between petrol and diesel was not available VEH0203 UK vehicle statistics has been used. <https://www.gov.uk/government/statistical-data-sets/veh02-licensed-cars>.

⁴ The Company is committed to working towards carbon neutrality, including sourcing renewable energy for 100% of our power needs, and is contracting all necessary REGOs and offsets to address GHG emissions in order to meet our carbon neutral target. These contracts had not been completed as of the date in which this financial statement was authorised for issue. The above table specifically pertains to the Company. Please refer to page 65 of the Governance Report for more details on the Firm's commitment to becoming carbon neutral.

⁵ As our sites are occupied by employees from different entities of the Firm, we divided the consumption based on the total number of employees working on the specific site and multiplied it by the number of employees of the relevant entity. If the entity has only a few employees on a site the pro-rated consumption is omitted as it is not practical to obtain. Certain transport emissions were also divided by the number of employees employed by the legal entity.

⁶ Based on the nature of our business, as well as following the recommendations of the SECR legislation the Company chose the following intensity metric: Full time employees (FTE) average. Through the comparison of the coming financial years this metric will show the trend of the Company's energy efficiency.

⁷ Occupancy levels continued to be impacted by COVID-19 during 2021. A reduction in the electricity consumption is observed mainly due to the completion of the replacement program of old light bulbs with LED lighting at the Company's main site. An unoccupied floor at another site also led to a slight reduction in the kWh consumption from 2020. In addition, during 2020, because of COVID-19, more people used private cars that contributed to Scope 3 emissions which reduced in 2021.

Energy Efficiency Actions Summary

The Company continues to achieve direct savings in energy and associated carbon emissions, through operational and technological improvements, including;

- Completion in June 2021 of the bulb replacement program which started in 2020 at the Company's main location (UK Headquarters) to switch old bulbs to LED lights.
- Cooling Tower optimisation and control system efficiencies.

Additional indirect energy and carbon emission savings have also been achieved through a range of measures, including;

- A data centre located at one smaller site has been decommissioned reducing our consumption at this location.

For Firmwide Environmental and Social policies please refer to the Non-financial Policies section on page 50 - 52.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Key corporate events

The Company paid a dividend of \$1.75 billion to J.P. Morgan Capital Holdings Limited (\$1,352 dividend per share) on 30 March 2021 (2020: \$250 million).

J.P. Morgan Securities plc - Stockholm Bankfilial was de-registered on 11 May 2021, J.P. Morgan Securities plc - Milan Branch on 23 June 2021 and J.P. Morgan Securities plc Sucursal en Espana on 21 October 2021.

On 24 March 2022, the Board approved an interim dividend of \$2.5 billion to J.P.Morgan Capital Holdings Limited, which is planned to be paid in April 2022.

Non-financial policies

An overview of the environmental and social, human rights, employee, anti-bribery and anti-corruption policy aspects of non-financial reporting is provided below. The Company is subject to these policies which are established at a Firm level. A detailed description of the policies and processes adopted by the Firm may be found on the JPMorgan Chase website.

Environmental and social

The Firm works with clients in nearly every sector of the economy - including corporations, development finance institutions, governments, and investors - to help advance environmental and social best practices and capitalise on opportunities created by the transition to a lower-carbon, more sustainable future. The Firm also strives to promote sustainability, including energy efficiency and renewable energy, across its operations globally.

Assessing its clients' approach to, and performance on, environmental and social issues is an important component of the Firm's risk management process. The Firm's Environmental and Social Policy Framework, which is available on our website, outlines the Firm's approach to evaluating risks posed by environmental and social matters, including certain activities that the Firm will not finance, and sectors and activities subject to environmental and social due diligence.

In May 2021, the Firm announced a \$2.5 trillion Sustainable Development Target, including \$1 trillion in green financing and \$1.5 trillion in community development financing. The Sustainable Development Target is intended to address a broad set of challenges in the developing world and developed countries where social and economic development gaps persist. In October 2021, the firm joined the Net-Zero Banking Alliance to build on its Paris Aligned financing commitment and support the ambition to greater climate action.

The Firm discloses relevant data and metrics on its scope 1, 2 and 3 GHG emissions and energy consumption in its Environmental, Social, and Governance Report, which is published annually and available at www.jpmorganchase.com/esg. For Company specific data and metrics refer to the SECR section on page 49.

The Company supports the Firm's efforts in achieving established targets on environmental and social matters.

Human Rights

The Firm supports fundamental principles of human rights across all lines of business and in each region of the world in which it operates, including EMEA. The Firm believes it is the role of government in every country to protect human rights, and that the Firm has a role to play in promoting respect for human rights.

The Firm's respect for the protection and preservation of human rights is guided by the principles set forth in the United Nations Universal Declaration of Human Rights. Further, the Firm acknowledges the United Nations Guiding Principles on Business and Human Rights as the recognised framework for corporations to respect human rights in their own operations and through business relationships.

To view the Firms' Human Rights Statement, including the UK Modern Slavery Act Firm Statement, please visit <https://www.jpmorganchase.com/corporate/About-JPMC/ab-human-rights.htm>.

J.P. MORGAN SECURITIES PLC

Strategic report (continued)

Non-financial policies (continued)

Corporate employee policy

The Company is committed to providing equal opportunity for all persons in accordance with applicable local law in all areas of people management including recruitment, employment, promotion, training, benefits and compensation. The Company continues to communicate with all employees via the intranet, training and other specific forums. The Company holds an employee opinion survey every 2 years so that the views of employees can be taken into account in making decisions that are likely to affect their interests.

We are an equal opportunity employer and place a high value on diversity and inclusion at our company. We do not discriminate on the basis of any protected attribute, including race, religion, colour, national origin, gender, sexual orientation, gender identity, gender expression, age, marital or veteran status, pregnancy or disability, or any other basis protected under applicable law. In accordance with applicable law, we make reasonable accommodations for applicants' and employees' religious practices and beliefs, as well as any mental health or physical disability needs. Where existing employees become disabled, the Company makes reasonable adjustments in accordance with applicable law.

The Firm operates an employee share scheme for all eligible employees, including those of the Company, to acquire a proprietary and vested interest in the growth and performance of the Firm.

Anti-bribery and Anti-corruption

The Firm has zero tolerance for bribery and corruption, and is deeply committed to participating in international efforts to combat corruption. The Firm has established an Anti-Corruption Policy ("the Policy") that seeks to promote ethical business practices and requires compliance with applicable anti-corruption laws and regulation. The Firm has a published Commitment to Anti-Corruption Compliance which can be found on the JPMorgan Chase website.

The Firm has identified the key areas of corruption-related risk as including:

- The giving or receiving of anything of value, which specifically includes an offer of employment to an individual, or a Firm-funded Sponsorship or Donation
- Third parties acting on the Firm's behalf
- Transactions entered into by the Firm or by funds or accounts controlled or managed by the Firm

The Policy therefore prohibits offering or giving anything of value (including gifts, hospitality, travel, employment, and work experience) and soliciting or accepting anything of value from anyone for a corrupt purpose, such as improper payments or benefits to government officials or private parties for a business advantage. The Policy further prohibits making facilitation payments to cause a government official to perform or expedite performance of a routine duty. Other key features of the Policy include requirements to:

- Obtain Compliance review and approval before offering or giving anything of value to government officials (subject to certain thresholds relating to gifts and business hospitality).
- Keep accurate books, records, and accounts that relate to the business of the Firm, its clients, suppliers, and other partners.
- Conduct due diligence and oversight of intermediaries/agents, joint venture partners, and entities over which the Firm has or may obtain control or influence.
- Report potential corruption-related issues (including through the Code Reporting Hotline), with a prohibition on retaliation against those who make good faith reports.

Any violation of the Policy may result in disciplinary action up to and including dismissal.

J.P. MORGAN SECURITIES PLC

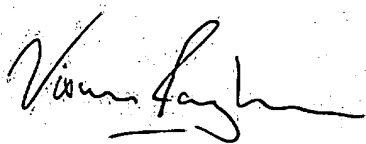
Strategic report (continued)

Non-financial policies (continued)

The Firm's Anti-Corruption Compliance Program ("the Program") is reasonably designed to implement the Policy's requirements, as well as identify, manage, and mitigate the risk of non-compliance with those requirements. Key components of the Program include:

- A governance structure managed by anti-corruption professionals with senior management oversight.
- Training and awareness activities.
- Monitoring and testing for compliance.
- Periodic assessment of corruption risks and control effectiveness.
- Protocols for managing and reporting material issues.

The Strategic Report on pages 5 - 52 was approved by the Board of Directors and signed on behalf of the Board by a Director of the Company.



Viswas Raghavan
Chief Executive Officer
21 April 2022

London

J.P. MORGAN SECURITIES PLC

Directors' report

The directors present their report and the audited financial statements of J.P. Morgan Securities plc (the "Company") for the year ended 31 December 2021. The Company is part of JPMorgan Chase (together with its subsidiaries, "JPMorgan Chase" or the "Firm"). The registered number of the Company is 02711006.

Results and dividends

The results for the year are set out on page 73 and show the Company's profit for the financial year after taxation is \$1.7 billion (2020: \$2.0 billion).

The Company paid a dividend of \$1.75 billion to J.P. Morgan Capital Holdings Limited (\$1,352 dividend per share) on 30 March 2021. (2020: \$250 million).

Please refer to the Strategic report for details on financial risk management, SECR reporting and corporate employee policy.

Post balance sheet events

Dividends

On 24 March 2022, the Board approved an interim dividend of \$2.5 billion to J.P.Morgan Capital Holdings Limited, which is planned to be paid in April 2022.

Ukraine-Russia crisis

The Company has been actively monitoring and taking measures to address developments related to Russia's invasion of Ukraine including reducing exposures and managing key risks in response to increased market volatility. The Firm has engaged and continues to engage with regulators and industry groups to analyse and implement procedures to comply with financial and economic sanctions imposed on Russian entities and individuals in line with applicable sanctions.

Financial risk management

Please refer to the Strategic report for details on financial risk management.

Branches

The Company continues to operate a branch in Switzerland. The branches in Madrid, Milan and Stockholm were de-registered in 2021. The elimination of the Frankfurt and Paris branches of J.P. Morgan Securities plc is planning to be delivered in 2022. Please refer to Note 16.

Other matters

HM Treasury adopted the requirements set out under Capital Requirements Directive IV ("CRD IV") and issued the Capital Requirements Country-by-Country Reporting Regulations 2013. The legislation requires the Company to publish additional information, in respect of the year ended 31 December 2020, by 31 December 2021. This information will be available at the time on the JPMorgan Chase website: <https://jpmorganchase.co.gcs-web.com/financial-information/european-union-eu-disclosures-country>.

Refer to the Strategic report for future outlook (page 6) and corporate employee policy on page 51.

Corporate Governance

For details on corporate governance, please refer to Corporate Governance report on pages 56 - 66.

J.P. MORGAN SECURITIES PLC

Directors' report (continued)

Directors

The directors of the Company who served during the year and up to the date of signing the financial statements were as follows:

Sir Winfried Bischoff	Chairman & Non-Executive Director
Viswas Raghavan	Director & Chief Executive Officer
Clive Adamson	Non-Executive Director
Michael Cole-Fontayn	Non-Executive Director
Timothy Flynn	Non-Executive Director
Julia Meazzo	Non-Executive Director (from 1 February 2021*)
Scott Moeller	Non-Executive Director
Jane Moran	Non-Executive Director
Andrew Cox	Director & Chief Risk Officer (retired 2 December 2021**)
Anna Dunn	Director & Chief Financial Officer
Daniel Pinto	Director
Jason Sippel	Director

* Julia Meazzo was an Executive Director until 31 January 2021.

** Andrew Cox resigned on 2 December 2021.

Directors' interests

None of the directors have any beneficial interest in the Company. The Company is a subsidiary of a company incorporated in England and Wales. The ultimate holding company is a body corporate incorporated outside England and Wales. The directors are not required to notify the Company of any interests in shares of that or any other body incorporated outside England and Wales.

Statement of directors' responsibilities in respect of the financial statements

The directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulation.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that period.

In preparing those financial statements, the directors are required to:

- Select suitable accounting policies and then apply them consistently;
- State whether applicable United Kingdom Accounting Standards, comprising FRS101 have been followed, subject to any material departures disclosed and explained in the financial statements;
- Make judgements and accounting estimates that are reasonable and prudent; and
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The directors are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies Act 2006.

J.P. MORGAN SECURITIES PLC

Directors' report (continued)

Directors' confirmations

Directors consider the annual report and financial statements, taken as a whole, to give a true and fair view of the assets, liabilities, financial position and profit of the Company.

In the case of each director in office at the date the Directors' Report is approved:

- So far as the director is aware, there is no relevant audit information which the Company's auditors are unaware; and
- They have taken all the steps that they ought to have taken as a director in order to make themselves aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

Qualifying third party indemnity provisions

An indemnity is provided to the directors of the Company under the by-laws of JPMorgan Chase against liabilities and associated costs which they could incur in the course of their duties to the Company. The indemnity was in force during the financial year and also at the date of approval of the financial statements and a copy of the by-laws of JPMorgan Chase is kept at the registered office of the Company.

Section 172(1) Companies Act 2006 Statement

Section 172(1) Companies Act 2006 Statement is discussed in the strategic report under the heading "Section 172(1) Companies Act 2006 Statement".

Company secretary

The secretary of the Company who served during the year and up to the date of signing the financial statements was as follows:

Emma Keen (appointed 25 March 2021)

J.P. Morgan Secretaries (UK) Limited

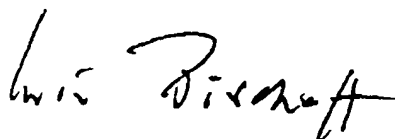
Registered address

25 Bank Street
Canary Wharf
London
E14 5JP
England

Independent auditors

Resolutions to reappoint PricewaterhouseCoopers LLP as auditors of the Company and to authorise the directors to set the auditors' remuneration will be proposed at the annual general meeting.

The Directors Report on pages 53 - 55 was approved by the Board of Directors and signed on behalf of the Board by a Director of the Company.



Sir Winfried Bischoff
Chairman and Non Executive Director
21 April 2022

London

J.P. MORGAN SECURITIES PLC

Governance report

Statement of Corporate Governance Arrangements

This section is the Statement of Corporate Governance Arrangements required under Part 8 of Schedule 7 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008. The statement should be read in conjunction with the strategic report (page 5).

The Company does not apply a single Corporate Governance Code but is required under the UK financial services regulatory regime to comply with a number of different regulations and regulatory expectations that relate directly or indirectly to corporate governance matters. In this Statement, the Company has highlighted the ways in which it complies with these requirements and expectations and, where appropriate, has mapped them to the Wates Corporate Governance Principles for Large Private Companies (the "Wates Principles").

The Company (or, as applicable, the JPMorgan Chase & Co. group (the "Firm" or the "Group")) makes certain disclosures that include information about its governance. A list of those disclosures is at the end of this statement.

In addition, the Company is required to comply with provisions relating to its governance that do not require public disclosures to be made, including:

- EBA/ESMA Joint Guidelines on Management Body Suitability (the "Suitability Guidelines")
- EBA Guidelines on Internal Governance (the "Internal Governance Guidelines")
- The Senior Managers and Certification Regime under the Financial Services and Markets Act 2000 (the "SMCR")
- PRA Supervisory Statement on Corporate governance: Board responsibilities (SS 5/16, as updated in July 2018, the "Supervisory Statement")
- The principle set out in the FCA Handbook (the "FCA Principles")
- The fundamental rules set out in the PRA Rulebook (the "PRA Fundamental Rules")
- Internal Capital Adequacy Assessment Process under the PRA ICAAP rules (the "ICAAP")

Strategy, leadership and culture

The Company has a Board of Directors which is accountable for overall oversight of the Company. The Board of Directors has responsibility for maintaining the safety and soundness of the Company, and for ensuring that the Company is acting within the strategy, values, standards and controls of the wider Group. (*Wates Principles I: Purpose; II: Balance and Diversity; III: Accountability; IV: Opportunity, Risk*)

The directors are expected to act with honesty, integrity and independence of mind in assessing and challenging senior management, and to commit enough time to the role to perform these duties effectively, as required by the Suitability Guidelines. (*Wates Principles II: Balance and Diversity, Effectiveness*)

The Company has a schedule of Matters Reserved for the Board which requires that the Board defines, oversees and is accountable for the implementation of governance arrangements that ensure effective and prudent management. This includes requirements that the Board will approve and oversee the Company's strategic objectives, risk strategy and internal governance, including the segregation of duties in the organisation and the prevention of conflicts of interest. (*Wates Principles I: Strategy; II: Effectiveness; III: Accountability*)

The Board reserves for itself the approval of significant changes to accounting policies and practices, and the approval of annual reports and financial statements. The Board also oversees compliance with regulations. (*Wates Principle III: Integrity of information*)

The Board is supported in its work by four Board Committees, whose responsibilities are delegated by the Board and are described further below, and by the EMC.

- **UK Audit and Compliance Committee** - The UK Audit and Compliance Committee comprises three independent non-executive directors of the Company, chaired by Timothy Flynn. The committee meets at least four times a year (in 2021, five times). Its purpose, delegated by the Board, includes oversight of the integrity of the financial statements; monitoring and reviewing internal financial controls and the effectiveness of the internal audit function; making recommendations with respect to the appointment, appraisal and independence of the external auditor of the Company; and overseeing the process for non-audit services. The Company's auditors attend the committee meetings to report on the status of their audit and any findings. This enables the committee to monitor the effectiveness of the auditors during the year.

J.P. MORGAN SECURITIES PLC

Governance report

Statement of Corporate Governance Arrangements (continued)

Strategy, leadership and culture (continued)

- **J.P. Morgan Securities plc Risk Committee** - The Company's Risk Committee comprises three independent non-executive directors of the Company, chaired during 2021 by Professor Scott Moeller. The committee meets at least four times a year (in 2021, five times). Its purpose, delegated by the Board, is to challenge and contribute to the development of the Company's risk strategy and review any significant risk decisions taken, while aligning the risk appetite of the Company to that of the Firm. The committee's responsibilities include oversight of management's exercise of its responsibility to assess and manage the Company's key risks; an effective system of controls to evaluate and control such risks; capital and liquidity planning and analysis; and an effective risk management function.
- **J.P. Morgan Securities plc Nomination Committee** - The committee comprises three independent non-executive directors of the Company, chaired by Sir Winfried Bischoff. The committee meets at least two times a year (in 2021, six times). Its purpose, delegated by the Board, is to lead the process for Board appointments and to identify and nominate candidates to the Board, having considered the skills, knowledge, experience and diversity of the Board. It is also responsible for succession planning.
- **UK Remuneration Committee** (the "UK RemCo") - The committee comprises three independent non-executives, chaired by Sir Winfried Bischoff. It meets at least two times a year (in 2021, twice plus an executive session). Its purpose, delegated by the Board, is oversight of compliance by the Company with UK and EU remuneration regulations.

Board composition, suitability and effectiveness

In selecting candidates for director of the Board, the Board looks for individuals with strong personal attributes, diverse backgrounds and demonstrated knowledge, skills and expertise in one or more disciplines relevant to the Company's business. The goal is to have a Board consisting of individuals with a combination of skills, experience and personal qualities that will well serve it, its committees, the Firm and its shareholders. (*Wates Principle II: Balance and Diversity, Size and Structure*)

In 2014 the Group set an internal target to achieve 30% representation of women on its Boards in EMEA. The Company has formally adopted this target in a diversity statement approved by the Board and included in the terms of reference of its Nominations Committee. At 31 December 2021, female directors represented 27.3% of the Board. In addition to gender diversity, the statement addresses the need to consider other diverse attributes, including race, educational background and geographical provenance, in selecting Board members, as required by the Suitability Guidelines. (*Wates Principle II: Balance and Diversity*)

The role of the chairman and the chief executive officer are held by different individuals, as expected by the PRA under the Supervisory Statement. (*Wates Principle II: Chair*)

As required by the Suitability Guidelines and expected by the PRA under the Supervisory Statement, the composition and suitability of the Board and the suitability of its members are regularly reviewed, and any resulting recommendations are considered and, where approved, implemented. The Company has appointed six independent non-executive directors to oversee and challenge the executive management.

J.P. MORGAN SECURITIES PLC

Governance report

Board composition, suitability and effectiveness (continued)

The current directors of the Board are:

Sir Winfried Bischoff	Independent Non-Executive Chairman of J.P. Morgan Securities plc, of its Nomination Committee and the UK Remuneration Committee. Member of Risk Committee. Member of International Advisory Board, Akbank TAS, Turkey
Viswas Raghavan	Director and Chief Executive Officer; Chief Executive Officer, EMEA; Global Co-head of Banking and Chair of EMEA Management Committee
Timothy Flynn	Non-Executive Director of JPMorgan Chase & Co. ("JPMC"); Chair of JPMC Audit Committee; member of UK Remuneration Committee Non-Executive Director, Chair of Audit Committee and member of Technology Committee Wal-Mart; Non-Executive Director and member of Compensation Committee United Healthcare Group; Trustee of University of St. Thomas, St. Paul, Minnesota
Professor Scott Moeller	Independent Non-Executive Director and Chairman of the Risk Committee; Member of the Nomination Committee. Director, M&A Research Centre, Bayes Business School Non-Executive Deputy Chairman, Aufsichtsrat (Supervisory Board) of Investors Marketing AG Executive Director of Moeller Schwartz Ltd.
Michael Cole-Fontayn (appointed 19 February 2021)	Independent Non-Executive Director. Director, Ranmore Strategic Advisory Ltd. Director, Engage With China Limited Director, The Charlie Waller Memorial Trust Chairman, Chartered Institute for Securities & Investment Independent Director, FICC Markets Standards Board Independent Director, Merchant Taylor's Catering Company
Jane Moran	Independent Non-Executive Director and member of the Nomination Committee and UK Audit and Compliance Committee. Director, Jane Moran Limited
Clive Adamson	Independent Non-Executive Director and member of the Risk Committee, UK Audit and Compliance Committee and UK Remuneration Committee. Non-Executive Director and Chair Board Risk and Capital Committee Prudential Assurance Company Limited. Non-Executive Director and Chair of the Board Risk Committee M&G plc. Senior Independent Director and Chair of the Audit and Risk Committee Ashmore Group plc. Senior Advisor, McKinsey & Company
Julia Meazzo	Non-Executive Director; Former Head of Human Resources, EMEA
Daniel Pinto	Director; President and Chief Operating Officer for JPMorgan Chase & Co; Chief Executive Officer of Corporate and Investment Bank
Andrew Cox (until 2 December 2021)	Director and Chief Risk Officer; Head of CIB Reputational Risk and Risk Executive for Underwriting and Due Diligence
Anna Dunn	Director; Chief Financial Officer, EMEA
Jason Sippel	Director; Head of Global Equities

(Wates Principle II: Balance and Diversity, Size and Structure)

Executive governance

A regional governance structure has been established to allow the Board to delegate certain matters, not included in the Matters Reserved for the Board, to a governance framework. The Board monitors and periodically assesses the effectiveness of this governance framework and takes appropriate steps to address any deficiencies. The Board may also delegate levels of authority to senior management and has responsibility for providing effective oversight of these individuals. *(Wates Principle III: Accountability)*

The Board delegates certain matters to a number of key regional committees, including for regional risk control and oversight. The EMEA governance framework connects legal entity, line of business and global governance structures. The key committees of relevance are the EMEA Management Committee, the EMEA Risk Committee, the EMEA Regional Oversight Committee, the EMEA Assets and Liabilities Committee and the EMEA Capital Committee. *(Wates Principle IV: Risk)*

J.P. MORGAN SECURITIES PLC

Governance report

Executive governance (continued)

The Company is required under the Senior Managers and Certification Regime ("SMCR") to submit a Management Responsibilities Map to the PRA, which includes detailed descriptions of the firmwide, regional and legal entity governance committees and the delegation, reporting and escalation lines between them. This information is also included in the ICAAP submitted to the PRA by the Company's regional parent, J.P. Morgan Capital Holdings Limited. These regulatory submissions allow the PRA to review the Company's governance arrangements and facilitate an open dialogue with the PRA on the effectiveness of those arrangements. (*Wates Principle III: Committees; VI: Stakeholders*)

Board and director responsibilities

In addition to their duties under the Companies Act 2006, the Company's directors have responsibilities under the SMCR. The directors who hold executive positions or who are the chair of the Board or a Board committee have been approved and registered as Senior Managers by the PRA and FCA. The SMCR requires that each of these directors sets out their responsibilities (including any prescribed responsibilities under SMCR) in a Statement of Responsibilities; these are then aggregated and mapped, together with the responsibilities of non-director Senior Managers, into a Management Responsibilities Map. The Statements of Responsibilities and the Management Responsibilities Map are periodically updated and filed with the regulators when any material change is made.

