Pillar 3 Annual Disclosure Report as at 31st December 2017

J.P. Morgan Capital Holdings Limited

J.P. Morgan Financial Investments Limited

J.P. Morgan Mansart Management Limited

Table of Contents

List of Tables

1. Introduction

Overview

The Basel Committee on Banking Supervision published its set of rules on 16th December 2010, referred to as Basel III. The Basel framework consists of a three 'Pillar' approach:

- **Pillar 1** establishes minimum capital requirements, defines eligible capital instruments, and prescribes rules for calculating risk weighted assets ('RWA');
- **Pillar 2** requires banks to have an Internal Capital Adequacy Assessment Process ('ICAAP') and requires that banking supervisors evaluate each bank's overall risk profile as well as its risk management and internal control processes; and
- **Pillar 3** encourages market discipline through a prescribed set of disclosure requirements which allow market participants to assess the risk and capital profiles of banks.

The transposition of the Basel III framework into European law is in two parts: the Capital Requirements Directive IV (CRD IV/Directive 2013/36/EU) and the Capital Requirements Regulation ('CRR')[1]. It was published in the Official Journal of the European Union on 27th June 2013. Part Eight of CRR includes additional provisions on regulatory disclosure for credit institutions. Both the Directive and the Regulation are applicable since 1st January 2014.

This disclosure contains the Pillar 3 disclosures for J.P. Morgan Capital Holdings Limited, J.P. Morgan Financial Investments Limited and J.P. Morgan Mansart Management Limited; and provides information on the Firm's capital structure, capital adequacy, risk exposures, and RWA.

This disclosure fulfills the requirements as set out in Part Eight of CRR, and in the supplementary Implementing Technical Standards ('ITS')[2] and guidelines issued by the European Banking Authority ('EBA').

These disclosures have been prepared in full accordance with the EMEA Pillar 3 Process document[3], which itself has been approved at Board level by all disclosing entities.

The Pillar 3 process outlines:

- The roles and responsibilities in the production of public disclosure
- The annual assessment process requirements for entity scope, disclosure frequency, accuracy and completeness of disclosure, process for omissions on the grounds of materiality, proprietary or confidentiality, and
- The overall governance requirements around disclosures and the processes to compile them.

The Pillar 3 disclosure has been approved for publication by the Board of Directors of the entities whose disclosure is contained herein. Attestation, that disclosures have been prepared in accordance with the J.P. Morgan EMEA Pillar 3 approved process, has been provided in line with the EBA Guidelines (EBA/GL/2016/11).

Frequency of Disclosure (Article 433)

The UK entities in scope publish an annual report in accordance with Article 433 CRR.

The need to assess whether an institution should disclose some information more frequently than annually, under Part Eight of the CRR originates in Article 433 and the requirements are further articulated in the Guidelines, which were adopted by the Prudential Regulation Authority ('PRA') from 15th October 2015.

All J.P. Morgan Chase entities regulated under the Capital Requirements Directive IV ('CRD IV')[4] Capital Requirements Directive (CRD IV)/Regulation (EU) Directive 2013/36/EU have applied the Guidelines by:

- Enhancing the Pillar 3 process to include a full assessment of the need to publish data more frequently than annually; and
- Identifying the key data elements to disclose in order to meet the needs of potential users of the disclosure.

The internal assessment process (under Title II of Guidelines) to determine which J.P. Morgan entities should disclose more frequently than annually concluded that, of the consolidated entities in scope for this document, only J.P.Morgan Capital Holdings Limited is meeting the qualitative and quantitative thresholds to necessitate more frequent disclosure.

---

[1] Capital Requirements Regulation (CRR) / Regulation (EU) No. 575/2013
[2] EBA /GL/2014/14 Guidelines on materiality, proprietary and confidentiality and on disclosure frequency under Articles 432(1), 432(2) and 433 of Regulation (EU) No. 575/2013 published 23th December 2017 and EBA/ GL/2016/11 Guidelines on disclosure requirements under part eight of regulation (EU) No. 575/2013 published 4th August 2017
[3] J.P. Morgan EMEA Pillar 3 Process document - first published June 2016, latest update and approval April 2018
[4] Capital Requirements Directive (CRD IV) / Regulation (EU) Directive 2013/36/EU

Means of Disclosure (Article 434)

The disclosure report for UK regulated entities is made available according to Article 434 CRR on the website of JPMorgan Chase & Co. at: http://investor.shareholder.com/jpmorganchase/basel.cfm

The ultimate parent of the entities in scope of the disclosure is JPMorgan Chase & Co. ('JPMorgan Chase'), a financial holding company incorporated under Delaware law in 1968. Firmwide disclosure is made under Basel III requirement and is available using the same link as the UK regulated entities disclosure. The report should be read in conjunction with the Annual Report on Form 10-K and the Quarterly Report on Form 10-Q which have been filed with the U.S. Securities and Exchange Commission and available at the following link: http://investor.shareholder.com/jpmorganchase/sec.cfm

Scope of Application (Article 436)

These disclosures are made for J.P. Morgan entities within the U.K. and include disclosure for the following:

- **J.P. Morgan Capital Holdings Limited** ('JPMCHL')
  - The primary subsidiaries of which are J.P. Morgan Securities plc. ('JPMS plc'), J.P. Morgan Europe Limited ('JPMEL'), J.P. Morgan International Bank Limited ('JPMIB') and J.P. Morgan Limited ('JPML')
  - The main activities of the entities within the JPMCHL group are Corporate and Investment Bank ('CIB') activities (primarily within JPMS plc) and Wealth Management (within JPMIB).
  - JPMCHL is the holding company for a number of regulated entities, which are subject to consolidated supervision at the level of JPMCHL
  - JPML is regulated by the FCA
  - JPMS plc, JPMEL and JPMIB are PRA and FCA dual regulated
- **J.P. Morgan Financial Investments Limited** ('JPMFIL'),
  - the primary subsidiary of which is J.P. Morgan Markets Limited ('JPMML') purchased by JPMFIL on 31st July 2017
  - The main activities of the entities within the JPMFIL group consist of CIB activities.
  - JPMFIL is the holding company for a regulated entity, which is subject to consolidated supervision at the level of JPMFIL
  - JPMML is regulated by the FCA
- **J.P. Morgan Mansart Management Limited** ('JPMMML') which does not have a UK Parent entity.
  - The main activities of JPMMML are the provision of strategic asset management services via fund solutions.
  - JPMMML is regulated by the FCA

The scope of consolidation for regulatory capital purposes is consistent with the accounting basis for consolidation.