Non-executive directors who are not Senior Managers are notified to the regulators and are subject to certain conduct rules in the FCA Handbook and the PRA Rulebook.

The Firm has established a Global Corporate Governance Policy that sets out the expectations that the Firm has of the directors of the material entities within the Firm; this policy applies to the Company. Its provisions cover, among other things, Board meeting attendance and Board composition. The policy seeks to establish an internal governance framework, as set out in the Internal Governance Guidelines.

(*Wates Principles II: Size and Structure, Effectiveness; III: Accountability*)

Risk management and long-term sustainability

Risk Management Framework

Risk is an inherent part of JPMorgan Chase's business activities. When the Firm extends a consumer or wholesale loan, advises customers and clients on their investment decisions, makes markets in securities, or offers other products or services, the Firm takes on some degree of risk. The Firm's overall objective is to manage its businesses, and the associated risks, in a manner that balances serving the interest of its clients, customers and investors and protects the safety and soundness of the Firm.

The Firm follows a disciplined and balanced compensation framework with strong internal governance and independent oversight by the Board of Directors (see *Remuneration* below).

The Firm's risk governance and oversight framework is managed on a Firmwide basis. The Firm has an Independent Risk Management ("IRM") function, which consists of the Risk Management and Compliance organizations. The Chief Executive Officer ("CEO") appoints, subject to approval by the Risk Committee of the Board ("Board Risk Committee"), the Firm's Chief Risk Officer ("CRO") to lead the IRM organization and manage the risk governance structure of the Firm.

The Firm relies upon each area of the Firm giving rise to risk to operate within the parameters identified by the IRM function, and within its own management-identified risk and control standards. Each LOB and Treasury & Chief Investment Office, inclusive of their aligned Operations, Technology and Control Management are the Firm's "first line of defense" and own the identification of risks, as well as the design and execution of controls, inclusive of IRM-specified controls, to manage those risks. The first line of defense is responsible for adherence to applicable laws, rules and regulations and for the implementation of the risk management structure (which may include policy, standards, limits, thresholds and controls) established by IRM.

The IRM function is independent of the businesses and is the Firm's "second line of defense". The IRM function independently assesses and challenges the first line of defense risk management practices. IRM is also responsible for its own adherence to applicable laws, rules and regulations and for the implementation of policies and standards established by IRM with respect to its own processes.

J.P. MORGAN SECURITIES PLC

Governance report

Risk management and long-term sustainability (continued)

Risk Management Framework (continued)

Internal Audit is an Independent function that provides objective assessment on the adequacy and effectiveness of Firmwide processes, controls, governance and risk management as the "third line of defense." The Internal Audit Function is headed by the General Auditor, who reports to the Audit Committee and administratively to the CEO.

In addition, there are other functions that contribute to the firmwide control environment that are not considered part of a particular line of defense including Finance, Human Resources and Legal.

(Wates Principle IV: Risk)

Risk Management Organisation

The independent status of the IRM function is supported by a governance structure that provides for escalation of risk issues to senior management, the Firmwide Risk Committee, and the Board of Directors, as appropriate.

The firm places key reliance on LOBs and Corporate areas for identifying and documenting material risks, and for managing, controlling, monitoring and escalating risks as appropriate and in accordance with IRM standards or LOB/Corporate area procedures. Senior management and each responsible individual in the LOBs and Corporate areas are responsible for identifying, managing and escalating, as appropriate, risk matters at a minimum to meet IRM standards in addition to any LOB/Function established procedures.

Each LOB and corporate function must establish the appropriate committee structure, as necessary, to provide escalation channels for issues relating to risk at the LOB, sub-LOB, regional and/or corporate function level.

The Firmwide Risk Committee ("FRC") is the firm's highest management-level risk committee. It provides oversight of the risks inherent in the firm's businesses and serves as an escalation point for risk topics and issues raised by underlying committees and/or FRC members.

In addition to the governance bodies described above, the firm has other forums in the Finance division and at the LOB, regional and local office levels, where risk-related topics are discussed and escalated, as necessary. The membership of these committees is comprised of senior management of the firm including representation from the LOB and various functions. These committees may have other sub-committees as deemed necessary to deliver against the escalation mandate. *(Pillar 3 Disclosures; Wates Principles III: Committees; IV: Risk, Responsibilities)*

Global Legal Entity Risk Governance

JPMorgan Chase conducts its businesses through Legal Entities ("LEs") located across different jurisdictions globally. It is incumbent on lines of business and corporate functions to manage risk at the level of the LE and to comply with associated regulatory expectations. The Risk Management and Compliance ("RM&C") organization has established the RM&C LE Framework.

The LE Forum is the governing body for the RM&C LE Frameworks, inclusive of Risk Management and Compliance, Conduct and Operational Risk ("CCOR") and acts as a Project Steering Group for agreeing to decisions, assumptions, milestones and implementation across the regions.

The LE Risk Forum exercises oversight and control of the legal entity risk management and governance standards across all regions.

Risk Management oversight of LEs is executed according to the risk profile of a LE. The risk profile of a LE is derived by applying the LE Risk Tiering methodology, the result of which will determine a LE's 'Risk Tier'. Risk Tiering comprises four categories ranging from one to four, with Risk Tier one representing the highest requirement for LE Risk governance and oversight. The tiering methodology is comprised of qualitative and quantitative elements and a different level of oversight is established for each Tier, driven by a range of internal and external risk governance requirements. The core and recommended governance standards have been created for each Tier of governance. The Company has been classified as a Risk tier 1 LE under this framework.

J.P. MORGAN SECURITIES PLC

Governance report

Risk management and long-term sustainability (continued)

Regional Risk Governance

To complement the global line of business structure, there is a regional governance construct as below:

- The ERC provides oversight of the risks inherent in the Firm's business conducted in EMEA or booked into EMEA entities and relevant branches as well as EMEA branches of ex-EMEA firms.
- The ERC is accountable to the EMC and the Boards, Risk Committees and Oversight Committees of the relevant legal entities. It reports to the FRC, the HR Control Forum, in addition to the EMC and the relevant legal entity Boards.
- The EMEA CRO leads the Risk Management function in the region and chairs the ERC. The EMEA CRO is a member of the EMC and meets with local regulators on a regular basis.

Whilst J.P. Morgan has established a comprehensive firmwide risk policy framework, this is supplemented as required by legal entity-specific risk policies, which are approved by the relevant entity Boards and Risk Committees.

(Wates Principle IV: Responsibilities)

Risk Appetite

The Firm's overall risk appetite is established by management taking into consideration the Firm's capital and liquidity positions, earnings power, and diversified business model. The Risk Appetite framework is a tool to measure the capacity to take risk and is expressed through qualitative factors and quantitative parameters at the Firm and/or LOB levels, including quantitative parameters on stressed net income, capital, liquidity risk, credit risk, market risk and structural interest rate risk. Performance against these parameters informs management's strategic decisions and is reported to the FRC and JPMC Board Risk Committee.

The Company has its own risk appetite policy including quantitative and qualitative parameters leveraging the Firm's framework and approved annually by its Board. The ERC and the Company's Board Risk Committee review the risk appetite parameters quarterly *(Wates Principle I: Strategy; Wates Principle IV: Opportunity, Risk, Responsibilities)*

Internal Capital Adequacy Assessment Process ("ICAAP")

The Company completes an ICAAP on a periodic basis (which forms part of the ICAAP submitted to the PRA by J.P. Morgan Capital Holdings Limited), which provides management with a view of the impact of severe and unexpected events on earnings, risk-weighted assets and capital. The Company's ICAAP integrates stress testing protocols with capital planning. The process assesses the potential impact of alternative economic and business scenarios on the Company's earnings, capital resources, risk-weighted assets and balance sheet. These scenarios are articulated in terms of macroeconomic factors, which are key drivers of business results; global market shocks, which generate short-term but severe trading losses; and idiosyncratic operational risk events. The scenarios are intended to capture and stress key vulnerabilities and idiosyncratic risks facing the entities in scope. However, when defining a broad range of scenarios, realised events can always be worse. ICAAP results are reviewed by management and challenged and approved by the Company's Board. *(Wates Principle IV: Risk, Responsibilities; VI: Stakeholders)*

New Business Initiatives

For new products and services, failure to identify new or changed risks may expose the Firm to financial loss or harm its reputation. Accordingly, the New Business Initiative Approval ("NBIA") policy provides a framework that governs the review and approval of new or materially changed products and services, while making sure that risks are identified, measured, monitored and controlled. LOBs are authorised to introduce new products, services and processes and are responsible for the new products and services they introduce.

Under the NBIA policy, the business is required to undertake an analysis of the economic, regulatory or legal entity capital impact of the new business, as appropriate. Signoffs for NBIAs impacting the Company include Compliance, Legal, Risk, Operational Risk, Finance, Corporate Tax, Treasury, Technology and Operations. *(Wates Principle IV: Opportunity, Risk, Responsibilities)*

J.P. MORGAN SECURITIES PLC

Governance report

Remuneration

Compensation Philosophy

The Firm's well-established compensation philosophy provides guiding principles that drive compensation-related decision-making across all levels of the Firm, including the Company. The Firm strives to clearly communicate its compensation philosophy to promote firmwide fairness and consistency.

The table below sets forth a summary of that philosophy:

Compensation philosophy	
Tying pay to performance and aligning with shareholders' interests	<ul style="list-style-type: none"> In making compensation-related decisions, the Firm focuses on long-term, risk-adjusted performance (including assessment of performance by the Firm's risk and control professionals) and rewards behaviours that generate sustained value for the Firm. This means compensation should not be overly formulaic, rigid or focused on the short term.
Encouraging a shared success culture	<ul style="list-style-type: none"> Teamwork should be encouraged and rewarded to foster a "shared success" culture. Contributions should be considered across the Firm, within business units, and at an individual level when evaluating an employee's performance.
Attracting and retaining top talent	<ul style="list-style-type: none"> The Firm's long-term success depends on the talents of its employees. The Firm's compensation system plays a significant role in its ability to attract, properly motivate and retain top talent. Competitive and reasonable compensation should help attract and retain the best talent to grow and sustain the Firm's business.
Integrating risk management and compensation	<ul style="list-style-type: none"> Risk management, compensation recovery, and repayment policies should be robust and disciplined enough to deter excessive risk-taking. Conduct matters should be reviewed following Firmwide frameworks. Recoupment policies include recovery of cash and equity compensation. The Firm's pay practices must comply with applicable rules and regulations, both in the U.S. and worldwide.
No special perquisites and non-performance based compensation	<ul style="list-style-type: none"> Compensation should be straightforward and consist primarily of cash and equity incentives. The Firm does not have special supplemental retirement or other special benefits just for executives, nor does it have any change in control agreements, golden parachutes, merger bonuses, or other special severance benefit arrangements for executives.
Maintaining strong governance	<ul style="list-style-type: none"> Strong corporate governance is fostered by independent oversight by the Board of J.P. Morgan Chase & Co. of the executive compensation program, including defining the Firm's compensation philosophy, reviewing and approving the Firm's overall incentive compensation pools, and approving compensation for the Operating Committee, including the terms of compensation awards. The Firm has a rigorous process in place to review risk, control and conduct issues at the Firm, line of business, function, and region level, which can and has led to impacts on compensation pools as well as reductions in compensation at the individual level, in addition to other employee actions.
Transparency with shareholders	<ul style="list-style-type: none"> Transparency to shareholders regarding the Firm's executive compensation program is important. The Firm discloses all material terms of its executive pay program, and any actions on the part of the Firm in response to significant events, as appropriate.

(Wates Principle V: Setting remuneration, Policies)

J.P. MORGAN SECURITIES PLC

Governance report

Remuneration (continued)

Alignment of practices with compensation philosophy

The Group believes the effectiveness of its compensation program is dependent on the alignment of sound pay-for-performance practices with its compensation philosophy as illustrated in the table below:

Alignment of pay practices with compensation philosophy	
Principles-based compensation philosophy Guiding principles that drive compensation-related decision-making across all levels of the Firm.	Pay-at-Risk Appropriately balanced short-, medium-, and long-term incentives that are linked to long-term, sustainable value, safety and soundness.
Strong Clawback Provisions Comprehensive recovery provisions enable the Firm to cancel or reduce unvested awards and require repayment of previously paid compensation, if appropriate.	Robust anti-hedging/anti-pledging provisions Strict prohibition on hedging and pledging of unvested awards and on shares owned.
Risk, Controls and Conduct impacts pay In making pay decisions, the Firm considers material risk, controls and conduct issues and makes adjustments to compensation, when appropriate.	Robust Shareholder Engagement Each year, the Board of J.P. Morgan Chase & Co is provided with feedback from shareholders on a variety of topics, including the Firm's compensation programs and practices.
Competitive Benchmarking To make informed decisions on pay levels and pay practices, the Firm benchmarks itself against relevant market data.	Responsible use of equity The Firm manages its equity program responsibly, using less than 1% of weighted average diluted shares in 2021 for employee compensation.

(Pillar 3 Disclosures; Wates Principle V: Setting Remuneration, Policies)

Remuneration Governance

The UK RemCo, which is a committee of the Company's Board, reviews the remuneration policy applicable to the Company (the "Remuneration Policy") on an annual basis, and oversees its implementation. The UK RemCo last reviewed the Remuneration Policy in June 2021 and was satisfied with its implementation. That policy is subject to independent oversight and control by the Compensation and Management Development Committee ("CMDC"), a committee of the Board of J.P. Morgan Chase & Co., the Company's ultimate parent company. The UK RemCo held two meetings during 2021, plus its annual executive session.

The CMDC oversees the Firm's compensation programs on an ongoing basis throughout the year, which enables the programs to be proactive in addressing both current and emerging developments and challenges. (Wates Principle V: Policies, Delegating remuneration decisions, Subsidiary companies)

Relationships with stakeholders

The JPMC Board, as a group or as a subset of one or more directors, meets periodically throughout the year with the Firm's shareholders, employees and regulators, and with non-governmental organisations, and other persons interested in the Firm's strategy, business practices, governance, culture and performance.

JPMC shareholder engagement

The Firm engages with institutional and retail shareholders, fixed-income investors, proxy advisory firms, Environmental, Social & Governance firms and industry thought leaders. Engagement opportunities include the Annual Investor Day, quarterly earnings calls, investor conferences, the Annual Shareholder Meeting (along with the related Proxy Statement) and the twice-yearly Shareholder Outreach Program. In addition, JPMC communicates with shareholders through its Annual Report, Securities & Exchange Commission filings, press releases, the JPMC website and the Environmental Social and Governance Report ("ESG Report") (Wates Principle VI: External impacts, Stakeholders)

J.P. MORGAN SECURITIES PLC

Governance report

Relationships with stakeholders (continued)

Engagement with employees

The JPMorgan Chase Business Principles (the "JPMC Business Principles") set out the Firm's principles relating to A Great Team and Winning Culture.

The JPMC Board is committed to maintaining a strong corporate culture that instils and enhances a sense of personal accountability on the part of all of the Firm's employees. In addition to discussions at Board meetings with senior management about these efforts, JPMC directors participate in meetings with employees to emphasize this commitment. These meetings include employee town halls, lines of business and leadership team events, annual senior leaders' meetings and informal sessions with members of the JPMC Operating Committee and other senior leaders. During 2021, the Independent Non-Executive Directors of the Company also re-instated their informal employee engagement through joint breakfast sessions and individual meetings with employees from the Corporate and Investment Bank. In addition, the Firm conducts a periodic Employee Opinion Survey, the results of which are shared with the Company's Board for discussion and feedback is taken and actioned upon by management.

(Wates Principles II: Balance & Diversity, VI: Workforce)

Engagement with regulators

The Company's Board and senior leaders commit significant time to meeting with regulators from the UK and from other countries. Frequent interaction helps the Company learn first-hand from regulators about matters of importance to them and their expectations of the Firm. It also gives the Company's Board and management a forum for keeping our regulators well-informed about the Company's performance and business practices. *(Wates Principle VI: Stakeholders)*

Under the FCA Principles and the PRA Fundamental Rules, a firm must deal with its regulators in an open and cooperative way and must disclose to the FCA/PRA appropriately anything relating to the firm of which that regulator would reasonably expect notice. In adhering to this principle, the Company's directors and senior managers (under SMCR) regularly meet with the PRA and the FCA to discuss matters relating to the regulatory supervision of the Company. *(Wates Principle VI: Stakeholders)*

Relationships with Customers and Suppliers

The Company is committed to always deal fairly, ethically and in good faith with its customers, suppliers, competitors, business partners, regulators and employees. Discrimination, harassment or inappropriate or abusive conduct by or against its stakeholders is not tolerated. In addition to compliance with applicable laws and regulations, the Company expects all its employees to hold themselves to the highest standards of ethical conduct and has put in place comprehensive policies and procedures to monitor culture and conduct within the organisation. Trust is essential to the organisation's business success and particular focus has been put on being a reliable steward of customers and suppliers' information, whether that information relates to financial, personal or business matters.

The Company works to achieve a competitive advantage through superior products and services, never through unethical or illegal business practices. The organisation prohibits taking unfair advantage of any of its stakeholders through manipulation, concealment, abuse of privileged or confidential information, misrepresentation of material facts or any other unfair dealings or practices. In addition, the Company has fiduciary obligations to its clients to act in their best interest and avoids or otherwise addresses through controls, disclosures or other appropriate steps, any actual or potential conflicts of interest. Accountability, transparency and integrity are the cornerstones of doing good business, which includes simplifying disclosures, products and operations, and effectively managing environmental, social and governance matters. This preserves the organisation's reputation for integrity. In line with UK legal requirements, the Company discloses its payment practices information on a semi-annual basis. *(Wates Principle VI: Stakeholders)*

The JPMC Business Principles set out the Firm's Focus on the Customer:

- Exceed expectations by listening to customers and anticipating their needs, making it easy for them to do business with us
- Earn trust by always focusing on customers' best interests; high-quality customers will grow along with the Company
- Give customers a good, fair deal - offer high-quality, competitively priced products and services
- Consider the full range of products and services that will fit customer needs, cross selling when appropriate
- Never allow short-term profit considerations to get in the way of doing what's right for the customer
- Use our own products - when it comes to understanding the customer, nothing beats being a customer

(Wates Principle VI: Stakeholders)

J.P. MORGAN SECURITIES PLC

Governance report

Relationships with stakeholders (continued)

Engagement with ESG stakeholders

The Firm engages with numerous non-governmental organizations on a diverse range of issues that are important to communities and consumers about the Firm's business. For example, the Firm engages with organisations on environmental and social issues and provides philanthropic support to a broad range of non-profit organisations that work on issues that are important to the Firm. Management shares insights and feedback from these relationships and engagements with the JPMC Board, providing the Board with valuable insights to the issues that matter to the Firm's various stakeholders. This helps the Firm understand how the Firm's products and services can better serve its stakeholders and the communities in which it operates.

The Firm is committed to being transparent about how we do business and reporting on its efforts. One way the Firm does this is by publishing an annual ESG Report, which provides information on how the Firm is addressing ESG matters that it and its stakeholders view as among the most important to the Firm's business.

Engagement and transparency with the Firm's stakeholders help the Firm gain useful feedback and help us improve our governance processes. Information garnered from these meetings is shared regularly with the JPMC Board and senior management, including members of the Company's Board.

(Wates Principle VI: Stakeholders)

Engagement with the community

The Firm endeavours to promote inclusive economic growth and opportunity in communities where it operates. The Firm also works to advance environmental sustainability within its business activities and facilities. The Company's Board works to support the UK part of those endeavours. Highlights of recent progress include:

- The Firm has adopted a financing commitment that aligns with the Paris Agreement. In connection with this, the Firm has launched the Center for Carbon Transition ("CCT") to provide clients in the Corporate & Investment Bank and Commercial Banking lines of business with centralised access to sustainability-focused financing, research and advisory solutions. The CCT will also engage clients on their long-term business strategies and related carbon disclosures.
- In 2020, The Firm committed to become carbon neutral across its operations. The commitment includes scope 1 (direct) greenhouse gas ("GHG") emissions from building operations and company-owned aircraft and vehicles; scope 2 (indirect) GHG emissions from purchased electricity; and scope 3 (indirect) GHG emissions associated with business travel. The Firm first achieved this commitment in 2020 and will maintain carbon neutral operations each year going forward. In 2021, the Firm set new targets to drive progress on operational sustainability, including a goal to reduce our Scope 1 and Scope 2 (location-based) greenhouse gas emissions by 40% by 2030 over a 2017 baseline.
- Driving inclusive growth: as announced in early 2018, the Firm will invest \$1.75 billion by 2023 to drive inclusive growth in communities around the world. The firm's efforts focus on four pillars of opportunity: jobs and skills, small business expansion, neighbourhood revitalisation and financial health. In 2018, the Firm continued to open new pathways to opportunity and drive inclusive growth by leveraging the Firm's global presence, data, relationships and expertise.

In the UK we support:

- Demand-led training programs that help individuals, particularly those from disadvantaged backgrounds and low-income communities, to acquire the knowledge, skills and expertise necessary to obtain good-paying jobs, compete in the global economy and find new pathways to economic opportunity, for example through supporting Education Endowment Foundation ("EEF") to identify, evaluate and scale effective interventions that improve the attainment of Maths and English at GCSE for young people across the UK.
- Initiatives that promote the development and growth of micro- and small businesses to create local jobs, and increase economic opportunity and mobility, for example through supporting Hatch Enterprise and Enterprise Enfield to support women in London with the necessary tools and advice required to achieve business growth, sustainability and jobs creation in their local communities.
- Programs that help people acquire the necessary knowledge, skills and tools required to understand their finances, how to budget to increase their assets and to increase access to financial services and coaching, increasing their economic stability, for example through supporting Fair Money Advice to scale their debt advice service in London to enable people from low-income backgrounds to access a full package of support, including banking, finance and advice.

(Wates Principle VI: Stakeholders)

J.P. MORGAN SECURITIES PLC

Governance report

Further information

For further information on the corporate governance related disclosures made by the Company, please see

- JPMorgan Chase & Co. Business Principles: <https://www.jpmorganchase.com/about/our-business/business-principles>
- JPMorgan Chase & Co. Annual Meeting of Shareholders Proxy Statement: <https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/investor-relations/documents/proxy-statement2022.pdf>
- Capital Requirements Directive IV (2013/36/EU, "CRD IV") governance disclosures: https://www.jpmorgan.com/content/dam/jpm/global/disclosures/by-region/crd4_governance.pdf
- Pillar 3 disclosures under CRD IV and the Capital Requirements Regulation (EU 575/2013): <https://jpmorganchaseco.gcs-web.com/ir/sec-other-filings/basel-pillar-and-lcr-disclosures/pillar-uk>
- Gender Diversity on EMEA Boards Disclosures: <https://www.jpmorgan.com/disclosures/crd4>
- Environmental Social and Governance Report: <https://www.jpmorganchase.com/about/governance/esg> <https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/documents/jpmc-esg-report-2020.pdf> ⁽¹⁾
- Transparency Statement under s.54 of the Modern Slavery Act 2015: https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/documents/JPMC-Group-Statement-on-Modern-Slavery-FY2020_Final-w-signature.pdf ⁽²⁾



Sir Winfried Bischoff

Non-Executive Chairman

21 April 2022

⁽¹⁾ This links to the 2020 edition of the report. The 2021 report is expected to be published in May 2022.

⁽²⁾ This links to the Transparency Statement for 2020. The 2021 Transparency Statement is expected to be published in June 2022.

Independent auditors' report to the members of J.P. Morgan Securities plc

Report on the audit of the financial statements

Opinion

In our opinion, J.P. Morgan Securities plc's financial statements:

- give a true and fair view of the state of the company's affairs as at 31 December 2021 and of its profit and cash flows for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report, which comprise: the balance sheet as at 31 December 2021; the income statement, the statement of comprehensive income, the statement of cash flows, the statement of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the UK Audit and Compliance Committee.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided.

Other than those disclosed in note 12 to the financial statements, we have provided no non-audit services to the company or its controlled undertakings in the period under audit.

Our audit approach

Overview

Audit scope

- We tailored the scope of our audit to ensure that we performed sufficient work to be able to give an opinion on the financial statements as a whole. Our scoping considered all account balances and was performed to ensure that specific and appropriate audit procedures were performed over material balances.
- Due to some business process and internal controls being performed in other geographical locations, PwC network firms ("other auditors") were involved in the engagement.

Key audit matters

- Valuation of complex financial instruments held at fair value.

Materiality

- Overall materiality: US\$444,225,000 (2020: US\$451,800,000) based on 1% of Tier 1 regulatory capital resources as defined by the Prudential Regulation Authority.
- Performance materiality: US\$333,169,000 (2020: US\$338,800,000).

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

This is not a complete list of all risks identified by our audit.

COVID-19, which was a key audit matter last year, is no longer included because of the limited impact on the company's operations and the risk of material misstatement. Otherwise, the key audit matters below are consistent with last year.

Key audit matter	How our audit addressed the key audit matter
<p><i>Valuation of complex financial instruments held at fair value</i></p> <p>The fair value of certain financial instruments is determined using valuation methods that involve a varying degree of judgement. In exercising this judgement senior management determine the most appropriate assumptions and valuation methodologies.</p> <p>The valuation of complex and less liquid financial instruments can have greater estimation uncertainty due to the lack of observable market prices for these instruments.</p> <p>Within this population of financial instruments we observed the most significant estimations relate to the valuation of certain structured products (included in long-term debt, short term borrowings) and interest-rate and equity derivatives. These products can be bespoke and often require more judgemental valuation methodologies and market information that is not observable.</p> <p>Refer to Note 4 and Note 33 to the financial statements for further details of fair value measurement of financial instruments as a critical accounting estimate and judgement.</p>	<p>We tested the design and operating effectiveness of the key controls supporting the valuation of financial instruments:</p> <ul style="list-style-type: none">• Assessed the bank's standardised approach documents for independent valuation by comparing them to industry practice;• Assessed the design and tested the operating effectiveness of the independent price verification controls, and assessed the pricing sources used;• Engaged our valuation experts to assess model validation and approval controls; and• Evaluated and tested controls over data feeds and market information. <p>Our substantive procedures included the following:</p> <ul style="list-style-type: none">• Analysed the population of financial instruments to identify those that have a heightened risk of material misstatement;• Utilised our valuation experts to revalue a selection of instruments using our models and pricing information from independent sources where possible. Any differences were assessed to confirm that the valuation was within a tolerable threshold;• Recalculated and assessed the reasonableness of adjustments made to the standard model results; and• Examined collateral disputes, significant gains or losses on disposals and other events which could provide evidence about the appropriateness of the valuations. <p>The above procedures were completed without material exception.</p>

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the company, the accounting processes and controls, and the industry in which it operates.

The company is a corporate and investment banking subsidiary of JPMorgan Chase & Co that provides financial services to customers worldwide. We first established an end-to-end understanding of the principal processes that supported material balances, classes of transactions and disclosures within the company's financial statements. We subdivided the account balances into different business processes to ensure that the audit procedures performed were specific and appropriate to the nature of the balance and underlying business. We then determined the type of work that needed to be performed by us in the UK, or by other PwC network firms operating under our instruction. This reflects that certain operational processes which are critical to financial reporting are undertaken outside the UK. Where the work was performed by other PwC network firms, we determined the level of involvement we needed to have in their audit work to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the financial statements as a whole.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

<i>Overall company materiality</i>	US\$444,225,000 (2020: US\$451,800,000).
<i>How we determined it</i>	1% of Tier 1 regulatory capital resources as defined by the Prudential Regulation Authority.
<i>Rationale for benchmark applied</i>	The company is a regulated bank and wholly owned subsidiary of JPMorgan Chase & Co ("the Firm"). We considered the primary users of the financial statements to be the Firm, regulators and market counterparties, who are focussed on whether the company has sufficient capital resources to meet minimum regulatory requirements, fulfil its future market obligations and absorb any future losses should they arise.

We use performance materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality. Specifically, we use performance materiality in determining the scope of our audit and the nature and extent of our testing of account balances, classes of transactions and disclosures, for example in determining sample sizes. Our performance materiality was 75% (2020: 75%) of overall materiality, amounting to US\$333,169,000 (2020: US\$338,800,000) for the company financial statements.

In determining the performance materiality, we considered a number of factors - the history of misstatements, risk assessment and aggregation risk and the effectiveness of controls - and concluded that an amount at the upper end of our normal range was appropriate.

We agreed with the UK Audit and Compliance Committee that we would report to them misstatements identified during our audit above \$22 million (2020: \$22 million) as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

Conclusions relating to going concern

Our evaluation of the directors' assessment of the company's ability to continue to adopt the going concern basis of accounting included:

- Performing a risk assessment to identify factors that could impact the going concern basis of accounting, including the impact of COVID-19 on the operations and financial performance and position of the Company;
- Understanding and evaluating the Company's current financial position and financial forecasts;

- Understanding and reviewing the Company's current and forecast capital and liquidity position. This included examining the results of stress testing performed by management of both liquidity and regulatory capital, including considering the severity of the stress scenarios that were used and relevant sections of the report; and
- Reading and evaluating the adequacy of the disclosures made in the financial statements in relation to going concern.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

However, because not all future events or conditions can be predicted, this conclusion is not a guarantee as to the company's ability to continue as a going concern.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on our work undertaken in the course of the audit, the Companies Act 2006 requires us also to report certain opinions and matters as described below.

Strategic report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 December 2021 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic report and Directors' Report.

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Statement of directors' responsibilities in respect of the financial statements set out on page 54, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

Based on our understanding of the company and industry, we identified that the principal risks of non-compliance with laws and regulations related to Prudential Regulation Authority (PRA), Financial Conduct Authority (FCA) and United Kingdom Tax Legislation, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the financial statements such as the Company Act 2006. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting inappropriate journal entries, the existence of trades for which there has been no third party validation and management bias in accounting estimates, specifically the valuation of financial instruments held at fair value. The engagement team shared this risk assessment with the other auditors so that they could include appropriate audit procedures in response to such risks in their work. Audit procedures performed by the engagement team included:

- Discussions with senior management, the UK Audit and Compliance Committee, internal audit and internal legal advisors including consideration of known or suspected instances of non-compliance with laws and regulations and fraud;
- Evaluation of entity level controls put in place by management to prevent and detect irregularities, including additional inquiries and discussion relating to any whistleblowing incidents during 2021;
- Review of key correspondence with regulatory authorities (the PRA and the FCA) in relation to compliance and regulatory proceedings;
- Identification and testing of journal entries with specific risk characteristics, including those journal entries posted by senior management;
- Assessment of the design and operating effectiveness of controls over financial instrument confirmations and collateral, combined with substantive testing of specific populations of financial instruments that are unconfirmed as at year end;
- Assessment of the design and operating effectiveness of key controls over the valuation of financial instruments; and
- Challenge of assumptions and judgements made by senior management in their principal accounting estimates particularly in relation to fair value measurement of financial instruments.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

Our audit testing might include testing complete populations of certain transactions and balances, possibly using data auditing techniques. However, it typically involves selecting a limited number of items for testing, rather than testing complete populations. We will often seek to target particular items for testing based on their size or risk characteristics. In other cases, we will use audit sampling to enable us to draw a conclusion about the population from which the sample is selected.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not obtained all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the financial statements are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the UK Audit and Compliance Committee, we were appointed by the directors on 1 May 1992 to audit the financial statements for the year ended 31 December 1992 and subsequent financial periods. The period of total uninterrupted engagement is 30 years, covering the years ended 31 December 1992 to 31 December 2021. The company became a credit institution in 2011, and hence is considered to be a UK public-interest entity from 2011 onwards.

Duncan McNab (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
21 April 2022

J.P. MORGAN SECURITIES PLC

Income Statement

Year ended 31 December		2021			2020		
		Continuing Operations	Discontinued Operations	Total	Continuing Operations	Discontinued Operations	Total
	Notes	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Interest and similar income	7	4,027,854	(71)	4,027,783	4,117,964	(69,755)	4,048,209
Financial instruments at amortised cost and FVOCI		538,664	(71)	538,593	686,869	(69,755)	617,114
Other similar income		3,489,190	—	3,489,190	3,431,095	—	3,431,095
Interest expense and similar charges	7	(3,047,480)	(395)	(3,047,875)	(3,763,017)	(270)	(3,763,287)
Financial instruments at amortised cost		(1,161,581)	(395)	(1,161,976)	(1,735,597)	(270)	(1,735,867)
Other similar charges		(1,885,899)	—	(1,885,899)	(2,027,420)	—	(2,027,420)
Net interest income		980,374	(466)	979,908	354,947	(70,025)	284,922
Fee and commission income	8	3,894,990	34,617	3,929,607	3,487,083	120,604	3,607,687
Fee and commission expense		(2,160,636)	(25,197)	(2,185,833)	(1,511,059)	(14,057)	(1,525,116)
Net fee and commission income		1,734,354	9,420	1,743,774	1,976,024	106,547	2,082,571
Trading profit		4,549,398	(7)	4,549,391	5,612,752	71	5,612,823
Dividend income		37,511	—	37,511	—	—	—
Other income	9	38,645	—	38,645	92,491	—	92,491
Recovery/(charge-offs) on loans and commitments		7,759	—	7,759	(15,043)	—	(15,043)
Expected credit loss release/(provision)	10	81,710	—	81,710	(110,940)	—	(110,940)
Net operating income		7,429,751	8,947	7,438,698	7,910,231	36,593	7,946,824
Administrative expenses		(5,045,822)	8,035	(5,037,787)	(4,723,792)	(132,204)	(4,855,996)
Other impairment	23	(25,888)	—	(25,888)	(6,565)	—	(6,565)
Depreciation		(478)	—	(478)	(146)	(398)	(544)
Profit before taxation	13	2,357,563	16,982	2,374,545	3,179,728	(96,009)	3,083,719
Tax on profit	14	(649,562)	(3,175)	(652,737)	(1,126,476)	21,488	(1,104,988)
Profit for the financial year		1,708,001	13,807	1,721,808	2,053,252	(74,521)	1,978,731

The notes on pages 78 - 132 form an integral part of these financial statements.

J.P. MORGAN SECURITIES PLC
Income Statement
Statement of comprehensive income

Year ended 31 December		2021	2020
	Notes	\$'000	\$'000
Profit for the financial year		1,721,808	1,978,731
Other comprehensive income/(expense)/: items that will not be reclassified to profit or loss			
Actuarial gain/(loss) on pension schemes	35	57,035	(11,183)
Tax effect of movement in pension reserve	15	(13,607)	5,286
Movement attributed to own credit risk on financial liabilities designated at FVTPL		(41,016)	22,186
Other comprehensive (expense)/income: items that will be reclassified to profit or loss			
Fair value movement on loans		(13,845)	17,956
Movement in ECL on loans at FVOCI		16,624	—
Tax effect of movement in fair value loans		3,496	(4,848)
Total other comprehensive (expense)		8,687	29,397
Total comprehensive income for the year		1,730,495	2,008,128

J.P. MORGAN SECURITIES PLC

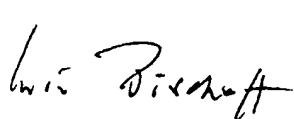
Balance sheet

As at 31 December		2021	2020
	Notes	\$'000	\$'000
Assets			
Cash and balances at central banks		13,558,101	13,595,722
Loans and advances to banks	17	7,853,765	8,152,288
Loans and advances to customers	18	799,513	990,166
Securities purchased under agreements to resell	19	185,015,310	224,036,595
Securities borrowed	19	53,966,173	40,814,802
Financial assets at fair value through profit or loss ^(a)	20	339,768,021	431,967,578
Debtors	21	113,146,384	115,763,212
Other assets	22	1,681,830	932,126
Investments in JPMorgan Chase undertakings	23	1,049	26,937
Tangible assets		3,300	3,569
Total assets		715,793,446	836,282,995
Liabilities			
Securities sold under agreements to repurchase	19	104,659,364	142,452,605
Securities loaned	19	9,162,653	11,851,953
Financial liabilities at fair value through profit or loss	25	258,590,580	344,663,186
Financial liabilities designated at fair value through profit or loss	26	31,898,690	28,611,965
Trade creditors	27	53,158,517	46,712,298
Amounts owed to JPMorgan Chase undertakings		169,155,889	157,916,408
Other liabilities	27	30,691,965	45,425,598
Subordinated liabilities with JPMorgan Chase undertakings	28	12,000,000	12,000,000
Total liabilities		669,317,658	789,634,013
Equity			
Called-up share capital	29	12,443,530	12,443,530
Share premium account	29	9,950,724	9,950,724
Capital redemption reserve		4,996,040	4,996,040
Other reserves		1,622,937	1,767,939
Retained earnings		17,462,557	17,490,749
Total equity		46,475,788	46,648,982
Total liabilities and equity funds		715,793,446	836,282,995

(a) Financial assets at fair value consists of trading assets pledged of \$35.1 billion (2020: \$36.5 billion). Please see Note 38 for further details.

The notes on pages 78 - 132 form an integral part of these financial statements.

The financial statements on pages 73 - 132 were approved by the Board of Directors on 21 April 2022 and signed on its behalf by:



Sir Winfried Bischoff
Chairman & Non-Executive Director



Anna Dunn
Director & Chief Financial Officer

J.P. MORGAN SECURITIES PLC

Statement of changes in equity

	Notes	Called-up share capital	Share premium account	Capital contribution reserve	Capital redemption reserve	Pension reserve	Other reserves	Retained earnings	Total equity
		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Balance as at 1 January 2020		12,443,530	9,950,724	1,588,615	4,996,040	(30,657)	198,203	15,762,018	44,908,473
Profit for the financial year		—	—	—	—	—	—	1,978,731	1,978,731
Other comprehensive (expense)/income for the year:									
Dividends paid		—	—	—	—	—	—	(250,000)	(250,000)
Loss related to own credit risk on financial liabilities designated at FVTPL		—	—	—	—	—	22,186	—	22,186
Movement in fair value of loans at FVOCI		—	—	—	—	—	17,956	—	17,956
Distribution of shares for no consideration	23	—	—	—	—	—	15,616	—	15,616
Actuarial loss on pension schemes	35	—	—	—	—	(11,183)	—	—	(11,183)
Tax effect on loans at FVOCI		—	—	—	—	—	(4,848)	—	(4,848)
Tax effect on movement in pension reserve		—	—	—	—	5,286	—	—	5,286
Total comprehensive (expense)/income for the year		—	—	—	—	(5,897)	50,910	1,728,731	1,773,744
Movement in other reserves		—	—	—	—	—	(33,235)	—	(33,235)
Balance as at 31 December 2020		12,443,530	9,950,724	1,588,615	4,996,040	(36,554)	215,878	17,490,749	46,648,982
Profit for the financial year		—	—	—	—	—	—	1,721,808	1,721,808
Other comprehensive (expense)/income for the year:									
Loss related to own credit risk on financial liabilities designated at FVTPL		—	—	—	—	—	(41,016)	—	(41,016)
Movement in fair value of loans at FVOCI		—	—	—	—	—	(13,845)	—	(13,845)
Movement in ECL on loans at FVOCI		—	—	—	—	—	16,624	—	16,624
Actuarial gain on pension schemes	35	—	—	—	—	57,035	—	—	57,035
Tax effect on loans at FVOCI		—	—	—	—	—	3,496	—	3,496
Tax effect on movement in pension reserve		—	—	—	—	(13,607)	—	—	(13,607)
Total comprehensive expense for the year		—	—	—	—	43,428	(34,741)	1,721,808	1,730,495
Group share based payment costs	36	—	—	—	—	—	355,265	—	355,265
Group share based payment costs recharged	36	—	—	—	—	—	(355,265)	—	(355,265)
Dividends paid		—	—	—	—	—	—	(1,750,000)	(1,750,000)
Movement in other reserves		—	—	—	—	—	(153,689)	—	(153,689)
Balance as at 31 December 2021		12,443,530	9,950,724	1,588,615	4,996,040	6,874	27,448	17,462,557	46,475,788

The notes on pages 78 - 132 form an integral part of these financial statements.

J.P. MORGAN SECURITIES PLC

Statement of cash flows

Year ended 31 December		2021	2020
	Notes	\$'000	\$'000
Cash flows from operating activities			
Cash used in operations	31	(9,395,099)	(28,883,518)
Income taxes paid		(311,696)	(671,719)
Net cash used in operating activities		(9,706,795)	(29,555,237)
Cash flow from investing activities			
Purchases of tangible fixed assets		269	(2,979)
Net cash used in from investing activities		269	(2,979)
Cash flow from financing activities			
Change in amounts owed to JPMorgan Chase undertakings		11,239,481	43,094,418
Dividend Paid		(1,750,000)	(250,000)
Net cash generated from financing activities		9,489,481	42,844,418
Net (decrease)/increase in cash and cash equivalents		(217,045)	13,286,202
Cash and cash equivalents at the beginning of the year		21,748,010	6,900,609
Exchange (losses)/gains on cash and cash equivalents		(119,099)	1,561,199
Cash and cash equivalents at the end of the year		21,411,866	21,748,010
Cash and cash equivalents consist of:			
Cash and balances at central banks		13,558,101	13,595,722
Loans and advances to banks, with maturities of three months or less		7,853,765	8,152,288
Cash and cash equivalents		21,411,866	21,748,010

In the table above, cash generated from operations included interest paid of \$(2.8) billion (2020: \$(4.1) billion) and interest received of \$3.8 billion (2020: \$4.4 billion).

The notes on pages 78 - 132 form an integral part of these financial statements.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements

1. General information

The Company is a public company limited by shares and is incorporated and domiciled in England and Wales. The Company's immediate parent undertaking is J.P. Morgan Capital Holdings Limited, which is also the parent undertaking of the smallest group in which the Company's results are consolidated. The Company's ultimate parent undertaking and controlling party is JPMorgan Chase & Co. ("the Firm") which is incorporated in the state of Delaware in the United States of America. JPMorgan Chase & Co. is also the parent undertaking of the largest group in which the results of the Company are consolidated. The largest and smallest parent groups' consolidated financial statements can be obtained from the Company's registered office at 25 Bank Street, Canary Wharf, London, E14 5JP.

Principal activities

The Company is a principal subsidiary of the Firm in the United Kingdom ("UK"). The Company engages in international investment banking activity, including activity across Markets and Banking lines of business. Within these lines of business, its activities include underwriting government and corporate bonds, equities and other securities; arranging private placements of debt and convertible securities; trading in debt securities, equity securities, commodities, swaps and other derivatives; providing brokerage and clearing services for exchange traded future and options contracts; lending related activities and providing investment banking advisory services. The Company is a member of multiple exchanges and clearing houses, including, among others, LME Clear Limited and ICE Clear Europe.

The Company is a UK bank and a EEA Capital Requirements Directive IV ("CRD IV") credit institution, legally defined as an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account.

The Company is authorised by the Prudential Regulation Authority ("PRA") and regulated by the PRA and Financial Conduct Authority ("FCA") in the UK. It has branches in Frankfurt, Paris and Zurich. The elimination of the Frankfurt and Paris branches of J.P. Morgan Securities plc is planning to be delivered in 2022.

As of the Brexit effective date, the Company lost its EU passporting rights and is no longer able to conduct regulated activities in the EEA, with certain exceptions discussed in page 6 of this report.

2. Basis of preparation

These financial statements have been prepared in accordance with Financial Reporting Standard 101, 'Reduced Disclosure Framework' ("FRS 101"). FRS 101 applies the recognition and measurement requirements of International Financial Reporting Standards ("IFRS"), as adopted by the U.K, in conformity with the requirements of the Companies Act 2006.

The financial statements have been prepared on a going concern basis under the historical cost convention as modified by the revaluation of certain financial assets and financial liabilities measured at fair value through profit or loss or measured at fair value through OCI, and in accordance with the Companies Act 2006 as applicable to companies using FRS 101.

The following exemptions from the requirements of IFRS as adopted by the UK have been applied in the preparation of these financial statements, in accordance with FRS 101:

- Certain share based payment disclosures in respect of Firm equity instruments (IFRS 2 'Share-based payment' paragraphs 45(b) and 46 to 52);
- Comparative information disclosures for the following (paragraph 38 of IAS 1 'Presentation of financial statements' ("IAS 1")):
 - reconciliation of share capital (paragraph 79(a)(iv) of IAS 1);
 - reconciliation of property, plant and equipment (paragraph 73(e) of IAS 16 'Property, plant and equipment');
 - reconciliation of intangible assets (paragraph 118(e) of IAS 38 'Intangible assets');
- Statement of compliance to IFRSs - Paragraph 16, IAS 1;
- Third balance sheet on retrospective accounting policy changes, restatements, or reclassifications (paragraph 40A-D, IAS 1);
- Disclosures in relation to new or revised standards issued but not yet effective (paragraph 30 and 31, IAS 8, 'Accounting policies, changes in accounting estimates and errors');
- Key management compensation disclosures (paragraph 17, IAS 24 'Related Party Disclosures' ("IAS 24")); and
- Related party transactions with wholly owned Firm undertakings (IAS 24).

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

3. Accounting and reporting developments

Standards adopted during the year ended 31 December 2021

On January 1, 2021, the Company adopted amendments to IFRS 9, "Financial instruments", IAS 39, "Financial Instruments: Recognition and Measurement", IFRS 7, "Financial Instruments: Disclosures", as Phase 2 of the IASB's project addressing the potential effects from the reform of the Interbank Offered Rate ("IBOR") on financial reporting.

The amendments require that, for financial instruments classified as amortised cost and debt financial assets classified as FVOCI, changes to the basis for determining the contractual cash flows required by interest rate benchmark reform are reflected by adjusting their effective interest rate. No immediate gain or loss is recognised. This practical expedient is only applicable to changes that are required by interest rate benchmark reform, which is the case if, and only if, the change is necessary as a direct consequence of interest rate benchmark reform and the new basis for determining the contractual cash flows is economically equivalent to the previous basis.

For the year ended 31 December 2021, the Group has applied the practical expedients offered under the amendments.

The Company does not apply hedge accounting, hence, the amendments related to hedge accounting requirements are not applicable to the Company. The Company does not have material leases, and as such the amendments related to leases do not have a material impact. Additionally the Company is required to disclose additional information about its exposure to risks arising from interest rate benchmark reform and related risk management activity. See Page 39.

4. Critical accounting estimates and judgements

In the process of applying the Company's accounting policies, management makes judgements, estimates and assumptions for certain categories of assets and liabilities. These judgements, estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the balance sheet date, and the reported amounts of revenue and expenses during the reporting period. Making judgements, estimates and assumptions can involve levels of uncertainty and subjectivity and therefore actual results could differ from the reported amounts. The Company's significant accounting policies are described in Note 5.