This document refers to JPMorgan Chase or the Firm when referring to frameworks, methodologies, systems and controls that are adopted throughout JPMorgan Chase and its subsidiaries. Entity names are used to refer to documents, financial resources and other tangible concepts relevant only to that entity.

As required under Article 436 CRR, it is confirmed that outside of regulatory requirements to hold capital, there are no current or foreseen material practical or legal impediments to the prompt transfer of funds or repayment of liabilities among the parent undertakings or, where applicable, their subsidiaries.

No items have been omitted due to materiality reasons under Titles III and IV of the Guidelines. Any line items that are not applicable have been hidden for presentation purposes.

2. Risk Management and Objectives (Article 435)

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 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 business, 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. Firmwide Risk Management is overseen and managed on an enterprise-wide basis. The Firm's approach to risk management covers a broad spectrum of risk areas. The Firm believes that effective risk management requires:

- Acceptance of responsibility, including escalation of risk issues, by all individuals within the Firm;
- Ownership of risk assessment, data and management within each line of business ('LOB') and corporate functions; and
- Firmwide structures for risk governance.

The Firm's Operating Committee, which consists of the Chief Executive Officer ('CEO'), Chief Finance Officer ('CFO'), Chief Risk Officer ('CRO') and other senior executives, is the ultimate management escalation point in the Firm, and may refer matters to the Firm's Board of Directors. The Operating Committee is responsible and accountable to the Firm's Board of Directors.

The Firm's CRO is the head of the Independent Risk Management ('IRM') function and reports to the CEO and the Directors' Risk Policy Committee ('DRPC'). The CEO appoints the CRO to create the Risk Management Framework subject to approval by the DRPC in the form of the Primary Risk Policies. The Chief Compliance Officer, who reports to the CRO, is also responsible for reporting to the Audit Committee for the Global Compliance Program. The Firm's Global Compliance Program focuses on overseeing compliance with laws, rules and regulations applicable to the Firm's products and services to clients and counterparties.

The IRM function, comprised of Risk Management and Compliance Organizations, is independent of the businesses. The IRM function sets various standards for the risk management governance framework, including risk policy, identification, measurement, assessment, testing, limit setting (e.g., risk appetite, thresholds, etc.), monitoring and reporting. Various groups within the IRM function are aligned to the LOBs and to corporate functions, regions and core areas of risk such as credit, market, country and liquidity risks, as well as operational, model and reputational risk governance.

The Firm places key reliance on each of its LOBs and other functional areas giving rise to risk. Each LOB or other functional area giving rise to risk is expected to operate its activities within the parameters identified by the IRM function, and within their own management-identified risk and control standards. Because these LOBs and functional areas are accountable for identifying and addressing the risks in their respective businesses and for operating within a sound control environment, they are considered the 'first line of defense' within the Firm's risk governance framework.

The Firmwide Oversight and Control Group consists of dedicated control officers within each of the LOB and corporate functions, as well as having a central oversight function. The group is charged with enhancing the Firm's control environment by looking within and across the LOBs and corporate functions to help identify and remediate control issues. The group enables the Firm to detect control problems more quickly, escalate issues promptly and engage other stakeholders to understand common themes and interdependencies among the various parts of the Firm.

As the 'second line of defense', the IRM function provides oversight and independent challenge, consistent with its policies and framework, to the risk-creating LOBs and functional areas.

Internal Audit, a function independent of the businesses and the IRM function, tests and evaluates the Firm's risk governance and management, as well as its internal control processes. This function, the 'third line of defense' in the risk governance framework, brings a systematic and disciplined approach to evaluating and improving the effectiveness of the Firm's governance, risk management and internal control processes. The Internal Audit Function is headed by the General Auditor, who reports to the Audit Committee. 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, or the Board of Directors.

Risk Governance and Oversight

Within the Europe, Middle East and Africa ('EMEA') region, a governance framework has been developed in alignment with Firmwide policies and procedures and provides an additional layer of control on a regional and legal entity basis.

Each regulated legal entity has its own Board of Directors which is accountable for overall oversight of the entity. The Boards delegate certain matters to a number of key regional Committees for regional risk control and oversight. The EMEA governance framework connects legal entity, LOB and global governance structures. The key committees of relevance are the EMEA Management Committee ('EMC'), the EMEA Risk Committee ('ERC'), the EMEA Operating Committee ('EOC') and the EMEA Assets and Liabilities Committee ('EMEA ALCO'):

- The primary role of the EMC is to provide oversight for any business conducted by the Firm in the UK including business booked into UK legal entities or UK branches of ex-UK entities, excluding Asset and Wealth Management business which is not booked in those legal entities delegating authority to the EMC (Asset and Wealth Management entities have their own management committees where appropriate). In addition, the EMC provides regional oversight for business conducted within EMEA excluding Asset and Wealth Management business. In this respect, the EMC complements and is a regional supplement to the existing global and legal entity governance framework in place for relevant EMEA legal

entities and businesses. Additionally the Regional Management Meeting provides holistic oversight of EMEA activities outside formal governance structures, including Asset and Wealth Management activity.

- The ERC provides oversight and challenge of risks for any business conducted in EMEA or booked into EMEA entities, and is chaired by the EMEA CRO. The ERC is accountable to the EMC and the Firmwide Risk Committee ('FRC') (where the EMEA CRO is also a member) and the Boards of the individual legal entities. The ERC met 22 times during 2017.

- The EOC provides oversight and management of the operating environment to ensure appropriate management of operational risk and the maintenance of a sound internal control environment across all LOBs in the EMEA region. The EOC is accountable to the EMC and the Boards of the individual legal entities.