Some of the judgements, estimates and assumptions management makes when preparing the Company's financial statements involve high levels of subjectivity and assessments about the future and other sources of uncertainty. Those that may have a material impact on the Company's financial condition, changes in financial condition or results of operations are described below.

Fair value measurement

The Company carries a significant portion of its assets and liabilities at fair value on a recurring basis. Certain financial instruments are classified on the basis of valuation techniques that feature one or more significant market inputs that are unobservable, and for them, the measurement of fair value is more judgemental:

- Judgements:
 - In classifying a financial instrument in the valuation hierarchy judgement is applied in determining whether one or more inputs are observable and significant to the fair value measurement. A financial instrument's categorization within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement. Refer to Note 33.
- Estimates:
 - For instruments classified in level 3, management judgement must be applied to assess the appropriate models and level of valuation adjustments. Details on the Company's level 3 financial instruments and the sensitivity of their valuation to the effect of applying reasonable possible alternative assumptions in determining their fair value are set out in Note 33.

5. Significant accounting policies

The following are the significant accounting policies applied in the preparation of these financial statements. These policies have been applied consistently in each of the years presented, unless otherwise stated.

5.1 Consolidation

The Company is a subsidiary undertaking of J.P. Morgan Capital Holdings Limited, a company incorporated in England and Wales and of its ultimate parent JP Morgan Chase & Co. a company incorporated in the United States of America. It is included in the consolidated financial statements of J.P. Morgan Capital Holdings Limited which are publicly available. Therefore, the Company has elected not to prepare group financial statements in accordance with the dispensation set out in Section 400 of the Companies Act 2006.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

5. Significant accounting policies (continued)

5.2 Functional and presentation currency

Items included in the financial statements of the Company are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). Taking into account the cash flows, the financing structure, including United States ("U.S.") dollar equity and inter-entity financing arrangements with JPMorgan Chase Bank N.A., U.S. dollars is considered as the functional and presentation currency of the Company.

5.3 Foreign currency translation

Monetary assets and monetary liabilities in foreign currencies are translated into U.S. dollars at rates of exchange ruling on the balance sheet date. Income and expense items denominated in foreign currencies are translated into U.S. dollars at exchange rates prevailing at the date of the transactions. Any gains or losses arising on translation are taken directly to the income statement.

Non-monetary items denominated in foreign currencies that are stated at historical cost are translated into U.S. dollars at the exchange rate ruling at the date when the transaction was initially recognised.

5.4 Financial assets and financial liabilities

i. Recognition of financial assets and financial liabilities

The Company recognises financial assets and financial liabilities when it becomes a party to the contractual provisions of the instrument. Regular way purchases and sales of securities are recognised on the trade-date, which is the date on which the Company commits to purchase or sell an asset.

ii. Classification and measurement of financial assets and financial liabilities

On initial recognition, financial assets are classified and measured at amortised cost, fair value through other comprehensive income ("FVOCI") or fair value through profit or loss ("FVTPL"). The classification is based on both the business model for managing the financial assets and their contractual cash flow characteristics. Factors considered by the Company in determining the business model for a group of assets include past experience on how the cash flows for these assets were collected, how the assets' performance is evaluated and reported to key management personnel, how risks are assessed and managed, and how managers are compensated.

On initial recognition, financial liabilities are classified as measured at either amortised cost or FVTPL.

iii. Financial assets and financial liabilities measured at amortised cost

Financial assets are measured at amortised cost if they are held under a business model with the objective to collect contractual cash flows ("Hold to Collect") and they have contractual terms under which cash flows are solely payments of principal and interest ("SPPI"). In making the SPPI assessment, the Company considers whether the contractual cash flows are consistent with a basic lending arrangement (i.e. interest includes only consideration for the time value of money, credit risk, other basic lending risks and a profit margin that is consistent with a basic lending arrangement). Where the contractual terms introduce exposure to risk or volatility that are inconsistent with a basic lending arrangement, the related financial asset is classified and measured at FVTPL. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are SPPI. As a result of the application of these criteria, only debt financial assets are eligible to be measured at amortised cost.

Financial assets measured at amortised cost include cash and balances at central banks, loans and advances to banks, certain loans and advances to customers, certain securities under agreements to resell, debtors and accrued income that are in the Hold to Collect business model.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

5. Significant accounting policies (continued)

5.4 Financial assets and financial liabilities (continued)

iii. Financial assets and financial liabilities measured at amortised cost (continued)

Financial liabilities are measured at amortised cost unless they are held for trading or a designated as measured at FVTPL. Most of the Company's financial liabilities are measured at amortised cost. Financial liabilities measured at amortised cost include certain securities sold under agreements to repurchase, trade creditors, amounts owed to JPMorgan Chase undertakings and certain other liabilities.

Financial assets and financial liabilities measured at amortised cost are initially recognised at fair value including transaction costs (which are explained below). The initial amount recognised is subsequently reduced for principal repayments and adjusted for accrued interest using the effective interest method (see below). In addition, the carrying amount of financial assets is adjusted by recognising an expected credit loss allowance through the profit or loss.

The effective interest method is used to allocate interest income or interest expense over the relevant period. The effective interest rate is the rate that discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability or a shorter period when appropriate, to the net carrying amount of the financial asset or financial liability. The effective interest rate is established on initial recognition of the financial asset or financial liability. The calculation of the effective interest rate includes all fees and commissions paid or received, transaction costs, and discounts or premiums that are an integral part of the effective interest rate. Transaction costs are incremental costs that are directly attributable to the acquisition, issuance or disposal of a financial asset or financial liability.

Gains and losses arising on the disposal of financial assets measured at amortised cost are recognised in 'trading profit' or other non-interest revenue as relevant.

iv. Financial assets measured at fair value through other comprehensive income ("FVOCI")

Financial assets are measured at FVOCI if they are held under a business model with the objective of both collecting contractual cash flows and selling the financial assets ("Hold to Collect and Sell"), and they have contractual terms under which cash flows are SPPI.

Financial assets measured at FVOCI include loans and advances to customers that are held within the Company's Trade Finance and Credit Portfolio Group which are managed with the objective of both collecting contractual cash flows and realising cash flows from sales and have contractual terms that meet the SPPI criteria.

Financial assets measured at FVOCI are initially recognised at fair value, which includes direct transaction costs. The financial assets are subsequently remeasured at fair value with any changes presented in other comprehensive income ("OCI") except for changes attributable to impairment, interest income and foreign currency exchange gains and losses. Impairment losses and interest income are measured and presented in profit or loss on the same basis as financial assets measured at amortised cost (see above).

On disposal of financial assets measured at FVOCI, the cumulative gains or losses in OCI are reclassified from equity, and recognised in current period Other Income.

v. Financial assets and financial liabilities measured at fair value through profit or loss

Financial assets and financial liabilities are measured at FVTPL if they are held for trading. Under IFRS 9, a financial asset or a financial liability is defined as "held for trading" if it is acquired or incurred principally for the purpose of selling or repurchasing it in the near term, or forms part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking or it is a derivative. However, such financial instruments are used by the Company predominantly in connection with its client-driven market-making and/or for hedging certain assets, liabilities, positions, cash flows or anticipated transactions (i.e. risk management activities).

Financial assets and financial liabilities held for trading comprise both debt and equity securities, loans and derivatives, certain securities purchased under agreements to resell and securities borrowed and the related unrealised gains and losses.

In addition, certain financial assets that are not held for trading are measured at FVTPL if they do not meet the criteria to be measured at amortised cost or FVOCI. For example, if the financial assets are managed on a fair value basis, have contractual cash flows that are not SPPI or are equity securities. The Company has determined that securities purchased under agreements to resell and securities borrowed within the Corporate and Investment Banking portfolios are managed on a fair value basis, and they are therefore ineligible to be measured at amortised cost or FVOCI under IFRS 9. These financial instruments are classified as FVTPL. The Company did not elect to measure any equity instruments at FVOCI.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

5. Significant accounting policies (continued)

5.4 Financial assets and financial liabilities (continued)

v. Financial assets and financial liabilities measured at fair value through profit or loss (continued)

Financial instruments measured at FVTPL are initially recognised at fair value in the balance sheet. Transaction costs and any subsequent fair value gains or losses are recognised in profit or loss as they arise.

The Company manages cash instruments, in the form of debt and equity securities, and derivatives on a unified basis, including hedging relationships between cash securities and derivatives. Accordingly, the Firm reports the gains and losses on the cash instruments and the gains and losses on the derivatives on a net basis in trading profits.

vi. Financial assets and financial liabilities designated at fair value through profit or loss

Subject to certain criteria, the Company can designate financial assets and financial liabilities to be measured at FVTPL. Designation is only possible when the financial instrument is initially recognised and cannot subsequently be reclassified. Financial assets can be designated as measured at FVTPL only if such designation eliminates or significantly reduces a measurement or recognition inconsistency. Financial liabilities can be designated as measured at FVTPL only if such designation (a) eliminates or significantly reduces a measurement or recognition inconsistency; or (b) applies to a group of financial assets, financial liabilities or both that the Company manages and evaluates on a fair value basis; or (c) relates to an instrument that contains an embedded derivative unless the embedded derivative does not significantly modify the cash flows required by the contract or when a similar hybrid instrument is considered that separation of the embedded derivative is prohibited.

Financial assets and financial liabilities that the Company designates as measured at FVTPL are recognised at fair value at initial recognition, with transaction costs being recognised in profit or loss and subsequently measured at fair value. Gains and losses on financial assets and financial liabilities designated at FVTPL are recognised in profit or loss as they arise.

Changes in the fair value of financial assets designated as measured at FVTPL are recognised immediately in trading profit or loss (see 'Trading profit' section 5.6 below).

Changes in the fair value of liabilities designated as measured at FVTPL are recognised in profit or loss except for gains/losses attributable to changes in the Company's own credit risk. These gains/losses are recognised in OCI unless doing so results in an accounting mismatch with directly offsetting financial assets measured at fair value through profit or loss.

The Company has designated securities sold under agreements to repurchase and securities loaned within the Company's Corporate and Investment Banking portfolios to be measured at FVTPL. These financial instruments are managed together with securities purchased under agreements to resell and securities borrowed, respectively, and the Company elected to designate them as measured at FVTPL to eliminate or significantly reduce measurement inconsistencies (i.e. an accounting mismatch) that would have otherwise been created.

Additionally, the Company has designated certain liabilities with JPM Chase undertakings and third parties, to be measured at fair value through profit and loss, if they contain one or more embedded derivatives that would otherwise require bifurcation.

5.5 Interest income and expense

Unless a financial asset is credit-impaired, interest income is recognised by applying the effective interest method to the carrying amount of a financial asset before adjusting for any allowance for expected credit losses. If a financial asset is credit-impaired, interest income is recognised by applying the effective interest rate to the carrying amount of the financial asset including any allowance for expected credit losses.

Interest expense on financial liabilities is recognised by applying the effective interest method to the amortised cost of financial liabilities.

Interest income and expense on financial assets and financial liabilities, excluding those classified at FVTPL, are presented in interest income from financial assets measured at amortised cost and FVOCI and interest expense from financial liabilities measured at amortised cost respectively.

Interest generated as a result of 'negative' interest rates is recognised gross, as interest income or interest expense.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

5. Significant accounting policies (continued)

5.6 Trading profit

Profits and losses resulting from the purchase and sale of securities and the revaluation of financial instruments are recognised in trading profit on a trade-date basis, including related transaction costs.

5.7 Impairment of financial assets and lending-related commitments

Instruments in scope of Traditional Credit Products ("TCP") include loans, lending-related commitments, and other lending products stemming from extensions of credit to borrowers (including intercompany and affiliated entities). The Company establishes an ECL for these instruments to ensure they are reflected in the financial statements at the Company's best estimate of the net amount expected to be collected. The ECL is determined on in-scope financial instruments measured at amortised cost or FVOCI. ECL are measured collectively via a portfolio-based (modelled) approach for Stage 1 and 2 assets but are generally measured individually for Stage 3 assets. ECL are forecasted over the 12-month term (Stage 1) or expected life (Stage 2 or 3) of in-scope financial instruments, where the forecast horizon includes the reasonable and supportable ("R&S") forecast period, the reversion period and the residual period and considers the time value of money. In determining the ECL measurement and staging for a financial instrument, the Company applies the definition of default consistent with the Basel definition of default to maintain uniformity of the definition across the Firm. These topics are discussed in more detail in the sections below.

Determining the appropriateness of the allowance is complex and requires judgement by management about the effect of circumstances that are inherently uncertain. Further, estimating the allowance involves consideration of a range of possible outcomes, which management evaluates to determine its best estimate. Subsequent evaluations of the TCP portfolio, in light of the circumstances then prevailing, may result in significant changes in the ECL in future periods.

The Company must consider the appropriateness of decisions and judgements regarding methodology and inputs utilised in developing estimates of ECL each reporting period and document them appropriately.

Credit risk pages (15 - 23) provides more detail for how the expected credit loss allowance is measured.

5.8 Charge-offs

Wholesale loans recognised as loans and advances to customers on the balance sheet are charged off when it is highly certain that a loss has been realised. The determination of whether to recognise a charge-off includes many factors, including the prioritisation of the Company's claim in bankruptcy, expectations of the workout/restructuring of the loan and valuation of the borrower's equity or the loan collateral.

All other financial assets are written off when there is no reasonable expectation of recovery and the amount of loss can be reasonably estimated or when the asset is past due for a specified period.

5.9 Modification of loans

The Company may modify terms with borrowers that are not experiencing financial difficulty. In these instances, the Company will make a determination of whether the modification results in a new financial asset. If the modification is substantive, the existing loan is derecognised and a new financial asset is recognised. If the modification does not result in a new financial asset, any modification gain or loss is immediately recognised in profit and loss. Modification gain or loss is determined by recalculating the gross carrying amount of the loan by discounting the new contractual cash flows using the original effective interest rate.

The Company seeks to modify certain loans in conjunction with its loss-mitigation activities. A modification may result in the Company granting one or more concessions to a borrower who is experiencing financial difficulty in order to minimise the Company's economic loss, avoid foreclosure or repossession of the collateral, and to ultimately maximise cash flows received by the Company from the borrower.

Concessions granted vary by borrower, and may include interest rate reductions, term extensions, payment deferrals, principal forgiveness, or the acceptance of equity or other assets in lieu of cash. Such loan modifications are included in Stage 3, and the loans are considered to be credit-impaired until they mature, are repaid, or are otherwise liquidated, regardless of whether the borrowers perform under the modified terms. ECL is generally measured individually for Stage 3 assets.

For modification of loans that are classified as amortised cost and FVOCI, the Company applied the practical expedient from 1 January 2021, and reflect the changes to the basis for determining the contractual cash flows required by interest rate benchmark reform by adjusting their effective interest rate. No immediate gain or loss is recognised. Refer to Note 3.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

5. Significant accounting policies (continued)

5.10 Fee and commission income and expense

The Company earns revenue from providing investment banking, lending and deposit-related services, brokerage services and other commissions.

Investment banking fees

Investment banking revenue includes debt and equity underwriting and advisory fees.

Underwriting fees are recognised as revenue typically upon execution of the client's transaction. Debt underwriting fees also include credit arrangement and syndication fees which are recorded as revenue after satisfying certain retention, timing and yield criteria. Advisory fees are recognised as revenue typically upon execution of the client's transaction.

Lending and deposit related fees

Lending-related fees include fees earned from loan commitments, standby letters of credit, financial guarantees, and other loan-servicing activities. Deposit related fees include fees earned in lieu of compensating balances, and fees earned from performing cash management activities and other deposit account services. Lending and deposit-related fees in this revenue category are recognised over the period in which the related service is provided.

Commissions and other fees

The Company acts as a broker, facilitating its clients' purchase and sale of securities and other financial instruments. It collects and recognises brokerage commissions as revenue upon occurrence of the client transaction. The Company reports certain costs paid to third-party clearing houses and exchanges net against commission revenue.

Fee and commissions obtained through Firm attribution agreements are recognised when the underlying contract becomes legally binding or at the agreed due date if later.

5.11 Dividend recognition

Dividend income is recognised when the right to receive payment is established. Dividends in the form of non-cash assets are recognised at their fair values by the transferee and derecognised at their book value by the transferor. Where the asset received is an investment in the share capital of an entity, the fair value is determined by the market value of the underlying net assets and businesses of the investee (refer to Note 5.20).

Dividend distributions are recognised in the period in which they are declared and approved.

5.12 Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Fair values are determined by reference to observable market prices where available and reliable. Fair values of financial assets and financial liabilities are based on quoted market prices or dealer price quotations for financial instruments traded in active markets. Where market prices are unavailable, fair value is based on valuation models that consider relevant transaction characteristics (such as maturity) and used as inputs observable or unobservable market parameters, including but not limited to yield curves, interest rates, volatilities, equity or debt prices, foreign exchange rates and credit curves. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value. The Company manages certain portfolios of financial instruments on the basis of net open risk exposure and has elected to estimate the fair value, of such portfolios on the basis of a transfer of the entire net open risk position in an orderly transaction.

For financial assets and liabilities held at fair value, most market parameters in the valuation model are either directly observable or are implied from instrument prices. When input values do not directly correspond to the most actively traded market parameters the model may perform numerical procedures in the pricing such as interpolation.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

5. Significant accounting policies (continued)

5.12 Fair value (continued)

The Company classifies its assets and liabilities according to a hierarchy that has been established under IFRS for disclosure of fair value measurements. The fair value hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3 inputs).

A financial instrument's categorisation within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement.

Further details on fair value measurements are provided in Note 33 to the financial statements.

5.13 Recognition of day one profit and loss

The Company enters into transactions where fair value is determined using valuation models that use significant unobservable inputs. Such a financial instrument is initially recognised at the transaction price, although the value obtained from the relevant valuation model may differ. The difference between the transaction price and the model value, commonly referred to as 'day one profit and loss', is not recognised immediately in the income statement.

The timing of recognition of deferred day one profit and loss is determined for each class of financial asset and liability. It is either amortised over the life of the transaction, deferred until the instrument's fair value can be determined using market observable inputs, or realised through settlement. The financial instrument is subsequently measured at fair value, adjusted for the deferred day one profit and loss.

5.14 Derecognition of financial assets and financial liabilities

Financial assets are derecognised when the contractual right to receive cash flows from the asset has expired, or has been transferred with either of the following conditions met:

- i) the Company has transferred substantially all the risks and rewards of ownership of the asset; or
- ii) the Company has neither retained nor transferred substantially all of the risks and rewards; but has relinquished control of the asset.

Financial liabilities are derecognised when they are extinguished, that is when the obligation is discharged, cancelled or expires.

The Company also from time to time enters into certain 'pass-through' arrangements whereby contractual cash flows on a financial asset are passed to a third party. Such financial assets are derecognised from the balance sheet if the terms of the arrangement oblige the Company to only pass on contractual cash flows to the third party that are actually received without material delay, and where the terms of the arrangement also prohibit the Company from selling or pledging the underlying financial asset.

5.15 Impairment of non-financial assets

Non-financial assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are largely independent cash inflows (cash-generating units). Prior impairments of non-financial assets (other than goodwill) are reviewed for possible reversal at each reporting date.

5.16 Securities purchased under agreement to resell and securities sold under agreement to repurchase

Securities purchased under agreements to resell, and securities sold under agreements to repurchase, are treated as collateralised lending and borrowing transactions respectively. The consideration for the transaction can be in the form of cash or securities. If the consideration for the purchase or sale of securities is given in cash the transaction is recorded on the balance sheet within securities purchased/sold under agreement to resell/repurchase. If the consideration is received or given in the form of securities the transaction is recorded off balance sheet. The difference between the sales and repurchase price is treated as interest and accrued over the life of the agreements using the effective interest method.

5.17 Securities borrowed and securities loaned transactions

Securities borrowed and securities loaned are recorded at the amount of cash collateral advanced or received. Securities borrowed and securities loaned transactions require the borrower to deposit cash, letters of credit or other collateral with the lender. If the consideration is received or given in the form of securities the transaction is recorded off balance sheet. Fees received or paid in connection with securities borrowed and loaned are treated as interest income or interest expense and accrued over the life of the transaction using the effective interest rate method.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

5. Significant accounting policies (continued)

5.18 Offsetting financial assets and liabilities

Financial assets and financial liabilities are offset and the net amount reported in the balance sheet when there is currently a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterparty.

5.19 Investments in JPMorgan Chase undertakings

Investments in JPMorgan Chase undertakings are stated at cost less impairment. Where the investments in the share capital of JPMorgan Chase undertakings are acquired by way of a dividend in kind, these are initially recognised at fair value (refer to Note 5.11). Investments in JPMorgan Chase undertakings are subsequently measured at cost less provision for impairment.

5.20 Business combinations

Combination of businesses under common control

Predecessor accounting is applied to transfers of businesses between entities under common control, where all combining entities are controlled by the same entity before and after the business acquisition. Assets and liabilities are recognised at their predecessor carrying amounts (i.e. the carrying amounts of assets and liabilities in the books and records of the transferor prior to the transfer) with no fair value adjustments. Any difference between the cost of acquisition and aggregate book value of the assets and liabilities on the date of transfer of the business is recognised as an adjustment to equity. As a result, no goodwill is recognised from the business combination.

5.21 Cash and cash equivalents

Cash and cash equivalents include cash and balances at banks and loans and advances to banks with maturities of three months or less.

5.22 Current and deferred income tax

Income tax payable on taxable profits (current tax) is recognised as an expense in the period in which the profits arise. Income tax recoverable on tax allowable losses is recognised as a current tax asset only to the extent that it is regarded as recoverable by offset against taxable profits arising in the current or prior period. Current tax is measured using tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date.

Deferred tax is provided in full, using the liability method, on temporary differences arising from the differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax is determined using tax rates and legislation enacted or substantively enacted by the balance sheet date, which are expected to apply when the deferred tax asset is realised or the deferred tax liability is settled. Deferred tax assets and liabilities are only offset when there is both a legal right and an intention to settle on a net basis. Current tax and deferred tax are recognised directly in equity if the tax relates to items that are recognised in the same or a different period in equity.

5.23 Provisions and contingent liabilities

Provisions are recognised when the Company has a present legal or constructive obligation as a result of past events, it is probable that an outflow of economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

A contingent liability is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one of more uncertain future events not wholly within the control of the Company, or a present obligation that arises from past events but is not recognised because either an outflow of economic benefits is not probable or the amount of the obligation cannot be reliably measured. Contingent liabilities are not recognised in the financial statements; however disclosure is made unless the probability of settlement is remote.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

5. Significant accounting policies (continued)

5.24 Pensions and other post-retirement benefits

The Company participates in both a closed defined benefit and on-going defined contribution scheme in the UK. The Company also operates defined benefit and defined contribution schemes for employees in the European branches.

i. Defined contribution scheme

A defined contribution plan is a pension plan under which the Company pays a defined level of contributions. Obligations for contributions to defined contribution pension plans are recognised as an expense and charged to the income statement on an accrual basis.

ii. Defined benefit scheme

For defined benefit schemes, the service cost of providing retirement benefits to employees during the year is charged to the income statement in accordance with IAS 19 'Employee benefits'. The pension costs are assessed based on the advice of qualified actuaries so as to recognise the full cost of provision of contracted pension benefits over the period of employees' service lives.

The defined benefit schemes' liabilities are measured on an actuarial basis and scheme assets measured at their fair values separately for each plan. Any surplus or deficit of scheme assets over liabilities is recognised on the balance sheet as an asset (surplus) or liability (deficit). The current service cost and any past service costs together with the expected return on scheme assets less the unwinding of discount on the scheme liabilities is charged to the income statement. Actuarial gains and losses are recognised in full in the period in which they occur in other comprehensive income and presented in equity in the period in which they occur.

5.25 Share-based payment awards

Share-based payment awards may be made to employees of the Company under the Firm's incentive awards schemes. The fair value of any such shares, rights to shares or share options is measured when the conditional award is made. This value is recognised as the compensation expense to the Company over the period to which the performance criteria relate together with employer's social security expenses or other payroll taxes. All of the awards granted are equity settled. The Company estimates the level of forfeitures and applies this forfeiture rate at the grant date.

5.26 Discontinued operation

A discontinued operation is a component of the Company's business, the operations and cash flows of which can be clearly distinguished from the rest of the Company and which:

- i. represents a separate major line of business or geographical area of operations;
- ii. is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations; or
- iii. a subsidiary acquired exclusively with a view to resale

Classification as a discontinued operation occurs at the earlier of disposal or when the operation meets the criteria to be classified as held-for-sale.

The impact to the statement for profit or loss and other comprehensive income from discontinued operations is presented on Page 73. For impact on cash flows and balance sheet, please see Note 16.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

6. Segment Reporting

Business segments

The Company is not in scope of IFRS 8 'Operating segments', as its debt or equity are not traded on a public market, therefore segmental analysis of the Company's revenue and assets by business is not required.

Geographical segments

The Company operates in three geographic regions as listed below:

- EMEA
- AMERICAS
- APAC

The following table presents revenues from business activities and total assets by geographic area.

	EMEA		AMERICAS		APAC		Total	
	2021	2020	2021	2020	2021	2020	2021	2020
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Interest and similar income	2,974,442	3,008,695	795,572	670,181	257,769	369,333	4,027,783	4,048,209
Fee and commission income	3,238,796	2,898,785	396,341	443,209	294,470	265,693	3,929,607	3,607,687
Trading profit	2,696,310	4,068,357	150,663	344,656	1,702,418	1,199,810	4,549,391	5,612,823
Total assets	424,499,484	473,539,083	215,134,002	271,459,407	76,159,960	91,284,505	715,793,446	836,282,995

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

7. Interest income and interest charges and similar income and charges

Interest income and interest expense includes the current-period interest accruals, as applicable.

Details of interest income and interest expense were as follows, including similar income and expenses:

	2021	2020
	\$'000	\$'000
Interest income on financial instruments at amortised cost and FVOCI		
Loans and advances to banks	33,887	84,483
Loans and advances to customers	159,881	231,707
Securities purchased under agreements to resell	13,062	88,188
Other (a)	331,763	212,736
Total interest income on financial instruments at amortised cost and FVOCI	538,593	617,114
Other similar income		
Financial assets at fair value through profit or loss	1,959,686	1,589,789
Securities purchased under agreements to resell measured at fair value through profit or loss	1,154,890	1,447,624
Securities borrowed	374,614	393,682
Total other similar income	3,489,190	3,431,095
Total Interest and similar income	4,027,783	4,048,209
Interest expense on financial instruments at amortised cost		
Amounts owed to JPMorgan Chase undertakings	1,036,319	1,565,032
Other (a)	125,657	170,835
Total interest expense on financial instruments at amortised cost	1,161,976	1,735,867
Other similar expense		
Financial liabilities at fair value through profit or loss	440,183	525,644
Securities sold under agreements to repurchase	707,327	815,461
Securities loaned	738,389	686,315
Total other similar expense	1,885,899	2,027,420
Total interest and similar expense	3,047,875	3,763,287

(a) Other interest income is interest income on customer receivables. Other interest expense is interest charges on customer payables.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

7. Interest income and interest charges and similar income and charges (continued)

Interest income and expense and similar income and expense with JPMorgan Chase undertakings:

	2021 \$'000	2020 \$'000
Interest income on financial instruments at amortised cost and FVOCI		
Loans and advances to banks	7,218	19,353
Securities purchased under agreements to resell	13,062	88,188
Other	7,988	85,040
Total interest income on financial instruments at amortised cost and FVOCI	28,268	192,581
Other similar income		
Financial assets at fair value through profit or loss	—	52,943
Securities purchased under agreements to resell measured at fair value through profit or loss	234,409	177,204
Securities borrowed	149,291	117,169
Total other similar income	383,700	347,316
Total Interest and similar income	411,968	539,897
Interest expense on financial instruments at amortised cost		
Amounts owed to JPMorgan Chase undertakings	1,036,319	1,565,032
Other	74,931	2,545
Total interest expense on financial instruments at amortised cost	1,111,250	1,567,577
Other similar expense		
Securities sold under resale agreement	478,284	495,342
Securities loaned	131,687	47,579
Total other similar expense	609,971	542,921
Total interest and similar expense	1,721,221	2,110,498

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

8. Fee and commission income

Fee and commission income consists of the following non-interest revenue streams of investment banking, lending and deposit related fees and commissions and other income.

The following table presents the components of these fees:

	2021	2020
	\$'000	\$'000
Investment banking fees		
Underwriting		
Equity	396,702	426,899
Debt	486,778	764,776
Total underwriting	883,480	1,191,675
Advisory	923,648	611,211
Total investment banking fees	1,807,128	1,802,886
 Lending and deposit related fees		
Lending related fees	11,993	12,428
Total lending and deposit related fees	11,993	12,428
 Commissions and other fees		
Commissions and fees with JPMorgan Chase undertakings	2,062,661	1,785,485
Total commissions and other fees	2,062,661	1,785,485
 Other fee and commission income	47,825	6,888
Total fee and commission income	3,929,607	3,607,687

9. Other income

	2021	2020
	\$'000	\$'000
Other Income	38,645	92,491
	38,645	92,491

Other income contains predominantly consideration received for employees relocated to J.P. Morgan AG ^(a).

(a) Following a merger of J.P. Morgan Bank Luxembourg S.A. ("JPMBL"), J.P. Morgan Bank Ireland ("JPMBI") and J.P. Morgan AG ("JPMAG") on 22 January 2022, a new entity was created J.P. Morgan SE ("JPMSE").

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

10. Expected credit loss on loans and advances to customers, and lending related commitments

	2021	2020
	\$'000	\$'000
Expected credit loss on loans and advances to customers		
Expected credit loss balance as at 1 January	48,088	4,812
Impairment write off	—	—
(Decrease)/Increase in expected credit loss during the year	(25,844)	43,276
Closing expected credit loss provision on loans and advances to customers as at 31 December	22,244	48,088
Expected credit loss on lending related commitments		
Expected credit loss balance as at 1 January	72,541	4,877
(Decrease)/Increase in expected credit loss during the year	(55,866)	67,664
Closing expected credit loss provision on lending related commitments as at 31 December	16,675	72,541
Expected credit loss (decrease)/increase	(81,710)	110,940

Disclosures in relation to the Credit Risk of the above have been presented in the Strategic report on pages 15 - 23.

11. Directors' emoluments

	2021	2020
	\$'000	\$'000
Aggregate emoluments	2,604	1,816
Total contributions to a defined contribution plan	1	2
Compensation to non-executive directors	932	563
Number of directors who exercised share options	1	2
Number of directors with shares received or receivable under LTIPs	5	6
Number of directors to whom defined contribution pension rights accrued	3	4

In accordance with the Companies Act 2006, the directors' emoluments above represent the proportion paid or payable in respect of qualifying services to the Company including LTIPs (Long Term Incentive Plan) of \$883,973 in 2021 (2020:\$663,740). Directors also received emoluments for non-qualifying services, which are not required to be disclosed.

Highest paid director

The emoluments of the highest paid director were \$576,740 (2020: \$582,632).

The contribution to the defined contribution scheme for the highest paid director during 2021 was \$108 (2020: \$517). The highest paid director did exercise share options during the year. During the year, shares were received or are receivable by the highest paid director under long-term incentive plans. The total value of long term incentive plans for the highest paid director during 2021 was \$266,978 (2020: \$773,900).

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

12. Audit fees

	2021	2020
	\$'000	\$'000
Auditors' remuneration for the audit of the Company's annual financial statements	4,944	4,701
Audit-related assurance services (provided by the auditors)	1,782	2,127
	6,726	6,828

Audit-related assurance services include the Company's share of fees related to services provided by a network firm of the Company's auditors to various JPMC undertakings. These fees were apportioned to the various JPMC undertakings, including the Company, by reference to each entity's asset size or participation in the control environment.

13. Profit before taxation

	2021	2020
	\$'000	\$'000
Profit before taxation is stated after charging/crediting:		
Depreciation of tangible fixed assets	478	544
Change in bank levy provision	(24,436)	81,996
Wages and salaries	909,643	961,575
Social security costs	197,120	175,723
Other pension costs	47,796	68,699
Share-based awards	355,265	354,035

The average monthly number of persons employed by the Company was 1,901 (2020: 2,295), of which none (2020: 7) are on secondment to another JPMorgan Chase undertaking.

The average monthly number of staff employed by the European branches during the year was 19 (2020: 187), of which none are in the Commercial Bank (2020: 14), 18 in the Corporate and Investment Bank (2020: 170) and 1 in the Corporate sector (2020: 2). 1,894 London based employees are in Corporate and Investment Banking (2020: 2,295), and 7 London based employees are in Commercial Banking (2020: Nil).

There were no material gains or losses from the disposal of amortised cost assets during the year.

14. Tax on profit

	2021	2020
	\$'000	\$'000
(a) Analysis of tax charge for the year		
Current taxation		
UK Corporation tax on profit for the year	509,554	862,721
Overseas taxation	530,965	522,032
Less: Double tax relief	(323,195)	(270,993)
Adjustments in respect of previous years	(35,506)	10,809
Current tax expense for the year	681,818	1,124,569
Deferred tax (note 15):		
Origination and reversal of temporary differences	(7,888)	(19,581)
Effect of changes in tax rates	(21,193)	—
Deferred tax credit for the year	(29,081)	(19,581)
Total tax expense for the year	652,737	1,104,988

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

14. Tax on profit (continued)

(b) Factors affecting the current tax charge for the year

The current tax charge for the year differs from the standard rate of corporation tax in the UK including banking surcharge (27.00%). The differences are explained below:

	2021	2020
	\$'000	\$'000
Profit before taxation	2,374,545	3,083,719
Profit before taxation multiplied by standard rate of corporation tax in UK of 19.00% plus banking surcharge of 8% (2020: 19.00% plus 8% banking surcharge).	641,127	832,604
Effects of:		
Non-deductible expenses	7,060	29,979
Income not taxable	(104,118)	(31,654)
Transfer pricing adjustments	(3,829)	8,970
Adjustments in respect of previous years	(35,506)	10,809
Tax rate changes	(21,193)	—
Foreign taxation suffered	207,771	251,037
Impact of share based payments	(11,357)	(19,693)
Chargeable Gains	13,987	22,936
Effects of group relief/ other reliefs	(41,205)	—
Total tax expense for the year	652,737	1,104,988

15. Deferred tax

The analysis of deferred tax assets and deferred tax liabilities is as follows:

	2021	2020
	\$'000	\$'000
Deferred tax assets:		
Deferred tax assets to be recovered after more than 12 months	167,422	140,096
Deferred tax asset to be recovered within 12 months	83,711	70,048
	251,133	210,144
Deferred tax liabilities:		
Deferred tax liability to be reversed after more than 12 months	(19,660)	(23,135)
Deferred tax liability to be reversed within 12 months	503	143
	(19,157)	(22,992)
Deferred tax asset (net)	231,976	187,152

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

15. Deferred tax (continued)

The gross movement on the deferred income tax account is as follows:

	2021	2020
	\$'000	\$'000
As at 1 January	187,152	190,874
Depreciation in excess of capital allowances	(131)	(333)
Deferral of share-based payments	55,273	(2,970)
Other adjustment	(10,318)	(419)
As at 31 December	231,976	187,152

The movement in deferred income tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

Deferred tax asset	Accelerated capital allowances	Share-based payments	Other	Total
	\$'000	\$'000	\$'000	\$'000
At 1 January 2020	2,576	186,311	1,987	190,874
(Charged)/credited to the income statement	(333)	20,771	(856)	19,582
Charged directly to equity	—	(23,742)	—	(23,742)
Credited directly to other comprehensive income	—	—	438	438
At 31 December 2020	2,243	183,340	1,569	187,152
(Charged)/credited to the income statement	(131)	29,420	(208)	29,081
Credited directly to equity	—	25,853	—	25,853
Charged directly to other comprehensive income	—	—	(10,110)	(10,110)
At 31 December 2021	2,112	238,613	(8,749)	231,976

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

16. Discontinued Operations

J.P. Morgan Securities plc - Stockholm Bankfilial, J.P. Morgan Securities plc - Milan Branch and J.P. Morgan Securities plc Sucursal en Espana have been closed and de-registered and meet the criteria to be presented as discontinued operations. In addition J.P. Morgan Securities plc - Frankfurt Branch and J.P. Morgan Securities plc - Paris Branch have ceased business operations and all assets and liabilities held for business operations have been disposed of. As such these branches also meet the criteria to be considered discontinued operations.

J.P. Morgan Securities plc Zurich branch will continue to operate as a branch in the Company with no plan of transfer or closure.

The table below represents the assets and liabilities held for sale:

Year ended 31 December	2021	2020
	\$'000	\$'000
Assets held for sale		
Loans and advances to banks ^(a)	68,684	148,384
Debtors ^(b)	21,387	42,422
Other Assets	—	4,450
Tangible Assets	—	52
	90,071	195,308
Liabilities held for sale		
Amounts owed to JPMorgan Chase undertakings	19,636	5,389
Trade Creditors ^(c)	11,648	63,630
Other liabilities	27,666	87,745
	58,950	156,764

(a) Loans and advances to banks include balances held with JPMorgan Chase undertakings of \$60.8 million (2020: \$140.0 million).

(b) Debtors include balances with JPMorgan Chase undertakings of \$5.4 thousand (2020: \$10.8 million).

(c) Trade Creditors includes balances held with JPMorgan Chase undertakings of \$14.2 million (2020: \$61.9 million).

The table below presents the net cash flows attributable to discontinued operations.

Year ended 31 December	2021	2020
	\$'000	\$'000
Net cash flows from:		
Net cash used in Operating activities	(83,398)	(7,803)
Net cash generated from Investing activities	52	60
Net cash generated from/(used in) Financing activities	14,247	(10,368)

17. Loans and advances to banks

	2021	2020
	\$'000	\$'000
Loans and advances to banks		
Amortised cost	7,853,765	8,152,288

Included within loans and advances to banks is \$4.5 billion (2020: \$4.5 billion) held with JPMorgan Chase undertakings.

The Company maintains certain client money balances with banks and clearing houses which principally arise where it acts on behalf of its clients as a clearing member for derivatives that are cleared through central counterparties. The Company has considered its rights and obligations relating to these balances. These balances are held subject to client money protection under the Client Assets Sourcebook rules, and the Company concluded that such amounts should not be recognised on its balance sheet as they are not assets of the Company. Therefore, client money assets amounting to \$16.6 billion (2020: \$17.3 billion) have not been recognised on the Company's balance sheet, \$5.0 billion (2020: \$5.8 billion) from loans and advances to banks and \$11.6 billion (2020: \$11.5 billion) from debtors respectively.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

18. Loans and advances to customers

The Company's loan portfolio is within the wholesale loan segment. Wholesale loans include loans made to a variety of customers, such as large corporates and institutional clients. The credit quality and analysis of concentration of loans and advances to customers is managed within the Firm's Credit Risk Management function, refer to the Strategic Report.

	2021	2020
	\$'000	\$'000
Loans and advances to customers		
Amortised cost	377,474	468,019
FVOCI	427,659	570,235
	805,133	1,038,254
Expected credit loss impairment		
Amortised cost	(5,620)	(6,538)
FVOCI	—	(41,550)
	799,513	990,166

19. Securities financing activities

JPMS plc enters into resale agreements, repurchase agreements, securities borrowed and securities loaned transactions (collectively, "securities financing agreements") primarily to finance the Company's inventory positions, acquire securities to cover short positions, accommodate customers' financing needs, and settle other securities obligations.

Securities purchased and securities sold under agreements to resell/repurchase and securities borrowed and securities loaned transactions are generally carried at the amount of cash collateral advanced or received.

Secured financing transactions expose the Company to credit and liquidity risk. To manage these risks, the Company monitors the value of the underlying securities (predominantly high-quality securities collateral, including government-issued debt and agency mortgage-backed securities) that it has received from or provided to its counterparties compared to the value of cash proceeds and exchanged collateral, and either requests additional collateral or returns securities or collateral when appropriate. Margin levels are initially established based upon the counterparty, the type of underlying securities, and the permissible collateral, and are monitored on an ongoing basis.

In resale agreements and securities borrowed transactions, the Company is exposed to credit risk to the extent that the value of the securities received is less than initial cash principal advanced and any collateral amounts exchanged. In repurchase agreements and securities loaned transactions, credit risk exposure arises to the extent that the value of underlying securities exceeds the value of the initial cash principal advanced, and any collateral amounts exchanged.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

19. Securities financing activities (continued)

Additionally, the Company typically enters into master netting agreements and other similar arrangements with its counterparties, which provide for the right to liquidate the underlying securities and any collateral amounts exchanged in the event of a counterparty default. It is also the Company's policy to take possession, where possible, of the securities underlying resale agreements and securities borrowed transactions.

Refer to Note 34 for additional information on netting arrangements.

	2021	2020
	\$'000	\$'000
Securities purchased under agreements to resell		
Amortised cost	50,980,338	48,699,654
FVTPL	134,034,972	175,336,941
	185,015,310	224,036,595
Securities borrowed		
FVTPL	53,966,173	40,814,802
	53,966,173	40,814,802
Securities sold under agreements to repurchase		
FVTPL (designated)	104,659,364	142,452,605
	104,659,364	142,452,605
Securities loaned		
FVTPL (designated)	9,162,653	11,851,953
	9,162,653	11,851,953

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

19. Securities financing activities (continued)

Securities financing transaction balances include the following amounts held with other JPMorgan Chase undertakings:

	2021	2020
	\$'000	\$'000
Securities purchased under agreements to resell		
Amortised cost	50,980,338	48,699,654
FVTPL	53,156,533	35,230,709
	104,136,871	83,930,363
Securities borrowed		
FVTPL	7,197,544	13,300,154
	7,197,544	13,300,154
Securities sold under agreements to repurchase		
FVTPL (designated)	52,492,007	85,903,802
	52,492,007	85,903,802
Securities loaned		
FVTPL (designated)	8,501,614	10,436,940
	8,501,614	10,436,940

20. Financial assets at fair value through profit or loss

Within its client-driven market-making activities, the Company transacts in debt and equity instruments, derivatives and loans.

	2021	2020
	\$'000	\$'000
Debt and equity instruments	118,663,020	109,651,688
Derivative receivables	216,649,936	316,569,865
Loans	4,455,065	5,746,025
	339,768,021	431,967,578

Financial assets at fair value through profit or loss includes \$124 billion held with JPMorgan Chase undertakings (2020: \$173 billion).

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

21. Debtors

	2021	2020
	\$'000	\$'000
Trade debtors	63,362,874	53,048,348
Other debtors	49,783,510	62,714,864
	113,146,384	115,763,212

Trade debtors mainly consists of unsettled trades. Other debtors includes \$45.5 billion of cash collateral provided on derivatives (2020: \$58.1 billion).

Debtors includes the following balances from JPMorgan Chase undertakings:

	2021	2020
	\$'000	\$'000
Trade debtors	40,155,584	28,285,265
Other debtors	25,438,133	35,549,326
	65,593,717	63,834,591

Trade debtors with JPMorgan Chase undertakings mainly consists of accounts receivable and unsettled trades. Other debtors includes \$25 billion of cash collateral provided on derivatives (2020: \$35 billion).

22. Other assets

	2021	2020
	\$'000	\$'000
Deferred taxation	231,976	187,152
Taxation and social security ^(a)	744,232	74,048
Prepayments	6,032	6,454
Accrued income	699,590	664,472
	1,681,830	932,126

(a) Taxation and social security includes provisions for corporate tax, overseas tax and bank levy. Due to a change in presentation in 2021, taxation and social security also includes withholding tax recoverable of \$402.6 million, which in 2020 was disclosed in trade debtors (2020: \$420.8 million).

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

23. Investments in JPMorgan Chase undertakings

	2021	2020
	\$'000	\$'000
Investments in JPMorgan Chase undertakings at cost		
At 1 January	26,937	17,886
Distribution of shares for no consideration	—	15,616
Write down ^(a)	(25,888)	(6,565)
At 31 December	1,049	26,937

(a) In 2021, the receipt of \$37.5 million dividend from wholly owned subsidiary Cazenove Group Limited and purchase of Cazenove brand triggered a review of the carrying amount of the Company's investment in that entity. The investment was written down by \$25.9 million.

J.P. Morgan Limited ("JPML") signed a waiver of dividend on 12 February 2015 to irrevocably waive all rights and entitlement in respect of its entire 48.788% shareholding in J.P. Morgan Cazenove Holdings ("JPMCH"). On 29 July 2020 JPML's shares in JPMCH were cancelled. As a result, the parent, Cazenove Holdings Limited's ("CHL") investment in JPMCH increased by the amount that had previously been recorded by JPML. This distribution was ultimately also reflected in the parent J.P. Morgan Capital Holdings Limited ("JPMCHL"). The investment in Cazenove Group Limited ("CGL") has been written down by \$6.6 million.

The holdings of the Company are as follows:

Name	Address of subsidiary	Principal activity	Holding	Shares held %
Greenwood Nominees Limited	25 Bank Street, Canary Wharf, London, E14 5JP, England	Nominee company	Direct	100
Cazenove Group Limited	Ensign House, 29 Seaton Place, St. Helier, JE2 3QL, Jersey	Holding company	Direct	100
J.P. Morgan Prime Nominees Ltd.	25 Bank Street, Canary Wharf, London, E14 5JP, England	Nominee company	Direct	100
J.P. Morgan Services LLP	25 Bank Street, Canary Wharf, London, E14 5JP, England	Dormant company	Direct	57
Cazenove Holdings Limited	Ensign House, 29 Seaton Place, St. Helier, JE2 3QL, Jersey	Holding company	Indirect	100
Cazenove IP Limited	25 Bank Street, Canary Wharf, London, E14 5JP, England	Investment company	Indirect	100
JPMorgan Cazenove Holdings	25 Bank Street, Canary Wharf, London, E14 5JP, England	Holding company	Indirect	100
J.P. Morgan Cazenove Limited	25 Bank Street, Canary Wharf, London, E14 5JP, England	Investment company	Indirect	100
JPMorgan Cazenove Service Company	25 Bank Street, Canary Wharf, London, E14 5JP, England	Service company	Indirect	100
Almea 2 Segregated Portfolio Company ^(a)	383 Madison Avenue, New York, NY, 10179, United States	Hedge Fund	Indirect	0

(a) Almea 2 Segregated Portfolio Company is 100% owned by J.P. Morgan International Finance Ltd, but after 2019 is deemed a VIE and JPMS plc effectively controls and benefits from the Segregated Portfolio company.

The above investments are shown at cost less any provision for impairment. In the opinion of the directors, the value of the Company's investment in each subsidiary undertaking is not less than the amount at which it is stated in the balance sheet.

All shares held in the above subsidiaries are ordinary shares.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

24. Unconsolidated structured entities

Structured entities

The Company engages in various business activities with structured entities which are designed to achieve specific business purposes. A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as, when any voting rights relate to administrative tasks only and the relevant activities are directed by means of other contractual arrangements.

Typically, structured entities have one or more of the following characteristics:

- an insufficient amount of at-risk equity to permit the entity to finance its activities without additional subordinated financial support;
- equity at-risk owners that, as a group, are not able to make significant decisions relating to the entity's activities through voting rights or similar rights; or
- equity at-risk owners that do not absorb the entity's losses or receive the entity's residual returns.

The most common type of structured entity is a special purpose entity ("SPE"). SPEs are commonly used in securitisation transactions in order to isolate certain assets and distribute the cash flows from those assets to investors. The party that has power to direct the most significant activities of the entity and an exposure to the risks of the entity (together constituting control of the entity) is required to consolidate the assets and liabilities of the structured entity.