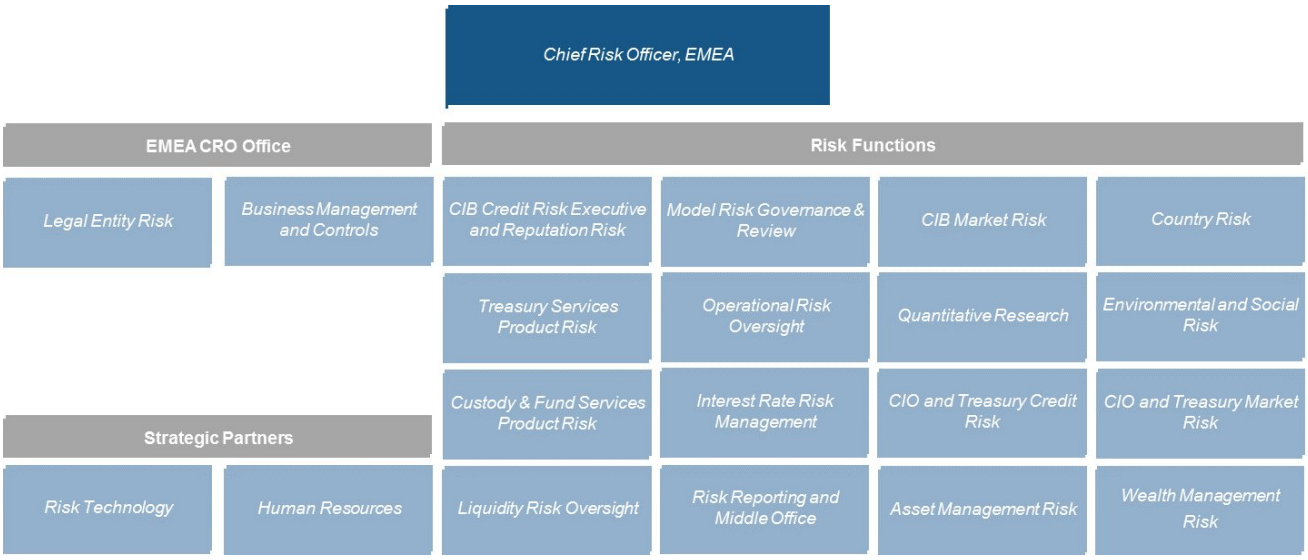
The Committees above may delegate responsibility for management and oversight of risks to other committees or forums. Additionally, the EMEA Audit and Compliance Committee reports into the global Audit Committee and the Boards of the individual legal entities, and oversees the integrity of financial statements, monitors and reviews internal financial controls and the effectiveness of the Internal Audit function.

Global Legal Entity Risk Framework

In 2016, the Global Legal Entity Risk framework was established to support risk governance and oversight in relation to legal entities. The framework is designed to drive appropriate oversight, best practices and escalation for legal entities globally based on tiered governance principles.

The framework assigns Risk Tiers from 1 to 4 to the Firm's significant operating entities across all lines of business, where Tier 1 represents the highest level of Risk Management oversight required. 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. Legal Entity Risk Managers have been appointed for all Tier 1, 2 and 3 entities.

EMEA Risk Management Organisation



Identification and Measurement of Key Risks

The entities in scope complete the Internal Capital Adequacy Assessment Process ('ICAAP') periodically, which forms part of management and decision-making processes such as the Firm's risk appetite, strategy, capital and risk management frameworks, and stress testing. The ICAAP is used to assess the key risks to which the Firm is exposed; how these risks are measured, managed, monitored and mitigated; and how much capital the Firm should hold to reflect these risks now, in the future and under stressed conditions. Further information is provided on the ICAAP process under Art. 438 of CRR.

Credit Risk

Credit risk is the risk associated with the default or change in credit profile of a customer, client or counterparty. The Firm provides credit to a variety of customers, ranging from large corporate and institutional clients to individual consumers and small businesses. In its consumer businesses, the Firm is exposed to credit risk primarily through its home lending, credit card, auto, and business banking businesses. In its wholesale businesses, the Firm 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 cash management and clearing activities), securities financing activities, investment securities portfolio, and cash placed with banks.

Credit Risk Organization

Credit risk management is an independent risk management function that 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 CRO. The Firm's credit risk management governance includes the following activities:

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

The Firm has developed policies and practices that are designed to preserve the independence and integrity of the approval and decision-making process of extending credit to ensure credit risks are assessed accurately, approved properly, monitored regularly and managed actively at both the transaction and portfolio levels. 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 line of businesses.

Risk Identification and Measurement

The Credit Risk Management function monitors, measures and limits credit risk across the Firm's businesses. To measure credit risk, the Firm employs methodologies for estimating the likelihood of obligor or counterparty default and the loss severity given a default event and the exposure at default. Methodologies for measuring credit risk vary depending on several factors, including type of asset, (e.g., consumer versus wholesale), risk measurement parameters (e.g., delinquency status and borrower's credit score versus wholesale risk-rating) and risk management and collection processes (e.g., retail collection centre versus centrally managed workout groups). 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.

Based on these factors and related market-based inputs, the Firm estimates credit losses for its exposures. Probable credit losses inherent in the wholesale loan portfolios are reflected in the provision for loan losses and probable credit losses inherent in lending-related commitments are reflected in the provision for lending related commitments. These losses are estimated using empirical statistical analyses and other factors. In addition, potential and unexpected credit losses are reflected in the allocation of credit risk capital and represent the potential volatility of actual losses relative to the established allowances for loan losses and lending related commitments. The analyses for these losses include stress testing (considering alternative economic scenarios) and are described in the stress testing section below. Risk-Rated Exposure

For the risk-rated portfolio, credit loss estimates are based on estimates of the probability of default ('PD') and loss severity given a default. The probability of default is the likelihood that a borrower will default on its obligation; the loss given default ('LGD') is the estimated loss on the loan that would be realized upon the default and takes into consideration collateral and structural support for each credit facility. The estimation process includes assigning risk ratings to each borrower and credit facility to differentiate risk within the portfolio. These risk ratings are reviewed regularly by Credit Risk Management and revised as needed to reflect the borrower's current financial position, risk profile and any collateral. The calculations and assumptions are based on both internal and external historical experience and management judgment and are reviewed regularly.

Stress Testing

Stress testing is important in measuring and managing credit risk in the Firm's credit portfolio. The process assesses the potential impact of alternative economic and business scenarios on estimated credit losses for the Firm. 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 Firm and LOB level as well as to assess the impact of stress on individual counterparties.

Credit Risk Approval and Control

Approval of clients: All clients are subject to credit analysis and financial review by Credit Risk Management before new business is accepted.