The Company has involvement with various structured entities, established by the Firm or by third parties. These typically include securitisations, credit linked notes ("CLN") and asset swap vehicles.

- Securitisations - Residential and commercial mortgage-backed and other asset-based entities: the Company invests in securities generally issued by third party sponsored structured entities. The Company is not able to make significant decisions relating to the entity's activities through voting rights or similar rights.
- CLN and asset swap vehicles: the Company's involvement with CLN and asset swap vehicles is generally limited to being a derivative counterparty. The Company does not provide any additional contractual financial support to the structured entities over and above its contractual obligations as derivative counterparty, but may also make a market in the notes issued by such structured entities, although it is under no obligation to do so. As a derivative counterparty the assets held by the structured entities serve as collateral for any derivatives receivables.

Interest in unconsolidated structured entities

The Company's interest in an unconsolidated structured entity is considered as the contractual and non-contractual involvement that exposes the Company to variability of returns from the performance of the structured entity but not deemed a subsidiary.

The following table shows, by type of structured entity, the Company's interest in unconsolidated structured entities recognised on the balance sheet. The maximum exposure to loss is determined by considering the nature of the interest in the underlying unconsolidated structured entity. The maximum exposure for loans and securities is reflected by their carrying amounts. The maximum exposure for off balance sheet commitments such as guarantees, liquidity facilities and loan commitments is reflected by the notional amounts. The maximum exposure for asset swap vehicles and credit related notes is determined based on the amount of collateral. The maximum exposure for traded derivatives is reflected by their carrying value which is gross MTM excluding any ineligible netting.

The table also provides an indication of the size of the structured entities, measured by the total assets held in the structured entity. The carrying amounts do not necessarily reflect the risks faced by the Company, as factors such as economic hedges and effect of collateral held by the Company are not included.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

24. Unconsolidated structured entities (continued)

	Fair value of assets held by SPE	Interest in unconsolidated structured entities		Total
		Financial assets and liabilities at fair value through profit and loss	Financial assets and liabilities not at fair value through profit and loss	
31 December 2021	\$'000	\$'000	\$'000	\$'000
Residential mortgage-backed vehicles	39,860,339	510,593	—	510,593
Commercial mortgage-backed vehicles	7,623,825	37,237	—	37,237
Other asset-backed vehicles	35,807,444	191,259	39,005	230,264
Covered Bonds	20,662,896	111,172	—	111,172
Derivative and Note issuances	43,480,414	1,576,098	—	1,576,098
Total assets	147,434,918	2,426,359	39,005	2,465,364
Commitments	—	—	—	—
Maximum exposure to loss	147,434,918	2,426,359	39,005	2,465,364
Total liabilities	—	587,310	—	587,310

	Fair value of assets held by SPE	Interest in unconsolidated structured entities		Total
		Financial assets and liabilities at fair value through profit and loss	Financial assets and liabilities not at fair value through profit and loss	
31 December 2020	\$'000	\$'000	\$'000	\$'000
Residential mortgage-backed vehicles	61,135,743	726,305	67,799	794,104
Commercial mortgage-backed vehicles	20,937,977	44,884	—	44,884
Other asset-backed vehicles	37,254,237	250,792	366,839	617,631
Credit-related notes and asset swap vehicles	489,560	121	—	121
Covered Bonds	19,621,921	71,028	—	71,028
Derivative and Note issuances	44,938,474	1,561,381	—	1,561,381
Financing and prepaid share options	812,468	669,309	—	669,309
Total assets	185,190,380	3,323,820	434,638	3,758,458
Commitments	—	—	49,350	49,350
Maximum exposure to loss	185,190,380	3,323,820	483,988	3,807,808
Total liabilities(a)	—	327,026	—	327,026

25. Financial liabilities at fair value through profit or loss

	2021	2020
	\$'000	\$'000
Debt and equity instruments	35,429,874	28,477,288
Derivative payables	223,160,706	316,185,898
	258,590,580	344,663,186

Financial liabilities at fair value through profit or loss includes \$133 billion held with JPMorgan Chase undertakings (2020: \$190 billion).

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

26. Financial liabilities designated at fair value through profit or loss

Debit valuation adjustments ("DVA") represents the adjustment, relative to the relevant benchmark interest rate, necessary to reflect the credit quality of the Company in the valuation of liabilities measured at fair value. The Company also incorporates the impact of funding in its valuation estimates where there is evidence that a market participant in the principal market would incorporate it in a transfer of the instrument.

DVA on financial liabilities that the Company has designated as measured at FVTPL reflects changes (subsequent to the issuance of the liability) in the Company's probability of default and loss given default, which are estimated based on changes in the Firm's credit spread observed in the bond market.

The table below sets out the cumulative DVA, carrying amount and contractual amounts due at maturity of the Company's financial liabilities designated as measured at FVTPL split by DVA presentation:

31 December 2021			
\$ '000	Cumulative DVA recognised in OCI	Carrying amount of financial liabilities	Contractual amount of financial liabilities due at maturity
Other financial liabilities	63,202	31,898,690	31,898,690
Financial liabilities designated at FVTPL	63,202	31,898,690	31,898,690

At 31 December 2020			
\$ '000	Cumulative DVA recognised in OCI	Carrying amount of financial liabilities	Contractual amount of financial liabilities due at maturity
Other financial liabilities	22,186	28,611,965	28,611,965
Financial liabilities designated at FVTPL	22,186	28,611,965	28,611,965

Carrying amount of financial liabilities with JPM chase undertakings is \$26.7 billion (2020: \$23.8 billion).

The table above does not include securities sold under agreements to repurchase of \$104.7 billion (2020: \$142.5 billion) or securities loaned of \$9.2 billion (2020: \$11.9 billion) that the Company has designated as measured at FVTPL as the collateral arrangements fully cover the secured liabilities; as a result, there was no adjustment for the Company's own credit risk for these agreements.

There were no DVA gains/losses recognised in other comprehensive income on financial liabilities that were derecognised during the period (2020: Nil).

27. Other liabilities

	2021	2020
	\$'000	\$'000
Trade creditors ^(a)	53,158,517	46,712,298
Other liabilities:		
Accruals and deferred income	1,827,502	1,738,333
Other ^(b)	28,864,463	43,687,265
Total other liabilities	30,691,965	45,425,598
Total trade creditors and other liabilities	83,850,482	92,137,896

(a) Trade creditors predominantly consists of unsettled trades, brokerage fees payable and liabilities in respect of assets transferred but not derecognised (note 37) and includes \$18.0 billion with other JPMorgan Chase undertakings (2020: \$13.1 billion). Amounts owed to JPMorgan Chase undertakings presented on the balance sheet represents financing and collateral arrangements with other JPMorgan Chase undertakings.

(b) Other includes \$28.7 billion (2020: \$42.9 billion) of cash collateral received related to OTC derivatives.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

28. Subordinated liabilities with JPMorgan Chase undertakings

The following loan is unsecured and is subordinated in right of payment to the ordinary creditors, including depositors, as follows:

Lender	Dated	Interest	2021 \$'000	2020 \$'000
J.P. Morgan Capital Holdings Limited	2028	1.55% above Compounded SOFR ^(a)	12,000,000	12,000,000

(a) Also includes a 0.13% adjustment spread.

The loan is comprised of tier 2 qualifying subordinated notes issued as part of the Firm's strategy to comply with a 'minimum requirement for own funds and eligible liabilities' ("MREL").

29. Called-up share capital

	2021 \$'000	2020 \$'000
Issued and fully paid share capital		
At 1 January		
1,244,343 ordinary shares (2020: 1,244,343) of \$10,000 each	12,443,430	12,443,430
50,000 ordinary shares (2020: 50,000) of £1.24 each	100	100
2 ordinary shares (2020: 2) of £1 each	—	—
Movements during the year	—	—
At 31 December		
1,244,343 ordinary shares (2020: 1,244,343) of \$10,000 each	12,443,430	12,443,430
50,000 ordinary shares (2020: 50,000) of £1.24 each	100	100
2 ordinary shares (2020: 2) of £1 each	—	—
	12,443,530	12,443,530

The ordinary shares (at the three different price points) each provide the right to its owner to share in the profits of the Company and to vote at general meetings of the Company. Any amounts distributed to ordinary shareholders are paid proportionately to the amount which is paid up on the ordinary shares (\$10,000USD/ £1.24/ £1). None of the ordinary shares carry rights of redemption.

The share premium is the premium paid for new shares above their nominal value. It is a statutory reserve which forms part of a Company's non-distributable reserves.

30. Dividends

The Company paid a dividend of \$1.75 billion (2020: \$250 million) to J.P. Morgan Capital Holdings Limited (\$1,352 dividend per share) on the 30 March 2021.

On 24 March 2022, the Board approved an interim dividend of \$2.5 billion to J.P.Morgan Capital Holdings Limited, which is planned to be paid in April 2022.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

31. Notes to the statement of cash flows

	2021	2020
	\$'000	\$'000
Profit before income taxation	2,374,545	3,083,719
Adjustments for:		
Depreciation of tangible fixed assets	478	544
Impairment of investments in JPMorgan Chase undertakings	25,888	6,565
Other non-cash movements	(367,422)	(1,998,305)
Operating cash flows before changes in operating assets and liabilities	2,033,489	1,092,523
Changes in operating assets		
Decrease in loans and advances to customers	190,653	423,936
Decrease/(increase) in securities purchased under resale agreements	39,021,285	(81,428,823)
Increase in securities borrowed	(13,151,371)	(3,866,262)
Decrease/(increase) in financial assets at fair value through profit or loss	92,199,557	(51,032,657)
Decrease/(increase) in debtors and other assets	1,901,820	(27,606,925)
(Increase)/decrease in prepayments and accrued income	(34,696)	262,580
	120,127,248	(163,248,151)
Changes in operating liabilities		
(Decrease)/increase in securities sold under repurchase agreements	(37,793,241)	76,847,786
Decrease in securities loaned	(2,689,300)	(159,173)
(Decrease)/Increase in financial liabilities at fair value through profit or loss	(86,072,606)	30,164,276
Increase in financial liabilities designated at fair value through profit or loss	3,286,725	4,330,438
Increase in trade creditors	6,446,219	8,787,735
Increase/(decrease) in other liabilities	(14,822,802)	13,596,033
Increase/(decrease) in accruals and deferred income	89,169	(294,985)
	(131,555,836)	133,272,110
Cash used in from operating activities	(9,395,099)	(28,883,518)

The Company maintains certain client money balances which principally arise where it acts on behalf of its clients as a clearing member for derivatives that are cleared through central counterparties. Loans and advances to banks contain an amount of \$187 million (2020: \$260 million) placed in a segregated account to allow the Company to make good a shortfall in client money.

In the table above, cash generated from operations included interest paid of \$(2.8) billion (2020: \$(4.1) billion) and interest received of \$3.8 billion (2020: \$4.4 billion).

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

32. Commitments

Lending-related commitments and guarantees

The Company provides lending-related financial instruments (e.g., commitments and guarantees) to meet the financing needs of its customers. The contractual amount of these financial instruments represents the maximum possible credit risk to the Company should the counterparty draw upon the commitment or the Company be required to fulfil its obligation under the guarantee, and should the counterparty subsequently fail to perform according to the terms of the contract. Most of these commitments and guarantees expire without being drawn or a default occurring. As a result, the total contractual amount of these instruments is not, in the Company's view, representative of its actual future credit exposure or funding requirements.

	2021	Restated ^{(a) (b)} 2020
	\$'000	\$'000
Contractual amount		
Unused commitments on loans	4,823,593	11,489,350
Standby letters of credit and guarantees ^(a)	1,206,757	1,362,714
Total unused lending related commitments	6,030,350	12,852,064
 Other unused commitments ^(b)	 115,728,468	 123,312,518
Total unused contractual commitments	121,758,818	136,164,582
 Expected credit loss on unused lending related commitments (note 10)	 16,675	 72,541

(a) Following a review, the Company restated its December 20 'Standby letters of credit and guarantees' upwards by \$1.0 billion, related to inclusion of intercompany guarantees.

(b) Following a review, the Company restated its December 20, 'Other unused commitments' upwards by \$699 million, relating to capped commitments. Additionally, a further \$120.7 billion of forward dated securities financing transactions (repurchase agreements, reverse repurchase agreements, securities borrowed and securities lent) was newly incorporated to enhance the disclosure.

Lending related commitments to other JPMorgan Chase undertakings were \$99.06 billion (2020: \$5.76 billion). Other unused commitments consist of certain guarantees and commitments associated with the Company's membership in clearing houses.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value

Fair value

Valuation process

The Company carries a portion of its assets and liabilities at fair value on a recurring basis. Certain assets, liabilities and unfunded lending related commitments are measured at fair value on a non-recurring basis; that is, they are not measured at fair value on an ongoing basis but are subject to fair value adjustments only in certain circumstances (for example, when there is evidence of impairment).

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is based on quoted market prices or inputs, where available. If prices or quotes are not available, fair value is based on valuation models and other valuation techniques that consider relevant transaction characteristics (such as maturity) and use, as inputs, observable or unobservable market parameters, including yield curves, interest rates, volatilities, prices (such as commodity, equity or debt prices), correlations, foreign exchange rates and credit curves. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value, as described below.

The level of precision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Company believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgement and may vary across the Company's businesses and portfolios. The use of different methodologies or assumptions by other market participants compared with those used by the Company could result in a different estimate of fair value at the reporting date.

Risk-taking functions are responsible for providing fair value estimates for assets and liabilities carried on the balance sheet at fair value. The Firm's Valuation Control Group (VCG), which is part of the Firm's Finance function and independent of the risk-taking functions, is responsible for verifying these estimates and determining any fair value adjustments that may be required to ensure that the Company's positions are recorded at fair value. The valuation control function verifies fair value estimates provided by the risk-taking functions by leveraging independently derived prices, valuation inputs and other market data, where available. The Valuation Governance Forum (VGF) is composed of senior finance and risk executives and is responsible for overseeing the management of risks arising from valuation activities conducted across the Firm. The Firmwide VGF is chaired by the Firmwide head of the VCG (under the direction of the Firm's Controller), and includes sub-forums covering the CIB, CCB, CB, AWM and certain corporate functions including Treasury and CIO.

In determining the fair value of a derivative portfolio, valuation adjustments may be appropriate to reflect the credit quality of the counterparty, the credit quality of the Company, and the funding risk inherent in certain derivatives. The credit and funding risks of the derivative portfolio are generally mitigated by arrangements provided to the Company by JPMorgan Chase Bank, N.A. and therefore the Company takes account of these arrangements in estimating the fair value of its derivative portfolio.

Price Verification Process

The VCG verifies fair value estimates provided by the risk-taking functions by leveraging independently derived prices, valuation inputs and other market data, where available. Where independent prices or inputs are not available, the VCG performs additional review to ensure the reasonableness of the estimates. The additional review may include evaluating the limited market activity including client unwinds, benchmarking valuation inputs to those used for similar instruments, decomposing the valuation of structured instruments into individual components, comparing expected to actual cash flows, reviewing profit and loss trends, and reviewing trends in collateral valuation. There are also additional levels of management review for more significant or complex positions.

The VCG determines any valuation adjustments that may be required to the estimates provided by the risk-taking functions. No adjustments to quoted prices are applied for instruments classified within level 1 of the fair value hierarchy (refer to the discussion below for further information on the fair value hierarchy). For other positions, judgment is required to assess the need for valuation adjustments to appropriately reflect liquidity considerations, unobservable parameters, and, for certain portfolios that meet specified criteria, the size of the net open risk position.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Price Verification Process (continued)

The determination of such adjustments follows a consistent framework across the Firm:

- Liquidity valuation adjustments are considered where an observable external price or valuation parameter exists but is of lower reliability, potentially due to lower market activity. Liquidity valuation adjustments are made based on current market conditions. Factors that may be considered in determining the liquidity adjustment include analysis of: (1) the estimated bid offer spread for the instrument being traded; (2) alternative pricing points for similar instruments in active markets; and (3) the range of reasonable values that the price or parameter could take.
- The Firm manages certain portfolios of financial instruments on the basis of net open risk exposure and, as permitted by IFRS, has elected to estimate the fair value of such portfolios on the basis of a transfer of the entire net open risk position in an orderly transaction. Where this is the case, valuation adjustments may be necessary to reflect the cost of exiting a larger-than-normal market-size net open risk position. Where applied, such adjustments are based on factors that a relevant market participant would consider in the transfer of the net open risk position, including the size of the adverse market move that is likely to occur during the period required to reduce the net open risk position to a normal market-size.
- Uncertainty adjustments related to unobservable parameters may be made when positions are valued using prices or input parameters to valuation models that are unobservable due to a lack of market activity or because they cannot be implied from observable market data. Such prices or parameters must be estimated and are, therefore, subject to management judgment. Adjustments are made to reflect the uncertainty inherent in the resulting valuation estimate.

Valuation model review and approval

If prices or quotes are not available for an instrument or a similar instrument, fair value is generally determined using valuation models that consider relevant transaction terms such as maturity and use as inputs market-based or independently sourced parameters. The Model Risk function is independent of the model owners and reviews and approves valuation models used by the Company. Under the Firm's Estimations and Model Risk Management Policy, a dedicated independent function, Model Risk Governance and Review ("MRGR") reviews and approves new models, as well as material changes to existing models, prior to implementation in the operating environment. In certain circumstances exceptions may be granted to the Firm's policy to allow a model to be used prior to review or approval. The MRGR may also require the user to take appropriate actions to mitigate the model risk if it is to be used in the interim. These actions will depend on the model and may include, for example, limitation of trading activity.

Fair value hierarchy

The Company classifies its assets and liabilities according to a valuation hierarchy that reflects the observability of significant market inputs. The three levels are defined as follows:

Level 1 - inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 - inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3 - one or more inputs to the valuation methodology are unobservable and significant to the fair value measurement. A financial instrument's categorisation within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Valuation methodologies

The following table describes the valuation methodologies used by the Company to measure its more significant products/instruments at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Product/instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation hierarchy
Equity, debt, and other securities	Quoted market prices	Level 1
	<p>In the absence of quoted market prices, securities are valued based on:</p> <ul style="list-style-type: none"> • Observable market prices for similar securities • Relevant broker quotes • Discounted cash flows <p>In addition, the following inputs to discounted cash flows are used for the following products:</p> <p><i>Mortgage and asset-backed securities specific inputs:</i></p> <ul style="list-style-type: none"> • Collateral characteristics • Deal-specific payment and loss allocations • Current market assumptions related to yield, prepayment speed, conditional default rates and loss severity <p><i>Collateralized loan obligations ("CLOs") specific inputs:</i></p> <ul style="list-style-type: none"> • Collateral characteristics • Deal-specific payment and loss allocations • Expected prepayment speed, conditional default rates, loss severity • Credit spreads • Credit rating data 	Level 2 or 3
Derivatives and fully funded OTC instruments	Exchange-traded derivatives that are actively traded and valued using the exchange price.	Level 1
	<p>Derivatives that are valued using models such as the Black-Scholes option pricing model, simulation models, or a combination of models that use observable or unobservable valuation inputs as well as considering the contractual terms.</p> <p>The key valuation inputs used will depend on the type of derivative and the nature of the underlying instruments and may include equity prices, commodity prices, interest rate yield curves, foreign exchange rates, volatilities, correlations, credit default swaps ("CDS") spreads and recovery rates. Additionally, the credit quality of the counterparty and of the Company as well as market funding levels may also be considered.</p> <p>In addition, specific inputs used for derivatives that are valued based on models with significant unobservable inputs are as follows:</p> <p><i>Structured credit derivatives specific inputs include:</i></p> <ul style="list-style-type: none"> • CDS spreads and recovery rates • Credit correlation between the underlying debt instruments <p><i>Equity option specific inputs include:</i></p> <ul style="list-style-type: none"> • Forward equity price • Equity volatility • Equity correlation • Equity - FX correlation • Equity - IR correlation <p><i>Interest rate and FX exotic options specific inputs include:</i></p> <ul style="list-style-type: none"> • Interest rate volatility • Interest rate spread volatility • Interest rate correlation • Foreign exchange correlation • Interest rate - FX correlation • Interest rate curve <p><i>Commodity derivatives specific inputs include:</i></p> <ul style="list-style-type: none"> • Commodity volatility • Forward commodity price 	Level 2 or 3

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Valuation methodologies (continued)

Product/instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation hierarchy
Financial instruments at fair value through profit or loss - loans	<p>Where observable market data is available, valuations are based on:</p> <ul style="list-style-type: none"> • Observed market prices (circumstances are infrequent) • Relevant broker quotes • Observed market prices for similar instruments <p>Where observable market data is unavailable or limited, valuations are based on discounted cash flows, which consider the following:</p> <ul style="list-style-type: none"> • Credit spreads derived from the cost of CDS; or benchmark credit curves developed by the Company, by industry and credit rating • Prepayment speed • Collateral characteristics 	Level 2 or 3
Loans and advances to customers and lending-related commitments	<p>Valuations are based on discounted cash flows, which consider:</p> <ul style="list-style-type: none"> • Credit spreads, derived from the cost of CDS; or benchmark credit curves developed by the Company, by industry and credit rating • Prepayment speed <p>Lending-related commitments are valued similar to loans and reflect the portion of an unused commitment expected, based on the Company's average portfolio historical experience, to become funded prior to an obligor default</p>	Level 2 or 3
Loans and advances to customers - at FVOCI	<p>Valuations are based on discounted cash flows, which consider:</p> <ul style="list-style-type: none"> • Credit spreads • Future interest payments • Repayment of principal <p>Prepayments and defaults are modelled deterministically and discounted to the reporting date</p>	Level 3
Securities financing agreements	<p>Valuations are based on discounted cash flows, which consider:</p> <ul style="list-style-type: none"> • Derivative features. For further information refer to the discussion of derivatives above • Market rates for the respective maturity • Collateral characteristics 	Level 2
Structured notes (included in deposits, short-term borrowings and long-term debt)	<ul style="list-style-type: none"> • Valuations are based on discounted cash flow analyses that consider the embedded derivatives and the terms and payment structure of the note. • The embedded derivative features are considered using models such as the Black-Scholes option pricing model, simulation models, or a combination of models that may use observable or unobservable valuation inputs, depending on the embedded derivative. The specific inputs used vary according to the nature of the embedded derivative features, as described in the discussion above regarding derivatives valuation. 	Level 2 or Level 3

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Assets and liabilities measured at fair value on a recurring basis

The following table presents the asset and liabilities reported at fair value as of 31 December 2021 and 2020, by major product category and fair value hierarchy.

	Level 1	Level 2	Level 3	Total
	\$'000	\$'000	\$'000	\$'000
At 31 December 2021				
Securities financing agreements:				
Securities purchased under agreements to resell	—	134,034,972	—	134,034,972
Securities borrowed	—	53,966,173	—	53,966,173
Financial assets at fair value through profit or loss:				
Debt and equity instruments	69,813,337	45,327,101	3,522,582	118,663,020
Derivative receivables	15,418	210,072,922	6,561,596	216,649,936
Loans	—	4,421,720	33,345	4,455,065
Financial assets held at FVOCI:				
Loans	—	—	427,659	427,659
Total financial assets	69,828,755	447,822,888	10,545,182	528,196,825
Securities financing agreements:				
Securities sold under agreements to repurchase	—	104,659,364	—	104,659,364
Securities loaned	—	9,162,653	—	9,162,653
Financial liabilities at fair value through profit or loss:				
Debt and equity instruments	25,996,931	9,426,993	5,950	35,429,874
Derivative payables	16,062	212,930,587	10,214,057	223,160,706
Financial liabilities designated at fair value through profit or loss:				
Long-term debt, short-term borrowings	60	18,391,522	13,507,108	31,898,690
Total financial liabilities	26,013,053	354,571,119	23,727,115	404,311,287

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Assets and liabilities measured at fair value on a recurring basis (continued)

	Level 1	Level 2	Level 3	Total
	\$'000	\$'000	\$'000	\$'000
At 31 December 2020				
Securities financing agreements:				
Securities purchased under agreements to resell	—	175,336,941	—	175,336,941
Securities borrowed	—	40,814,802	—	40,814,802
Financial assets at fair value through profit or loss:				
Debt and equity instruments	68,776,802	38,014,854	2,860,032	109,651,688
Derivative receivables	14,789	310,086,375	6,468,701	316,569,865
Loans	—	5,431,641	314,384	5,746,025
Financial assets held at FVOCI:				
Loans	—	—	528,685	528,685
Total financial assets	68,791,591	569,684,613	10,171,802	648,648,006
Securities financing agreements:				
Securities sold under agreements to repurchase	—	142,452,605	—	142,452,605
Securities loaned	—	11,851,953	—	11,851,953
Financial liabilities at fair value through profit or loss:				
Debt and equity instruments	22,781,189	5,671,878	24,221	28,477,288
Derivative payables	15,219	306,080,895	10,089,784	316,185,898
Financial liabilities designated at fair value through profit or loss:				
Long-term debt, short-term borrowings	—	15,966,725	12,645,240	28,611,965
Other liabilities:				
Total financial liabilities	22,796,408	482,024,056	22,759,245	527,579,709

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Assets and liabilities measured at fair value on a recurring basis (continued)

Level 3 valuations

The Company has established well structured processes for determining fair value, including for instruments where fair value is estimated using significant unobservable inputs (level 3).