Establishment of credit lines: All credit exposure must be approved in advance by a Credit Officer(s) with the level of credit authority required by the applicable credit authority grid unless qualifying for rules-based policies, described separately below. The approval is recorded in iCRD Proposals and credit lines are recorded on the Credit Risk Infrastructure System ('CRI'). Credit Officers approve intraday, advised and unadvised overdraft lines for clients based on analysis undertaken by

Credit Risk Management.
In some instances, credit lines can be approved according to predetermined rules that are subject to annual review by the appropriate Credit Officers. The policy framework governing this provides a single, consistent global approach while allowing the application of differing local requirements.

Intraday exposure control: Intraday credit risk exposure arising from cash payments is captured by the Firm's intraday exposure control system and requires approval of the payment by a Credit Officer. The Intraday Exposure Transaction Approval Group ('TAG') monitors intraday exposure control systems for withheld items. Officers within TAG have delegated approval authority according to firm-wide policy to release items according to a matrix based on the risk grade of the client and the value of the overall exposure to that client. TAG will either release the item under individual delegated approval authority or contact the client via Client Services and wait for confirmed receipt of funds. All payments are referred for approval to TAG prior to currency cut-off times rather than immediately after they are received.

Risk Monitoring and Management

Wholesale 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 wholesale 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; and
- Collateral and other risk-reduction techniques.

In addition to Risk Management, an independent Credit Review function is responsible for: Independently validating or changing the risk grades assigned to exposures in the Firm's wholesale and commercial-oriented retail credit portfolios, and assessing the timeliness of risk grade changes initiated by responsible business units; and

- Evaluating the effectiveness of business units' credit management processes, including the adequacy of credit analyses and risk grading/LGD rationales, proper monitoring and management of credit exposures, and compliance with applicable grading policies and underwriting guidelines.

Risk Reporting

To enable monitoring of credit risk and effective decision-making, aggregate credit exposure, credit quality forecasts, concentration levels and risk profile changes are reported regularly to senior members of Credit Risk Management.. Detailed portfolio reporting of industry, customer, product and geographic concentrations occurs monthly, and the appropriateness of the allowance for credit losses is reviewed by senior management at least on a quarterly basis. Through the risk reporting and governance structure, credit risk trends and limit exceptions are provided regularly to, and discussed with, risk committees, senior management and the Board of Directors as appropriate

Market Risk

Market risk is the exposure to an adverse change in the market value of financial instruments caused by a change in market parameters. The primary categories of market parameters are:

- **Interest rate** risks primarily result from exposures to changes in the level, slope and curvature of the yield curve, the volatility of interest rates, and mortgage prepayment rates;
- **Foreign exchange rate** risks result from exposures to changes in prices and volatility of currency rates;
- **Equity price** risks result from exposures to changes in prices and volatility of individual equities, equity baskets and equity indices;
- **Credit spreads** are the difference between yields on corporate debt subject to default risk and government bonds;
- **Commodity price** risks result from exposures to changes in prices and volatility of commodities, such as natural gas, crude oil, petroleum products, precious and base metals and electricity.

Firmwide Market Risk Governance

As per the firmwide Market Risk Management Policy framework, the Market Risk Firmwide Risk Executive ('FRE') and Line Of Business Chief Risk Officers ('LOB CROs') are responsible for establishing an effective market risk organization. The FRE, LOB Heads of Market Risk establish the framework to measure, monitor and control market risk.
The Market Risk function is scaled and organised according to the amount and complexity of market risk arising from the business activity. Market risk management may be the responsibility of a dedicated Market Risk group or may be performed as part of the broader Risk Management function.
In addition to the Risk Governance framework detailed in the Risk Governance policy, additional senior Market Risk management risk oversight is provided via two Forums, which typically convene monthly:

- **Firmwide Market Risk Forum:**

Platform for discussion of strategic market risk initiatives, market risk measurement and methodology changes (e.g., stress test shocks), policy and procedures and other matters as appropriate. The Firmwide Market Risk Forum is not intended to discuss current market risk events or positions, as these are discussed at LOB Risk Committees, as well as
various business as usual MR meetings, as appropriate.

- **Market Risk Control Forum:**

Platform for discussion of operational control issues impacting the end-to-end Market Risk organization. The Market Risk Control Forum provides appropriate governance, transparency and escalation of material control issues.

UK LE Market Risk Governance

The Legal Entity approach to risk governance mirrors the Firmwide approach, and is recorded within the JPMS plc, JPMEL and JPMML, Market Risk Management policies and procedures. The Legal Entity Chief Risk Officer ('CRO') and Market Risk Officer ('MRO') are responsible for considering the Firmwide methodologies / procedures with respect to each Legal Entity.

Oversight, review and approval of these Legal Entity policies are conducted by the respective LE Directors' Risk Policy Committees/ Boards to approve, at least annually.

Governance is also achieved through the following risk committees:

- **EMEA Risk Committee ('ERC')**

As mentioned previously, the ERC provides oversight of the risks inherent in the Firm's business conducted or booked into EMEA entities and EMEA branches of ex-EMEA firms. As part of the risk governance the ERC receives information on headline exposures, limit breaches, the LE risk profile and stress. The ERC receives updates from sub-committees and any other items which require escalation, convening at least monthly.

- **UK Market Risk Committee ('UK MRC')**[5]

JPMS plc risk profile and market risk related items are reviewed and discussed at the UK MRC, which is a sub-committee to the ERC. The UK MRC convenes monthly and is attended by market risk representatives from each LOB, with invitation extended to other risk related groups from time to time. Items covered include risk analysis on topical market events that could result in material losses for JPMS plc, and significant items related to market risk methodology matters e.g. stress methodology changes. LOB representatives provide risk updates in relation to significant changes to legal entity specific risk profiles.

Note that due to the nature of the business conducted in JPMMML, there is limited market risk arising from this activity. The description of Market Risk Management practices described in this document does not apply to this entity as this entity is covered under the enterprise wide Market Risk Management framework alternative control processes are in place.

Firmwide Risk Measurement

Multiple measures are used to capture market risk and set limits as appropriate. These measures include, but are not limited to, VaR, Stress Testing, Non-statistical measures, Profit & Loss ('P&L') Drawdowns / Loss Advisories, Single Name Position Risk ('SNPR'). As the appropriate set of risk measures utilized for a given business activity depends on business mandate, risk horizon, materiality, market volatility and other factors, not all measures are used in all cases.

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 framework is employed across the Firm using historical simulation based on data for the previous 12 months. The framework's approach assumes that historical changes in market values are representative of the distribution of potential outcomes in the immediate future. The Firm believes the use of Risk Management VaR provides a stable measure of VaR that closely aligns to the day-

[5] Changed to the EMEA Market Risk Forum in Q2 2018.

to-day risk management decisions made by the lines of business, and provides the necessary and appropriate information needed to respond to risk events on a daily basis.
Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. VaR provides a consistent framework to measure risk profiles and levels of diversification across product types and is used for aggregating risks across businesses and monitoring limits. These VaR results are reported to senior management, the Board of Directors and regulators.

The Firm's VaR model calculations are periodically evaluated and enhanced in response to changes in the composition of the Firm's portfolios, changes in market conditions, improvements in the Firm's modelling techniques and other factors. Such changes may also affect historical comparisons of VaR results. Model changes undergo a review and approval process by the Model Review Group prior to implementation into the operating environment.
The Firm calculates separately a daily aggregated VaR in accordance with regulatory rules (Regulatory VaR), which is used to derive the Firm's regulatory VaR-based capital requirements under Basel III. This Regulatory VaR model framework currently 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.

Stress Testing

Along with VaR, stress testing is an important tool in measuring and controlling risk. While VaR reflects the risk of loss due to adverse changes in markets using recent historical market behaviour as an indicator of losses, stress testing is intended to capture the Firm's exposure to unlikely but plausible events in abnormal markets. The Firm runs 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 or commodity prices.

The Firm uses 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. For example, certain scenarios assess the potential loss arising from current exposures held by the Firm due to a broad sell off in bond markets or an extreme widening in corporate credit spreads. 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. The stress testing framework is known as Firmwide Stress Infrastructure ('FSI') which is a risk management tool that simulates changes to the prices of trading assets across a range of economic and market scenarios. It is used to measure the Firm's vulnerability to losses under a range of stressed but plausible market environments and to understand the risk factors and assets responsible for those losses.

Stress testing complements VaR by allowing risk managers to shock current market prices to more extreme levels relative to those historically realized, 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 Lines of Business ('LOB') and Firm's senior management 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. In addition, results are reported to the Board of Directors.

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.

Non-statistical risk measures

Non-statistical risk measures include sensitivities to variables used to value positions, such as credit spread sensitivities, interest rate basis point values and market values. These measures provide granular information on the Firm's market risk exposure. They are aggregated by LOB and by risk type, and are also used for monitoring internal market risk limits.

Profit & Loss ('P&L') Drawdowns / Loss advisories

P&L drawdowns and loss advisories are tools used to highlight trading losses above certain levels of risk tolerance. P&L drawdowns are defined as the decline in net profit and loss since the year-to-date peak revenue level.

Single Name Position Risk ('SNPR')

SNPR captures exposures to credit families (and entities within credit families) or standalone issuers/issuers families not part of credit families, assuming default of the issuer with zero recovery.

Firmwide Market Risk Monitoring and Management

Market risk is controlled primarily through a series of limits set in the context of the market environment and business strategy. In setting limits, the Firm takes into consideration factors such as market volatility, product liquidity and accommodation of client business and management experience. The Firm maintains different level of limits. Corporate level limits include VaR and stress limits. Similarly, LOB limits include VaR and stress limits and may be supplemented by loss advisories, non-statistical measurements and P&L drawdowns. Limits may also be set within the LOBs, as well at the portfolio or legal entity level.
Limits are set by Market Risk and are regularly reviewed and updated as appropriate, with any changes approved by LOB management and Market Risk. Senior management, including the Firm's CEO and CRO, are responsible for reviewing and approving certain of these risk limits on an ongoing basis. All limits that have not been reviewed within specified time periods by Market Risk are escalated to senior management. The LOBs are responsible for adhering to established limits against which exposures are monitored and reported.

Limit breaches are required to be reported in a timely manner to limit approvers, Market Risk and senior management. In the event of a breach, Market Risk consults with Firm senior management and the LOB senior management to determine the appropriate course of action required to return to compliance, which may include a reduction in risk in order to remedy the breach. Certain Firm of LOB-level limits that have been breached for three business days or longer, or by more than 30%, are escalated to senior management and the Firmwide Risk Committee.

Additional controls beyond market risk limits - including but not limited to Authorized Instruments, LOB Pre-trade Transaction Guidelines and E-Trading Control Standards - are also employed as a means to control market risk.
Authorized Instruments ('AI') are instruments that each business unit within the LOB are permitted to trade when engaging in either trading or hedging activities. Trading desks must only trade products listed in the relevant AI inventory.
LOB Pre-Trade Transaction Guidelines ('PTG') framework is an integral Market Risk control and plays a key role to evidence Market Risk Coverage's ('MRC') effective challenge of the business engaging in either trading or hedging activities. PTG Guidelines define the PTG triggers and are in place for each trading line of business (CIB, CIO, Treasury and Mortgage Bank). Businesses are primarily required to follow the applicable PTG and are responsible for notifying or seeking approval from Market Risk in the case of trades requiring pre-trade notification or approval.

E-Trading Control Standards define Key Controls associated with Machine Discretion E-Trading Activities (Activities). These Standards work in conjunction with the E-Trading Product Development Standards governing E-Trading Activities.

Material Portfolio of Covered Positions

JPMCHL's market risks arise predominantly from activities in the Firm's CIB business booked in JPMS plc. CIB makes markets in products across fixed income, foreign exchange, equities and commodities markets. JPMCHL's portfolio of covered positions under Basel III is predominantly held by the CIB. Some additional covered positions are held by the Firm's other LOBs. JPMFIL's market risks arise from positions in the Firm's CIB business booked in JP Morgan Markets Limited.