Estimating fair value requires the application of judgement. The type and level of judgement required is largely dependent on the amount of observable market information available to the Company. For instruments valued using internally developed valuation models and other valuation techniques that use significant unobservable inputs and are therefore classified within level 3 of the fair value hierarchy, judgements used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate valuation model or other valuation technique to use. Second, due to the lack of observability of significant inputs, management must assess relevant empirical data in deriving valuation inputs including transaction details, yield curves, interest rates, prepayment speed, default rates, volatilities, correlations, prices (such as commodity, equity or debt prices), valuations of comparable instruments, foreign exchange rates and credit curves.

The following table presents the Company's primary level 3 financial instruments, the valuation techniques used to measure the fair value of those financial instruments, the significant unobservable inputs, the range of values for those inputs and the weighted averages of such inputs. While the determination to classify an instrument within level 3 is based on the significance of the unobservable inputs to the overall fair value measurement, level 3 financial instruments typically include observable components (that is, components that are actively quoted and can be validated to external sources) in addition to the unobservable components.

The range of values presented in the table is representative of the highest and least observable level input used to value the significant groups of instruments within a product/instrument classification. Where provided, the weighted averages of the input values presented in the table are calculated based on the fair value of the instruments that the input is being used to value.

In the Company's view, the input range, weighted and arithmetic average values do not reflect the degree of input uncertainty or an assessment of the reasonableness of the Company's estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by the Company and the relative distribution of instruments within the range of characteristics. For example, two option contracts may have similar levels of market risk exposure and valuation uncertainty, but may have significantly different implied volatility levels because the option contracts have different underlying's, tenors, or strike prices.

The input range and weighted average values will therefore vary from period-to-period and parameter-to-parameter based on the characteristics of the instruments held by the Company at each balance sheet date.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Level 3 valuations (continued)

Product/instrument	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values	Average ^(a)
31 December 2021	\$'000	\$'000	\$'000				
Debt and equity instruments and loans	3,983,586	(5,950)	3,977,636				
Corporate debt securities and other				Market comparables	Price	\$13 - \$105	\$82
Residential mortgage-backed securities and loans				Discounted cash flows	Yield Loss severity	1% - 6% 0% - 0%	6% 0%
Commercial mortgage-backed securities and loans				Market comparables	Price	\$0 - \$94	\$76
Loans at FVOCI				Discounted cash flows	Credit spreads Utilisation given default CDS recovery rate Loan recovery rate	5bps - 3,078bps 32% - 100% 25% - 40% 40% - 54%	347bps 81% 40% 54%
Loans at fair value				Market comparables	Price	\$5 - \$100	\$54
Non-US government debt securities				Market comparables	Price	\$87-\$103	\$95
Derivatives	6,561,596	(10,214,057)	(3,652,461)				
Interest rate derivatives				Option pricing	Interest rate volatility Interest rate correlation IR - FX correlation	32bps-507bps (10)%-80% (35)% - 37%	165bps 26% (2)%
				Discounted cash flows	Prepayment Speed	0%-20%	3%
Credit derivatives				Discounted cash flows	Credit spread Recovery rate Credit Correlation	90bps-250bps 20%-40% 48% - 51%	134bps 31% 50%
Foreign exchange derivatives				Option pricing	IR - FX correlation	(40)% - 65%	23%
				Discounted cash flows	Interest rate curve	0% - 28%	3%
Equity derivatives				Option pricing	Equity volatility Equity correlation Equity - FX correlation Equity - IR correlation Equity forward	4% - 106% 17% - 100% (79)% - 59% 15% - 50% 81% - 111%	28% 56% (26)% 32% 99%
Commodity derivatives				Option pricing	Industrial Metal Commodity Forward	\$2610 - \$2808 per MT	\$2709 per MT
					Commodity volatility Commodity correlation	5% - 185% (50)% - 45%	95% (3)%
Long-term debt, short-term borrowings	—	(13,507,108)	(13,507,108)	Option pricing	Interest rate volatility Interest rate correlation IR-FX correlation Equity volatility Equity correlation Equity-FX correlation Equity-IR correlation Equity Forward	32bps - 507bps (10)% - 80% (35)% - 37% 4%-106% 17%-100% (79)%-59% 15%-50% 81%-111%	165bps 26% (2)% 28% 56% (26)% 32% 99%
				Discounted cash flows	Credit spread Recovery rate	90 bps- 250bps 20%-40%	134bps 31%
Total	10,545,182	(23,727,115)	(13,181,933)				

The categories presented in the table have been aggregated based upon the product type, which may differ from their classification on the balance sheet and fair values are shown net.

Given significant economic hedging between derivatives and other financial liabilities, the inputs considered are consistent across both.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Level 3 valuations (continued)

Product/instrument	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values	Average ^(a)
At 31 December 2020	\$'000	\$'000	\$'000				
Debt and equity instruments	3,703,101	(24,221)	3,678,880				
Corporate debt securities and other				Market comparables	Price	\$4 - \$116	\$78
Residential mortgage-backed securities and loans				Discounted cash flows	Yield Prepayment speed Conditional default rate Loss severity	2% - 6% 9% - 22% 0% - 0% 0% - 0%	5% 14% 0% 0%
Commercial mortgage-backed securities and loans				Market comparables	Price	\$3- \$70	\$63
Loans at FVOCI				Discounted cash flows	Credit spreads Utilisation given default CDS recovery rate Loan recovery rate	5bps - 1,443bps 37% - 100% 20% - 40% 39% - 54%	243bps 73% 32% 49%
Loans at fair value				Market comparables	Price	\$10 - \$100	\$70
Derivatives	6,468,701	(10,089,784)	(3,621,083)				
Interest rate derivatives				Option pricing	Interest rate volatility Interest rate correlation IR - FX correlation	54bps-477bps (10)%-70% (35)% - 37%	150bps 19% (2)%
				Discounted cash flows	Prepayment Speed	0%-25%	4%
Credit derivatives				Discounted cash flows	Credit spread Recovery rate ^(b)	74bps-356bps 0%-40%	226bps 28%
Foreign exchange derivatives				Option pricing	IR - FX correlation	(40)% - 65%	28%
Equity derivatives				Option pricing	Equity volatility Equity correlation Equity - FX correlation Equity - IR correlation Equity forward	4% - 119% 17% - 100% (80)% - 59% 20% - 50% 61% - 112%	27% 56% (24)% 28% 99%
Commodity derivatives				Option pricing	Industrial Metal Commodity Forward Commodity volatility Commodity correlation	\$1988 - \$2142 per MT 1% - 46% (40)% - 95%	\$2065 per MT 24% 28%
Long-term debt, short-term borrowings	—	(12,645,240)	(12,645,240)	Option pricing	Interest rate volatility Interest rate correlation IR-FX correlation Equity volatility Equity correlation Equity-FX correlation Equity-IR correlation Equity Forward	54bps - 477bps (10)% - 70% (35)% - 37% 4%-119% 17%-100% (80)%-59% 20%-50% 61%-112%	150bps 19% (2)% 27% 56% (24)% 28% 99%
				Discounted cash flows	Credit spread Recovery rate ^(b)	74 bps- 356bps 0%-40%	226bps 28%
Total	10,171,802	(22,759,245)	(12,587,443)				

(a) Amounts represent weighted average except for derivative related inputs where arithmetic averages are used.

(b) The range is determined based on one position

The categories presented in the table have been aggregated based upon the product type, which may differ from their classification on the balance sheet and fair values are shown net.

Given significant economic hedging between derivatives and other financial liabilities, the inputs considered are consistent across both.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Changes in and ranges of unobservable inputs

The following discussion provides a description of the impact on a fair value measurement of a change in each unobservable input in isolation, and the interrelationship between unobservable inputs, where relevant and significant. The impact of changes in inputs may not be independent as a change in one unobservable input may give rise to a change in another unobservable input. Where relationships do exist between two unobservable inputs, those relationships are discussed below. Relationships may also exist between observable and unobservable inputs (for example, as observable interest rates rise, unobservable prepayment rates decline); such relationships have not been included in the discussion below. In addition, for each of the individual relationships described below, the inverse relationship would also generally apply.

Yield - The yield of an asset is the interest rate used to discount future cash flows in a discounted cash flow calculation. An increase in the yield, in isolation, would result in a decrease in a fair value measurement.

Credit spread - The credit spread is the amount of additional annualised return over the market interest rate that a market participant would demand for taking exposure to the credit risk of an instrument. The credit spread for an instrument forms part of the discount rate used in a discounted cash flow calculation. Generally, an increase in the credit spread would result in a decrease in a fair value measurement.

Prepayment speed - The prepayment speed is a measure of the voluntary unscheduled principal repayments of a prepayable obligation in a collateralised pool. Prepayment speeds generally decline as borrower delinquencies rise. An increase in prepayment speeds, in isolation, would result in a decrease in a fair value measurement of assets valued at a premium to par and an increase in a fair value measurement of assets valued at a discount to par.

Conditional default rate - The conditional default rate is a measure of the reduction in the outstanding collateral balance underlying a collateralised obligation as a result of defaults. An increase in conditional default rates would generally be accompanied by an increase in loss severity and an increase in credit spreads. An increase in the conditional default rate, in isolation, would result in a decrease in a fair value measurement.

Loss severity - The loss severity (the inverse concept is the recovery rate) is the expected amount of future realised losses resulting from the ultimate liquidation of a particular loan, expressed as the net amount of loss relative to the outstanding loan balance. An increase in loss severity is generally accompanied by an increase in conditional default rates. An increase in the loss severity, in isolation, would result in a decrease in a fair value measurement.

Utilisation given default ("UGD") - A number between 0% and 100% that is the estimated fraction of the current undrawn balance on a revolving credit facility that will be drawn at the time of the default of the borrower. A higher UGD generally results in a decrease in the fair value of the loan.

Correlation - Correlation is a measure of the relationship between the movements of two variables. Correlation is a pricing input for a derivative product where the payoff is driven by one or more underlying risks.

Correlation inputs are related to the type of derivative (e.g., interest rate, credit, equity, foreign exchange and commodity) due to the nature of the underlying risks. When parameters are positively correlated, an increase in one parameter will result in an increase in the other parameter. When parameters are negatively correlated, an increase in one parameter will result in a decrease in the other parameter. An increase in correlation can result in an increase or a decrease in a fair value measurement. Given a short correlation position, an increase in correlation, in isolation, would generally result in a decrease in a fair value measurement.

Volatility - Volatility is a measure of the variability in possible returns for an instrument, parameter or market index given how much the particular instrument, parameter or index changes in value over time. Volatility is a pricing input for options, including equity options, commodity options, and interest rate options. Generally, the higher the volatility of the underlying, the riskier the instrument. Given a long position in an option, an increase in volatility, in isolation, would generally result in an increase in a fair value measurement.

Interest rate curve - Represents the relationship of interest rates over differing tenors. The interest rate curve is used to set interest rate and foreign exchange derivative cash flows and is also a pricing input used in the discounting of any derivative cash flow.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Fair value financial instruments valued using techniques that incorporate significant unobservable inputs

The potential impact as at 31 December of using reasonable possible alternative assumptions for the valuations including significant unobservable inputs have been quantified in the following table:

Sensitivity analysis of valuations using unobservable inputs	Fair Value			Favourable change	Unfavourable change
	Asset	Liability	Net	Statement of comprehensive income	
At 31 December 2021	\$'000	\$'000	\$'000	\$'000	\$'000
Corporate debt securities and other	3,516,379	(5,950)	3,510,429	85,397	(85,397)
Residential mortgage-backed securities	5,491	—	5,491	150	(150)
Commercial mortgage-backed securities	712	—	712	39	(39)
Loans	33,345	—	33,345	543	(543)
Total debt and equity instruments and loans	3,555,927	(5,950)	3,549,977	86,129	(86,129)
<i>Derivatives*</i>	6,561,596	(10,214,057)	(3,652,461)	61,487	(61,487)
<i>Long-term debt, short-term borrowings*</i>	—	(13,507,108)	(13,507,108)	227,385	(227,385)
<i>Loans at FVOCI</i>	427,659	—	427,659	636	(636)
Total	10,545,182	(23,727,115)	(13,181,933)	375,637	(375,637)

Sensitivity analysis of valuations using unobservable inputs	Fair Value			Favourable change	Unfavourable change
	Asset	Liability	Net	Statement of comprehensive income	
At 31 December 2020	\$'000	\$'000	\$'000	\$'000	\$'000
Debt and equity instruments					
Corporate debt securities and other	2,851,252	(24,221)	2,827,031	110,312	(110,312)
Residential mortgage-backed securities	7,725	—	7,725	172	(172)
Commercial mortgage-backed securities	1,055	—	1,055	64	(64)
Loans	314,384	—	314,384	5,268	(5,268)
Total debt and equity instruments	3,174,416	(24,221)	3,150,195	115,816	(115,816)
<i>Derivatives*</i>	6,468,701	(10,089,784)	(3,621,083)	81,146	(81,146)
<i>Long-term debt, short-term borrowings*</i>	—	(12,645,240)	(12,645,240)	283,370	(283,370)
<i>Loans at FVOCI</i>	528,685	—	528,685	872	(872)
Total	10,171,802	(22,759,245)	(12,587,443)	481,204	(481,204)

- Given significant economic hedging between derivatives and long-term debt, short-term borrowings the net risk is considered to calculate the favourable/unfavourable changes with the result then allocated to the two lines individually.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Changes in level 3 recurring fair value measurements

The following tables include a rollforward of the balance sheets amounts (including changes in fair value) for financial instruments classified by the Company within level 3 of the fair value hierarchy.

Movement in assets and liabilities in Level 3 during year ended 31 December 2021

Financial assets

	Loans at FVOCI	Debt and equity instruments and loans	Derivative receivables	Total financial assets
	\$'000	\$'000	\$'000	\$'000
At 31 December 2020	528,685	3,174,416	6,468,701	10,171,802
At 1 January 2021	528,685	3,174,416	6,468,701	10,171,802
Total gains/(losses) recognised in profit or loss	(24,926)	217,774	2,161,103	2,353,951
Total gains recognised in other comprehensive income	13,844	—	—	13,844
Purchases	—	4,922,985	2,210,194	7,133,179
Sales	(117,074)	(1,124,437)	(128,963)	(1,370,474)
Issuances	27,130	(30,300)	—	(3,170)
Settlements	—	(3,303,990)	(4,153,942)	(7,457,932)
Transfers in to Level 3	—	374,532	1,333,469	1,708,001
Transfers out of Level 3	—	(675,053)	(1,328,966)	(2,004,019)
At 31 December 2021	427,659	3,555,927	6,561,596	10,545,182
Change in unrealised gains related to financial instruments held at 31 December 2021	—	93,217	1,399,384	1,492,601

Financial liabilities

	Debt and equity instruments	Derivative payables	Financial liabilities designated at FVTPL	Total financial liabilities
	\$'000	\$'000	\$'000	\$'000
At 31 December 2020	24,221	10,089,784	12,645,240	22,759,245
At 1 January 2021	24,221	10,089,784	12,645,240	22,759,245
Total (gains)/loss recognised in profit or loss	(7,715)	4,270,919	(826,796)	3,436,408
Purchases	(68,595)	(107,155)	—	(175,750)
Sales	7,376	3,352,202	244	3,359,822
Issuances	—	—	14,081,797	14,081,797
Settlements	(1)	(6,492,186)	(12,170,408)	(18,662,595)
Transfers in to Level 3	62,056	939,476	153,001	1,154,533
Transfers out of Level 3	(11,392)	(1,838,983)	(375,970)	(2,226,345)
At 31 December 2021	5,950	10,214,057	13,507,108	23,727,115
Change in unrealised losses related to financial instruments held at 31 December 2021	(191,011)	2,489,863	447,693	2,746,545

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Movement in assets and liabilities in Level 3 during year ended 31 December 2020

Financial assets	Loans at FVOCI	Debt and equity instruments and loans	Derivative receivables	Total financial assets
	\$'000	\$'000	\$'000	\$'000
31 December 2019	834,508	2,006,508	4,560,784	7,401,800
1 January 2020	834,508	2,006,508	4,560,784	7,401,800
Total gains/(losses) recognised in profit or loss	(37,027)	87,067	3,543,817	3,593,857
Total gains recognised in other comprehensive income	17,956	—	—	17,956
Purchases	—	2,443,028	3,373,957	5,816,985
Sales	(440,753)	(1,438,252)	(100,344)	(1,979,349)
Issuances	154,001	2,999	—	157,000
Settlements	—	(642,152)	(5,589,822)	(6,231,974)
Transfers in to Level 3	—	1,710,050	2,989,511	4,699,561
Transfers out of Level 3	—	(994,832)	(2,309,202)	(3,304,034)
31 December 2020	528,685	3,174,416	6,468,701	10,171,802
Change in unrealised gains related to financial instruments held at 31 December 2020	—	199,228	2,567,201	2,766,429

Financial liabilities	Debt and equity instruments	Derivative payables	Financial liabilities designated at FVTPL	Total financial liabilities
	\$'000	\$'000	\$'000	\$'000
31 December 2019	10,043	8,665,527	10,023,974	18,699,544
1 January 2020	10,043	8,665,527	10,023,974	18,699,544
Total losses / (gains) recognised in profit or loss	4,225	5,410,067	(715,923)	4,698,369
Purchases	(77,807)	(96,150)	(529)	(174,486)
Sales	117,604	3,991,531	—	4,109,135
Issuances	—	4,429	9,710,400	9,714,829
Settlements	(4,186)	(8,765,277)	(6,584,403)	(15,353,866)
Transfers in to Level 3	(314)	3,384,067	1,227,471	4,611,224
Transfers out of Level 3	(25,344)	(2,504,410)	(1,015,750)	(3,545,504)
31 December 2020	24,221	10,089,784	12,645,240	22,759,245
Change in unrealised losses related to financial instruments held at 31 December 2020	135,316	3,023,243	744,226	3,902,785

Realised and unrealised gains/(losses) are reported in trading profits in the income statement.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

33. Assets and liabilities measured at fair value (continued)

Transfers between levels for instruments carried at fair value on a recurring basis

For the years ended 31 December 2021 and 2020, there were no significant transfers between levels 1 and 2.

During the year ended 31 December 2021, transfers in to and out of level 3 included the following:

- \$0.3 billion of assets and \$0.3 billion of liabilities transferred out of level 3 driven by an increase in observability of swaps and commodities;
- \$1.4 billion of assets and \$1.8 billion of liabilities transferred out of level 3 driven by an increase in observability of equity options;
- \$0.3 billion of assets and \$0.1 billion of liabilities transferred in to level 3 driven by a decrease in observability of inputs on swaps and commodities;
- \$1.3 billion of assets and \$0.9 billion of liabilities transferred in to level 3 driven by a decrease in observability of equity options; and

All transfers are assumed to occur at the beginning of the period in which they occur.

During the year ended 31 December 2020, transfers in to and out of level 3 included the following:

- \$1.2 billion of assets and \$1.4 billion of liabilities transferred out of level 3 driven by an increase in observability of swaps and commodities;
- \$1.1 billion of assets and \$1.1 billion of liabilities transferred out of level 3 driven by an increase in observability of equity options;
- \$1.0 billion of assets and \$1.0 billion of liabilities transferred out of level 3 driven by an increase in observability of debt and equity instruments and loans;
- \$1.8 billion of assets and \$1.9 billion of liabilities transferred in to level 3 driven by a decrease in observability of inputs on swaps and commodities;
- \$1.2 billion of assets and \$1.5 billion of liabilities transferred in to level 3 driven by a decrease in observability of equity options; and
- \$1.7 billion of assets and \$1.2 billion of liabilities transferred in to level 3 driven by a decrease in observability of debt and equity instruments and loans.

All transfers are assumed to occur at the beginning of the period in which they occur.

Recognition of day one profit and loss

If there are significant unobservable inputs used in a valuation technique, the financial instrument is recognized at the transaction price and any day one profit and loss is deferred. Refer to Note 5 on the Company's accounting policy for the recognition of day one profit and loss.

The table below presents the amounts not recognised in the income statement relating to the aggregate difference between the fair value of financial assets and liabilities at initial recognition using the valuation techniques and the transaction price. The difference between the transaction price and model price on assets amounted to \$136.5million (2020: \$240.2 million), and for liabilities amounted to \$(85)million (2020: \$20.1 million).

	2021	2020
	\$'000	\$'000
At 1 January	220,065	188,148
New transactions	47,444	358,288
Amounts recognised in the consolidated income statement during the year	(46,263)	(326,371)
At 31 December	221,246	220,065

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

Fair value of financial instruments not carried on balance sheet at fair value

Certain financial instruments that are not carried at fair value on balance sheet are carried at amounts that approximate fair value, due to their short-term nature and generally negligible credit risk. These instruments include certain securities purchased under agreements to resell, cash and balances at central banks, debtors, other assets, trade creditors and other liabilities.

The Company has \$186.6 billion (2020: \$187.3 billion) of current financial assets and \$264.9 billion (2020: \$261.8 billion) of current financial liabilities that are not measured at fair value, including loans and advances to customers of \$0.4 billion (2020: \$0.5 billion).

In estimating the fair value of these loans and advances to customers, typically a discounted cash flow model is applied with significant unobservable inputs and therefore would be classified as level 3 instruments. The fair value of these loans is not materially different from the carrying amount. All other instruments are of a short-term nature and the carrying amounts in the balance sheet approximate fair value.