Operational Risk

Operational risk is the risk associated with inadequate or failed internal processes, people and systems, or from external events; operational risk includes cybersecurity risk, business and technology resiliency risk, payment fraud risk, and third-party outsourcing risk. Operational risk is inherent in the Firm's activities and can manifest itself in various ways, including fraudulent acts, business interruptions, inappropriate employee behaviour, failure to comply with applicable laws and regulations or failure of vendors to perform in accordance with their arrangements. These events could result in financial losses, litigation and regulatory fines, as well as other damages to the Firm. The goal is to keep operational risk at appropriate levels in light of the Firm's financial position, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

Firmwide Operational Risk Management Framework

To monitor and control operational risk, the Firm has an Operational Risk Management Framework ('ORMF') which is designed to enable the Firm to maintain a sound and well-controlled operational environment. The ORMF has four main components: Governance, Risk Identification and Assessment, Measurement, and Monitoring and Reporting.

Governance

The lines of business and corporate functions are responsible for owning and managing their operational risks. The Firmwide Control Management Group, which consists of control officers within each line of business and corporate function, is responsible for the day-to-day execution of the ORMF. Line of business and corporate function control committees oversee the operational risk and control environments of their respective businesses and functions. These committees escalate operational risk issues to the Firmwide Control Committee ('FCC'), as appropriate. The Firmwide Risk Executive for Operational Risk Governance ('ORG'), a direct report to the Chief Risk Officer ('CRO'), is responsible for defining the ORMF and establishing minimum standards for its execution. Operational Risk Officers report to both the line of business CROs and to the Firmwide Risk Executive for ORG, and are independent of the respective businesses or corporate functions they oversee. The Firm's Operational Risk Governance Policy is approved by the Directors' Risk Policy Committee ('DRPC'). This policy establishes the Operational Risk Management Framework for the Firm.

Risk Assessment

The Firm utilizes several tools to identify, assess, mitigate and manage its operational risk. One such tool is the Risk and Control Self-Assessment ('RCSA') program which is executed by LOBs and corporate functions in accordance with the minimum standards established by ORG. As part of the RCSA program, lines of business and corporate functions identify key operational risks inherent in their activities, evaluate the effectiveness of relevant controls in place to mitigate identified risks, and define actions to reduce residual risk. Action plans are developed for identified control issues and businesses and corporate functions are held accountable for tracking and resolving issues in a timely manner. Operational Risk Officers independently challenge the execution of the RCSA program and evaluate the appropriateness of the residual risk results. In addition to the RCSA program, the Firm tracks and monitors events that have led to or could lead to actual operational risk losses, including litigation-related events. Responsible businesses and corporate functions analyze their losses to evaluate the effectiveness of their control environment to assess where controls have failed, and to determine where targeted remediation efforts may be required. ORG provides oversight of these activities and may also perform independent assessments of significant operational risk events and areas of concentrated or emerging risk.

Measurement

In addition to the level of actual operational risk losses, operational risk measurement includes operational risk based capital and operational risk loss projections under both baseline and stressed conditions. The primary component of the operational risk capital estimate is the Loss Distribution Approach ('LDA') statistical model, which simulates the frequency and severity of future operational risk loss projections based on historical data. The LDA model is used to estimate an aggregate operational risk loss over a one-year time horizon, at a 99.9% confidence level. The LDA model incorporates actual internal operational risk losses in the quarter following the period in which those losses were realized, and the calculation generally continues to reflect such losses even after the issues or business activities giving rise to the losses have been remediated or reduced. As required under the Basel III capital framework, the Firm's operational risk-based capital methodology, which uses the Advanced Measurement Approach, incorporates internal and external losses as well as management's view of tail risk captured through operational risk scenario analysis, and evaluation of key business environment and internal control metrics. The Firm considers the impact of stressed economic conditions on operational risk losses and develops a forward looking view of material operational risk events that may occur in a stressed environment. The Firm's operational risk stress testing framework is utilized in calculating results for the Firm's Comprehensive Capital Analysis and Review ('CCAR') framework and Internal Capital Adequacy Assessment Processes ('ICAAP').

Monitoring and Reporting

ORG has established standards for consistent operational risk monitoring and reporting. The standards also reinforce escalation protocols to senior management and to the Board of Directors. Operational risk reports are produced on a firmwide basis as well as by line of business and corporate function.

Liquidity Risk

For Liquidity Risk please refer to section 20 on page 71.

Interest Rate Risk in the Banking Book ('IRRBB')

IRRBB is defined as Interest Rate Risk ('IRR') resulting from the firm's traditional banking activities (accrual accounted on and off balance sheet positions) which includes extension of loans and credit facilities, taking deposits and issuing debt (collectively referred to as 'non-trading' activities); and also the impact from CIO investment portfolio and other related CIO, Treasury activities. IRR from non-trading activities can occur due to a variety of factors, including but not limited to:

- Difference 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; and
- 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 DRPC. The CIO, Treasury and Other Corporate Risk Committee ('CTC RC') is the governing committee with respect to IRRBB.

- Reviews the IRR Management policy;
- Reviews the IRR profile of the firm and compliance with IRR limits; and
- Reviews significant changes to IRR models and/or model assumptions.

In addition to CTC RC, IRR exposures and significant model and/or model assumptions changes are reviewed by the ALCO. The 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.

The CTC RC also governs the IRR Management Group; an independent dedicated Risk Group within CTC and reports into the CTC CRO. IRR Management is responsible for, but not limited to, the following:

- Creating governance over IRR assumptions and parameter selection/calibration; and
- Identifying and monitoring IRR and establishing limits as appropriate.

Risk Identification and Measurement

CIO manages IRRBB exposure on behalf of the firm by identifying, measuring, modelling and monitoring IRR across the firm's balance sheet. CIO identifies and understands material balance sheet impacts of new initiatives and products and executes market transactions to manage IRR through CIO investment portfolio's positions. Execution by CIO will be based on parameters established by senior

management, per the CIO Investment Policy. In certain Legal entities, Treasury manages IRR in partnership with CIO. LOBs are responsible for developing and reviewing specific LOB IRR modelling assumptions.

Measures to manage IRR are:

- **Earnings-at-Risk** is a primary measure used to gauge the firm's shorter term IRR exposure which measures the sensitivity of pre-tax income to changes in interest rates over rolling 12 months compared to base scenario (Level 1 Market Risk limit applied).

- **Economic Value Sensitivity** is an additional Firmwide metric utilized to determine changes in asset/liability values due to changes in interest rates.

Securitisation Risk

The risks related to securitisation and resecuritisation positions are managed in accordance with the Firm's credit risk and market risk management policies. The Firm's due diligence procedures and risk management and mitigation of securitisation risk are detailed further under Article 449 of CRR.

Market Risk Monitoring

Market Risk measures, monitors and controls market risk exposures arising from relevant business activities including, but not limited to, trading in securitized products.

Under this framework market risk limits are the primary control used to manage the levels of exposure and risk taken by the business. These limits are set by Market Risk, and it is the responsibility of the business to manage risk exposures within these limits unless expressly authorized by a Temporary Limit Approval.

Market risk reporting and limits are defined by Market Risk utilizing the relevant risk measures which include, but are not limited to, VAR, Stress, and non-statistical measures. The content, frequency and distribution of market reports is defined by Market Risk.
The Market Risk Policy and Procedures include the controls which are used to manage the risk profile of the businesses

In addition to the daily reporting, risk management activities, and frequent discussion between Market Risk and the business, weekly senior management meetings are scheduled between Front Office and Market Risk where such items as, but not limited to, sizeable transactions or market events impacting risk exposures are discussed.

Credit Risk Mitigation

The credit risk team works closely with the business during both the transaction structuring phase and post close (through ongoing monitoring) in order to assess and mitigate the credit risk of both securitisation and re-securitisation positions. Tools typically employed are (i) at the transaction level: analysis of the underlying collateral (data modelling, due diligence, asset audit), structure/ documentation negotiation and interest rate/FX derivative hedging strategies; and (ii) at the portfolio level: portfolio limits, transaction diversification and other ongoing assessments.

Risk management is carried out on a regional basis with approval levels for new or renewing transactions being derived by relevant credit specific policies and grids. Credit risk is booked and reported across a variety of risk systems.
Securitisation exposures may be sensitive to interest rates, foreign exchange movements and to the broader credit environment. The firm may employ various hedging strategies for these risks at a transaction and/or portfolio level including swaps, forwards and other credit derivatives.

Fiduciary Risk

Fiduciary risk is the risk of a failure to exercise the applicable standard of care, to act in the best interests of clients or treat clients fairly as required under applicable law or regulation.
Depending on the fiduciary activity and capacity in which the Firm is acting, US federal, state and/or international statutes, regulations and common law require the Firm to adhere to specific duties in which the Firm must always place the client's interests above its own.

As an example, common law requires that fiduciaries act in accordance with the duties of loyalty and care:

- **Duty of Loyalty**: Act in the best interest of their clients, refrain from impermissible self-dealing, avoid or manage conflicts of interest; and,

- **Duty of Care**: Manage client assets with reasonable care, skill, and prudence in context of whole portfolio and individual securities.

Each Business with fiduciary obligations is responsible for meeting these obligations. Senior business, legal, risk and compliance managers work with the relevant LOBs with the goal of ensuring that businesses providing investment, trusts and estates, or other fiduciary products or services that give rise to fiduciary duties to clients perform at the appropriate standard relative to their fiduciary relationship with a client. Each LOB and its respective governance forums and committees are responsible for the oversight and management of the fiduciary risks in their businesses in accordance with the firmwide fiduciary risk governance framework. Of particular focus are the policies and practices that address a business's responsibilities to a client, including performance and service requirements and expectations; client suitability determinations; and disclosure obligations and communications. In this way, the relevant LOB governance committees provide oversight of the Firm's efforts to monitor, measure and control the performance and

delivery of the products or services to clients that may give rise to such fiduciary duties, as well as the Firm's fiduciary responsibilities with respect to the Firm's employee benefit plans.

The Firmwide Fiduciary Risk Governance Committee is a forum for risk matters related to the Firm's fiduciary activities and oversees the firmwide fiduciary risk governance framework which supports the consistent identification and escalation of fiduciary risk issues by the relevant LOBs or corporate functions responsible for managing fiduciary activities. The committee escalates significant issues to the Firmwide Risk Committee and any other committee considered appropriate.

Leverage Risk

Leverage is defined at a high level as the ratio of a firm's assets, off-balance sheet obligations, commitments and contingencies to its capital base. There is a risk that, either through excessive growth or erosion of the capital base, the degree of leverage becomes unsustainable. This in turn may require unintended corrective measures to the entities' business plans, including distressed selling of assets which might result in losses or in valuation adjustments to remaining assets.

Risk Management

Leverage risk is monitored through the same processes and frameworks as capital adequacy and stress-testing. The latter is particularly important, as it is forward-looking: if the Firm's leverage ratios remain sustainable under stressed conditions, the risk of forced de-leveraging will be low.

Risk Reporting and Measurement

The capital adequacy framework is based around a regular cycle of point-in-time capital and leverage calculations and reporting, supplemented by forward-looking projections and stress-testing. Each part of the process is subject to rigorous control.

The entities in scope complete the ICAAP periodically, which provides management with a view of the impact of severe and unexpected events on earnings, capital resources, risk-weighted assets and balance sheet. The Firm's ICAAP integrates stress testing protocols with capital and leverage planning. More detail on the ICAAP is included in Section 4. Capital Requirements.
.

Risk Mitigation

The entities in scope are subject to a defined framework of target capital and leverage levels, as well as specific thresholds / triggers for escalation and action. Based on this framework, corrective action is taken as and when required to maintain an appropriate level of leverage.

Business Risk

Business risk is the risk associated with the Firm's current and future business plans and objectives. Business risk includes the risk to current or anticipated earnings, capital, liquidity, enterprise value, or the Firm's reputation arising from adverse business decisions, poor implementation of business decisions, or lack of responsiveness to changes in the industry or external environment.

Risk Management

Business risk as it impacts capital is managed through the entities' strategic and business planning as part of their Capital Management Framework.
Business risk is also considered and managed in a wider context. For example, for new products and services, failure to identify new or changed risks may expose the Group 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. Mandatory signoffs for NBIAs include the CRO or legal entity risk manager for each entity and the EMEA Legal Entity Controller, ensuring the risk implications for an entity are considered in NBIA decisions as well as the compatibility of NBIAs with the strategy for relevant entities. A thorough risk review is also required with LOB and cross functional participation to address all potential risks including any heightened risk due to complexity, valuation and a less favourable economic environment.

Risk Reporting and Measurement

J.P. Morgan's stress testing programme is an important component in managing, measuring and reporting business risk, testing the Firm's financial resilience in a range of severe economic and market conditions. For example, quarterly baseline and stressed capital plans are prepared under the ICAAP framework, which include P&L projections (as well as RWAs and the overall capital position) over the three-year time horizon modelled.