COVID-19 Pandemic

While models are inherently imprecise, the degree of imprecision or uncertainty can be heightened by the market or economic environment. This is particularly true when the current and forecasting environment is significantly different from the historical macroeconomic environments upon which the models were calibrated, as the Company has experienced during the COVID-19 pandemic. This uncertainty may necessitate a greater degree of judgement and analytics to inform adjustments to model outputs than in typical periods.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

34. Offsetting financial assets and financial liabilities

The table below presents the balance sheet assets and liabilities offset, where the offsetting criteria under IAS 32 'Financial Instruments: Presentation' ("IAS 32") have been met, and the related amounts not offset in the balance sheet in respect of cash and security collateral received and master netting agreements, where such criteria have not been met:

	Effects of offsetting on balance sheet		Related amounts not offset			
	Gross amounts	Amounts offset	Net amounts reported on balance sheet	Master netting agreements and other	Cash & security collateral	Net amount
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
At 31 December 2021						
Financial assets:						
Securities purchased under agreements to resell ^(a)	328,624,643	(143,609,333)	185,015,310	(52,851,641)	(128,062,732)	4,100,937
Securities borrowed ^(a)	53,966,173	—	53,966,173	(6,796,170)	(39,241,021)	7,928,982
Financial assets at fair value through profit or loss ^(b)	385,065,377	(45,297,356)	339,768,021	(188,796,971)	(13,700,048)	137,271,002
Total	767,656,193	(188,906,689)	578,749,504	(248,444,782)	(181,003,801)	149,300,921
Financial liabilities:						
Securities sold under agreements to repurchase ^(a)	248,268,697	(143,609,333)	104,659,364	(52,851,641)	(50,096,460)	1,711,263
Securities loaned ^(a)	9,162,653	—	9,162,653	(6,796,170)	(2,342,389)	24,094
Financial liabilities at fair value through profit or loss ^(b)	299,533,684	(40,943,104)	258,590,580	(197,742,278)	(20,314,591)	40,533,711
Financial liabilities designated at fair value through profit or loss	31,898,690	—	31,898,690	—	—	31,898,690
Total	588,863,724	(184,552,437)	404,311,287	(257,390,089)	(72,753,440)	74,167,758

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

34. Offsetting financial assets and financial liabilities (continued)

	Effects of offsetting on balance sheet			Related amounts not offset		
	Gross amounts (restated) (c)	Amounts offset	Net amounts reported on balance sheet (restated) (c)	Master netting agreements and other	Cash & security collateral	Net amount (restated) (c)
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
At 31 December 2020						
Financial assets:						
Securities purchased under agreements to resell (a)	362,104,889	(138,068,294)	224,036,595	(58,748,596)	(159,530,740)	5,757,259
Securities borrowed (a)	40,814,802	—	40,814,802	(9,186,868)	(26,310,588)	5,317,346
Financial assets at fair value through profit or loss (b)	473,201,147	(41,233,569)	431,967,578	(286,397,690)	(20,275,703)	125,294,185
Total	876,120,838	(179,301,863)	696,818,975	(354,333,154)	(206,117,031)	136,368,790
Financial liabilities:						
Securities sold under agreements to repurchase (a)	280,520,899	(138,068,294)	142,452,605	(58,748,596)	(80,636,578)	3,067,431
Securities loaned (a)	11,851,953	—	11,851,953	(9,186,868)	(2,620,744)	44,341
Financial liabilities at fair value through profit or loss (b)	385,393,428	(40,730,242)	344,663,186	(260,801,607)	(37,014,960)	46,846,619
Financial liabilities designated at fair value through profit or loss (c)	28,611,964	—	28,611,964	—	—	28,611,964
Total	706,378,244	(178,798,536)	527,579,708	(328,737,071)	(120,272,282)	78,570,355

- (a) The fair value of securities purchased under agreements to resell and securities borrowed accepted as collateral that the Company is permitted to sell or re-pledge in the absence of default, prior to netting adjustments, is \$341.1 billion (2020: \$366.4 billion). The fair value of such collateral sold or repledged is \$234.2 billion (2020: \$271.0 billion). Please see note 38, "Pledged Assets and Collateral Received" for an entity wide view of pledged assets and collateral sold/ received.
- (b) Included within 'amounts offset' are the respective collateral payable and receivables with certain clearing counterparties. Proportion of netting applied to the derivative asset or derivative liability may be different depending on the eligibility of balances for netting under IAS 32. OTC client cleared collateral (included in Debtors and Other Liabilities) offset against derivative assets is \$4.3 billion, and derivative liabilities is \$nil. Other OTC collateral (included in Debtors and Other Liabilities) offset against derivative assets is \$265 million (2020: \$503 million) and derivative liabilities is \$nil (2020: \$nil).
- (c) Financial liabilities designated at fair value through profit and loss' was erroneously omitted from the 2020 'Offsetting financial assets and financial liabilities' table.

The columns 'Master netting agreements and other' discloses the amounts that are subject to master netting agreements but were not offset because they did not meet the net settlement/simultaneous settlement criteria; or because the rights of set off are conditional upon the default of the counterparty only.

The columns 'Cash & security collateral' disclose the cash and financial instrument collateral amounts received or pledged in relation to the total amount of assets and liabilities that were not offset. The rights of set off relating to the cash and financial instrument collateral are conditional upon the default of the counterparty. For a description of the rights of set off for positions subject to master netting agreements, refer to the Credit risk section on page 24.

35. Pensions

During the year, the Company was a participating employer in the following pension schemes in the UK:

- JPMorgan UK Pension Plan ("UKP") - a defined contribution scheme (as a participating employer); and
- JPMorgan Cazenove (1987) Pension Scheme ("UKS") - a defined benefit scheme (as a participating employer).

In addition to the above, whilst not being a participating employer, the Company has certain obligations for the following pension scheme in the UK:

- JPMC UK Retirement Plan - a defined benefit scheme

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

35. Pensions (continued)

In Europe, the Company also operates pension plans for its employees and ex-employees in the overseas branches in Switzerland and Germany. Pension plans in locations including France, Italy and Spain transferred to JPMAG, following planned legal entity changes. Based on full actuarial valuations carried out during the year, the net asset in respect of these European schemes as at 31 December 2021 amounted to \$11,341,000, (2020 asset: \$4,742,000). The charge for the year through the income statement was \$978,000 (2020: \$1,487,000), and total gain recognised through statement of comprehensive income was \$6,887,000 (2020: gain of \$8,394,000).

JPMorgan UK Pension Plan

The Company participates in the JPMorgan UK Pension Plan, a defined contribution scheme operated by the Firm, which is open to current and future contributions

JPMorgan Cazenove (1987) Pension Scheme

The JPMorgan Cazenove (1987) Pension Scheme ("UKS") is a defined benefit plan. The Company has been the principal employer to the UKS plan since August 2012. In May 2016, the Company agreed to and became responsible for 97.24% of the liabilities in respect of the UKS, taking over the obligation from its indirect subsidiary, JPMorgan Cazenove Service Company. Furthermore, in May 2019 the Company became responsible for the remaining 2.76% of the liabilities of the UKS, taking over the obligation from a related JPMC undertaking. This plan then ceased to be regarded as a multi-employer scheme. As the Company is the principal employer, 100% of the assets and liabilities are recognised on balance sheet and disclosed below.

On 31 May 2016, the UKS was closed to future benefits at which point the members, who had been contributing members prior to cessation of accrual, joined the UKP. Depending on when members left the UKS, benefits are revalued in the period up to their retirement in line with either the retail price index or consumer price index, subject to certain caps and collars. In addition pensions in payment are increased, depending on when the benefit was accrued, at either fixed annual rates or rates linked to changes in the retail price index, with different caps.

The UKS liability is sensitive to changes to factors such as; bond yields, life expectancy and inflation risk. The UKS's investment strategy seeks to balance achieving a level of return while reducing asset volatility and matching expected movements in the liability. Through the UKS activities of balancing growth assets versus matching assets to liability movements, the UKS exposes the Company to investment risk.

Responsibility for the governance of the UKS - including investment decisions is borne by the Trustee.

The 5 April 2018 triennial actuarial valuation revealed a funding deficit in the Scheme of \$52.3 million. A Recovery Plan (dated 29 May 2019), was agreed between the Company and the Trustee to eliminate the funding shortfall over a 7 year period, which is by 5 April 2025. It was agreed annual contributions of \$7.5 million would be paid by the Company by 5 April each year, until 5 April 2025. The actuarial valuation as at 5 April 2021 is in the process of being finalized.

The principal assumptions adopted for the valuation of the UKS at 31 December were as follows:

	2021	2020
	% per annum	% per annum
Discount rate	1.9	1.3
Rate of salary increase ^(a)	N/A	N/A
Rate of price inflation	3.5	3.0
Rate of pension increases	3.0	2.9

(a) The salary increase assumption no longer applies for the UKS as this plan was closed to future accruals on 31 May 2016.

Assumed life expectancy on retirement at age 65 were as follows:

	2021	2020
	years	years
Longevity at age 65 for current pensioners		
- Male	23.6	23.3
- Female	25.2	25.4
Longevity at age 65 for future pensioners		
- Male	25.6	25.4
- Female	27.3	27.6

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

35. Pensions (continued)

JPMorgan Cazenove (1987) Pension Scheme (continued)

The movements in the UKS' liability for the year ended 31 December was as follows:

	2021	2020
	\$'000	\$'000
Benefit obligation at beginning of the year	668,558	575,482
Interest costs	8,639	10,417
Actuarial (gain)/loss	(412)	78,435
Benefits paid from plan/Company	(16,345)	(18,956)
Exchange rate changes	(6,061)	23,180
Benefit obligation at end of the year	654,379	668,558

Guaranteed minimum pension ("GMP") is a portion of pension that was accrued by individuals who were contracted out of the State Second Pension prior to 6 April 1997. A High Court case concluded on 26 October 2018 that GMPs need to be equalised. This has been recognised in the prior service cost.

The movements in the UKS' assets for the year ended 31 December was as follows:

	2021	2020
	\$'000	\$'000
Fair value of plan assets at beginning of year	577,594	501,323
Interest income on plan assets	7,525	9,155
Actuarial gain on plan assets	49,736	58,858
Employer contributions (including employer direct benefit payments)	7,841	7,315
Administrative expenses paid from plan assets	—	—
Benefits paid from plan/Company	(16,345)	(18,956)
Exchange rate changes	(6,093)	19,899
Fair value of plan assets at end of the year	620,258	577,594

The fair value of fixed interest, index linked gilts and cash is determined using quoted prices. The fair value of investment funds is determined using un-quoted prices.

The sensitivity of the defined benefit obligation to changes in the weighted principal assumption is as follows:

	2021			2020		
	Change in assumption	Increase in liability	Decrease in liability	Change in assumption	Increase in liability	Decrease in liability
At 31 December	%	% per annum	% per annum	%	% per annum	% per annum
Discount rate	0.25 %	(5.09)%	5.40 %	0.25 %	(5.38)%	5.61 %
Rate of salary increase ^(a)	0.25 %	N/A	N/A	0.25 %	N/A	N/A
Rate of pension increase	0.25 %	2.50 %	(2.47)%	0.25 %	2.12 %	(2.16)%
Rate of price inflation	0.25 %	2.94 %	(2.86)%	0.25 %	3.30 %	(3.15)%
Post-retirement mortality assumption	Increase by one year	3.64 %		Increase by one year	4.59 %	

(a) The salary increase assumption no longer applies for the UKS as this plan was closed to future accruals on 31 May 2016.

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

35. Pensions (continued)

JPMorgan Cazenove (1987) Pension Scheme (continued)

Amounts recognised in the balance sheet arising from schemes that are wholly unfunded and those wholly or partly funded as at 31 December were as follows:

	2021	2020
	\$'000	\$'000
Present value of wholly or partly funded obligations	654,379	668,558
Fair value of plan assets	620,258	577,594
Deficit for funded plans - net liability	34,121	90,964
Effects of changes in demographic assumptions	24,976	—
Effects of changes in financial assumptions	(32,626)	81,882
Experience adjustments on plan assets	(49,736)	(58,858)
Experience adjustments on plan liabilities	7,238	(3,447)
Total remeasurements included in OCI	(50,148)	19,577

Movements in the UKS income statement for the year ended 31 December are as follows:

	2021	2020
	\$'000	\$'000
Interest cost	8,639	10,417
Expected return on plan assets	(7,525)	(9,155)
Administrative expenses paid from plan assets	—	—
Total pension cost recognised in the income statement	1,114	1,262
Exchange rate changes	31	3,282
Net amount recognised in the income statement	1,145	4,544

Movements in the UKS statement of other comprehensive income for the year ended 31 December are as follows:

	2021	2020
	\$'000	\$'000
Actuarial gain immediately recognised	50,148	(19,577)

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

35. Pensions (continued)

JPMorgan Cazenove (1987) Pension Scheme (continued)

The asset allocation of the UKS defined benefit schemes was as follows:

	2021	2020
	Percentage of plan assets	Percentage of plan assets
	(%)	(%)
Equity securities	52.4	39.8
Bond securities	37.0	43.6
Investment funds	9.2	15.0
Cash	1.2	1.6
Other	0.2	—
	100	100

JPMC UK Retirement Plan

The Firm maintains the JPMC UK Retirement Plan, a defined benefit plan that is closed to additional benefit accruals. Whilst the Company is not a participating employer in this plan, it does have certain obligations calculated in accordance with paragraph 5 (2) of Schedule 1A to the Occupational Pension Schemes (Employer Debt) Regulations 2005 (as amended), as follows:

- Under a Withdrawal Agreement, dated 24 May 2011, that was entered into in relation to J.P. Morgan Services LLP ("LLP"), a JPMorgan Chase undertaking which had previously been a participating employer in the plan. Under the terms of this agreement, the Company became responsible for LLP's portion of the pension obligations.
- Under a Withdrawal Agreement, dated 21 December 2018, that was entered into in relation to J.P. Morgan Europe Limited ("EL"), a JPMorgan Chase undertaking which had previously been a participating employer of the plan. Under the terms of this agreement, the Company became responsible for EL's portion of the pension obligations.

The Company was not required to make any payments immediately or in relation to the ongoing funding of the plan under either of these Withdrawal Agreements.

However, payments may become due from the Company on the occurrence of the earliest of the following events:

- The commencement of the winding up of the plan;
- The insolvency of the plan's last remaining participating employer;
- The insolvency of the Company; or
- Any other date agreed between the Company and the Trustee of the Plan.

36. Share based payments

The Firm has granted long-term stock-based awards to certain key employees under its Long Term Incentive Plan ("LTIP"), as amended and restated effective 19 May 2015 and further amended and restated effective 15 May 2018. Under the terms of the LTIP, as of 31 December 2021, 82.7 million shares of common stock were available for issuance through May 2025 (2020: 67 million shares). The LTIP is the only active plan under which the Firm is currently granting stock-based incentive awards. In the following discussion, the LTIP, plus prior Firm plans and plans assumed as the result of acquisitions, are referred to collectively as the "LTI Plans" and such plans constitute the Firm's stock-based incentive plans.

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

36. Share based payments (continued)

The Firm separately recognises compensation expense for each tranche of each award as if it were a separate award with its own vesting date. For each tranche granted, compensation expense is recognised in line with how awards vest from the grant date until the vesting date of the respective tranche, provided that the employees will not become full-career eligible during the vesting period. For awards with full-career eligibility provisions and awards granted with no future substantive service requirement, the Firm accrues the estimated value of awards expected to be awarded to employees as of the grant date without giving consideration to the impact of post-employment restrictions. For each tranche granted to employees of the Company who will become full-career eligible during the vesting period, compensation expense is recognised in line with how awards vest from the grant date until the earlier of the employee's full-career eligibility date or the vesting date of the respective tranche.

Restricted stock units

Restricted stock units ("RSUs") are awarded at no cost to the recipient upon their grant. RSUs are generally granted annually and generally vest at a rate of 50% after two years, 50% after three years, and convert into shares of common stock at the vesting date. In addition, RSUs typically include full-career eligibility provisions, which allow employees to continue to vest upon voluntary termination, subject to post-employment and other restrictions based on age or service-related requirements. All of these awards are subject to forfeiture until vested and contain clawback provisions that may result in cancellation prior to vesting under certain specified circumstances. RSUs entitle the recipient to receive cash payments equivalent to any dividends paid on the underlying common stock during the period the RSUs are outstanding.

Compensation expense for RSUs is measured based upon the number of shares granted multiplied by the stock price at the grant date, and for employee stock options and stock appreciation rights ("SARs") is measured at the grant date using the Black-Scholes valuation model. Compensation expense for these awards is recognised as described above.

Key employee stock options and SARs

Under the LTI Plans, stock options and SARs have generally been granted with an exercise price equal to the fair value of JPMorgan Chase common stock on the grant date. The Firm typically awards SARs to certain key employees once per year; the Firm also periodically grants employee stock options and SARs to individual employees. The 2013 grants of SARs to key employees vest rateably over five years (i.e. 20% per year) and awards contain clawback provisions similar to RSUs. The 2013 grants of SARs contain full-career eligibility provisions. SARs generally expire 10 years after the grant date.

The following table summarises additional information about options and SARs outstanding as at 31 December:

	31 December 2021			31 December 2020		
	Outstanding '000	Weighted average exercise price \$	Weighted average remaining contractual life (in years)	Outstanding '000	Weighted average exercise price \$	Weighted average remaining contractual life (in years)
Range of exercise prices						
\$min - \$20.00	—	—	—	—	—	—
\$20.01 - \$35.00	—	—	—	—	—	—
\$35.01 - \$50.00	91.28	42.52	0.68	116.28	42.90	1.33
\$50.01 and above	—	—	—	—	—	—
Total	91.28	42.52	0.68	116.28	42.90	1.33

The weighted average share price during the year ended 31 December 2021 was \$159.31 (2020: \$106.52).

The total expense for the year relating to share based payments was \$355 million (2020: \$354 million), all of which relates to equity settled share based payments.

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Notes to the financial statements (continued)

37. Transfers of financial assets

In the course of its normal business activities, the Company transfers financial assets but retains some form of continuing involvement. Depending on the nature of the transaction, this may result in derecognition of the assets in their entirety, partial derecognition or no derecognition of the assets subject to the transfer.

Transfers of financial assets that do not result in derecognition

Assets are transferred under repurchase and securities lending agreements with other banks and financial institutions. In substance, these transactions constitute secured borrowings and therefore the assets are not derecognised from the balance sheet. The recipient is generally able to use, sell or pledge the transferred assets for the duration of the transaction. The Company remains exposed to interest and credit risk on these instruments which they are contractually required to repurchase at a later date. The fair value of the collateral and the carrying amounts of the liabilities is disclosed in note 34, and for other similar secured borrowings within this note.

The Company transferred bonds to a third party, and subsequently entered into a forward sale agreement to repurchase the bond at an agreed price and future date. The Company was contractually required to repurchase the assets, therefore the derecognition criteria were not met as the Company retained the risks and rewards associated with the financial assets. The assets continued to be recognised on balance sheet together with the related liability.

The Company has also transferred both bonds and equity securities to third parties in consideration for cash, while simultaneously entering into derivative transactions, with the same counterparty, which are linked to the transferred assets. In some cases, the derecognition criteria have not been met because the Company retains significantly all of the risk and rewards associated with the transferred financial assets. Consequently, the assets continue to be recognised on balance sheet together with the related liability.

The counterparty's recourse is generally not limited to the transferred assets. The following is a summary of the fair value of the assets and carrying amount of related liabilities:

Fair value of the assets not derecognised

31 December 2021	Fair value of the assets	Carrying amount of the related liability	Fair value of the liabilities	Net position
\$ '000				
Financial assets at fair value through profit or loss	371,824	371,824	363,443	8,381

31 December 2020	Fair value of the assets	Carrying amount of the related liability	Fair value of the liabilities	Net position
\$ '000				
Financial assets at fair value through profit or loss	1,198,589	1,055,086	1,055,086	143,503

Continuing involvement in financial assets that have been derecognised

In some cases, the Company transfers financial assets that it derecognises entirely even though it may have continuing involvement in them. This typically happens when the Company has sold a financial asset to a Special Purpose Entity ("SPE") with limited other assets and enters into a derivative with the SPE to provide investors with a specified exposure (examples include credit-linked note vehicles and asset swap vehicles that are established on behalf of investors). The Company is unlikely to repurchase the derecognised financial assets.

The total notional and the market value of all derivatives executed by the Company with such SPEs amounted to \$4.0 billion and \$782 million as of 2021 (\$3.9 billion and \$693 million as of 2020). Due to the nature of the derivatives, the maximum exposure to loss is deemed to be the fair value of those derivatives.

The assets transferred are recorded at fair value, and as such there are immaterial gains and losses recognised upon their transfer. The year to date gains on the derivatives executed by the Company are \$399.2 million as of 2021 (\$171.1 million gains as of 2020).

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

38. Pledged assets and collateral received

The Company pledges assets for various purposes, including to collateralise repurchase and other securities financing agreements, to cover short sales and to collateralise derivative contracts and deposits. Some of these pledged assets may be sold or repledged or otherwise used by the secured parties.

Secured financing transactions expose the Company to credit and liquidity risk. To manage these risks, the Company monitors the value of the underlying securities (predominantly high-quality securities collateral, including government-issued debt and mortgage-backed securities) that it has received from or provided to its counterparties compared to the value of cash proceeds and exchanged collateral, and either requests additional collateral or returns securities or collateral when appropriate. Margin levels are initially established based upon the counterparty, the type of underlying securities, and the permissible collateral and are monitored on an ongoing basis.

Additionally, the Company typically enters into master netting agreements and other similar arrangements with its counterparties, which provide for the right to liquidate the underlying securities and any collateral amounts exchanged in the event of a counterparty default. Further details on netting arrangements are provided in note 34 to the financial statements.

The following table presents the carrying amount of trading assets pledged.

	2021	2020
	\$'000	\$'000
Trading assets pledged (a)	35,076,015	36,505,683

The Company receives collateral primarily in reverse repurchase agreements, securities lending agreements, derivatives transactions, customer margin loans and other transactions. These transactions are generally conducted under terms that are usual and customary for standard secured lending activities and the other transactions described. The Company, as the secured party, has the right to sell or re-pledge such collateral, subject to the Company returning equivalent securities upon completion of the transaction. This right is used primarily to cover short sales, securities loaned and securities sold under repurchase agreements.

The following table presents the fair value of collateral accepted.

	2021	2020
	\$'000	\$'000
Collateral permitted to be sold or repledged, delivered, or otherwise used (b)	535,552,450	561,310,762
Collateral sold, repledged, delivered or otherwise used (b)	420,993,200	467,440,372

(a) Following internal review, it was noted Financial assets at Fair Value through Profit or Loss included trading assets pledged. The above disclosure aims to provide greater insight and granularity into the Company's financing activities, providing the separate disclosure of pledged assets from other financial assets. This includes trading assets pledged where the counterparty has the right to sell/repledge.

(b) Note 34 'Offsetting Financial assets' has historically disclosed the fair value of 'collateral permitted to be sold, repledged or otherwise used' and 'collateral sold, repledged, delivered or otherwise used'. However, this was restricted to securities financing products (Repos/ Reverse Repos and Securities borrowed and Securities lent). The above table provides a global entity view of source and use of collateral in a wider spectrum of activity including: off balance sheet borrows, OTC derivative transactions, short sale transactions, exchange listed derivative margining transactions etc.

Inclusion of the above disclosure has resulted in an increase in 'collateral permitted to be sold or repledged, delivered, or otherwise used' of \$194.5 billion in 2021 (2020: \$194.9 billion); and an increase in 'collateral sold, repledged, delivered or otherwise used' of \$186.8 billion in 2021 (2020: \$196.5 billion).

J.P. MORGAN SECURITIES PLC

Notes to the financial statements (continued)

39. Financial risk management

Disclosures in relation to the Company's risk management and capital management have been presented in the Strategic report on pages 5 - 52 which forms part of these financial statements.

40. Post balance sheet events

Dividends

On 24 March 2022, the Board approved an interim dividend of \$2.5 billion to J.P.Morgan Capital Holdings Limited, which is planned to be paid in April 2022.

Ukraine-Russia crisis

In late February 2022, Russia invaded Ukraine and in response the world imposed severe sanctions against Russia that have impacted the global economy, financial markets and specific industry and economic sectors, including potential recessionary and inflationary pressures. There are also implications for global energy markets, supply chains and potential disruption to global financial infrastructures such as SWIFT.

The Firm faces heightened operational risk in its efforts to comply with these sanctions programs, as the requirements under these programs are highly complex and continue to evolve. The Firm has implemented controls reasonably designed to comply with applicable sanctions and issued guidance to its affected LOBs to assist them with adhering to the Firm's and the Company's obligations.

The Firm is also focused on risks related to the increased potential for cyber-attacks that may be conducted in retaliation for the sanctions imposed on Russia, and has instituted additional precautionary measures to address these risks and procedures to expedite the remediation of any high risk vulnerabilities as they are identified.

As at 31 December 2021, the Company had no significant direct gross exposure to Russia or Ukraine.