Risk Mitigation

Capital projections are used as a tool to help mitigate business risk. If the baseline capital projections, which include P&L projections from the LOB, show a reduction in the earnings, this could be an indicator that a strategy is not implemented successfully. Similarly, where the stressed capital projections show risks to capital beyond the entities' risk appetite, remedial action is taken.
Additionally, where unacceptable risks are identified through the NBIA process, changes are made to the new business initiative prior to their implementation or the initiative is withdrawn.

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 Firmwide Risk Committee and DRPC.

The Firm's Risk Appetite framework is reviewed on an ongoing basis, and is reviewed with the FRC and DRPC at least annually. JPMCHL and JPMFIL material subsidiary have their own risk appetite policy including quantitative and qualitative parameters leveraging the Firm's framework and approved annually by the relevant Boards. The ERC and relevant DRPC as applicable review the risk appetite parameters quarterly.

Key figures and ratios regarding the interaction between the risk profile and the risk appetite are deemed to be proprietary information as it relates to competitively significant operational conditions and business circumstances, as defined within EBA guidelines EBA/GL/2014/14.

Board Declaration - Adequacy of Risk Management Arrangements

The Boards of entities in scope of the disclosure are satisfied that Management has taken reasonable care to establish and maintain risk systems and controls as appropriate to the business.

Members of the Board of Directors

J.P. Morgan Capital Holdings Limited

As at 31st December 2017, the JPMCHL Board is comprised of five directors. On 8th February 2018, Mr Kemp has resigned from the Board and the Board is comprised of four directors since this date. The directors are:

Deborah Toennies

Ms. Toennies joined the Board of JPMCHL in February 2016. She is a Managing Director and the Head of Regulatory Affairs for the Corporate and Investment Bank. Prior to this she has held various roles within JPMorgan including Head of Conduit Management and Business Development, and as a Managing Director in both Structured Credit Products and Securitised Products Group. Before joining JPMorgan, Ms. Toennies worked at Coldwell Banker as a Senior Auditor, and Arthur Andersen & Company as a Staff Auditor. Ms. Toennies has an MBA in Finance and Strategy Management from the University of Chicago, and a BS in Accountancy from Miami University.

Jean-Jacques Lava

Mr. Lava joined the Board of JPMCHL in February 2016. He joined JPMorgan in 1998, and is currently an Executive Director and the Chief Financial Officer for Continental Europe within the JPMorgan Investment Management line of business. Prior to JPMorgan, Mr Lava worked for Deloitte in Luxembourg focussing on external audit and consultancy work. He is a Board member of JPMorgan Asset Management (Europe) Sarl, and other Asset Management companies. Mr Lava holds a BA specialising in Finance from the University of Liege, and is a chartered accountant.

Jonathan Griffin

Mr. Griffin joined the Board of JPMCHL in June 2006. He is the chairman of JPMCHL and is managing director and CEO of JPMorgan Asset Management (Europe) Sarl ('JPMAME') in Luxembourg. Mr. Griffin has held various senior management positions within the JPMorgan group since joining the firm in 1986 and has worked in Germany, Japan, Luxembourg and the UK. JPMAME is an authorised UCITS and AIF Management Company with branches in eight European countries. JPMAME supervises the activities of JPMorgan's Luxembourg domiciled mutual fund ranges which are registered for distribution in over 30 countries worldwide. Mr Griffin has also been a Board member of ALFI (the Association of Luxembourg Mutual Funds) since 2007.

Edward Kemp

Mr Kemp joined the Board of JPMCHL in September 2015. He is currently the Senior Financial Officer and an Executive Director at J.P. Morgan Bank Luxembourg SA. He is a member of the Bank's Executive Committee. He joined J.P. Morgan in March 2015. Before joining J.P. Morgan, he worked for BNY Mellon for eight years, most recently as the group's Senior Risk Officer for Continental Europe, as well as the Chief Risk Officer and member of the Board of Directors of BNY Mellon SA/NV in Brussels. Previously, he was the Chief Financial Officer and a Deputy General Manager of BNY Mellon (Luxembourg) SA. Mr Kemp is a Fellow of the Chartered Institute of Management Accountants ('FCMA', 'CGMA'), and holds a BSc (Econ) from the London School of Economics and an MBA from Cranfield School of Management.
Edward Kemp has left the Company and resigned from the Board with effect on 8th February 2018.

Frédéric Mouchel

Mr Mouchel is a Managing Director in JPMorgan Chase's Corporate & Investment Bank. He has relocated to Luxembourg in 2016 where he leads the Treasury Services Business. Prior to taking this role, Mr Mouchel was J.P. Morgan Europe Middle East and Africa (EMEA') Treasurer. Over the last 20 years, Mr Mouchel has had held various management roles in the firm's Treasury function in the Investment Bank as well as in Finance and Corporate based first in Paris and since 2000 in London. He was EMEA Treasurer since early 2007. Before transferring to the front office and becoming Branch Treasurer for Paris in 1995, he held various positions mostly as a financial controller for market activities. He joined the firm in 1987. Frédéric graduated from Ecole Supérieure des Sciences Commerciales d'Angers - France ('ESSCA') in 1986.

Directorships

Members of the Board of Directors have also held internal and/or external directorships during the year ended 31st December 2017 as follows:

Name	Internal Directorships	External directorships
Fred Mouchel	1	0
Deborah Toennies	1	0
Jean-Jacques Lava	1	0
Jonathan Griffin	1	1
Edward Kemp	1	0

Note: Directorships held within the same group are counted as a single directorship, and those in organisations with non-commercial objectives are disregarded.

J.P. Morgan Financial Investment Limited

As at 31st December 2017, the JPMFIL Board is comprised of three directors. The directors are:

Stephen White, Chairman

Mr White joined the Board of J.P. Morgan Financial Investments Limited in September 2013. He is currently a Managing Director, and UK Controller, covering UK Legal Entity Control and UK Regulatory Reporting. Mr White has over 18 years of experience in the Financial Services industry, working at institutions such as Tullett & Tokyo, HSBC, and Commerzbank AG. Prior to joining JPMorgan, Mr White worked for the Royal Bank of Scotland and ABN Amro as Head of UK Financial Reporting, and GBM Global Controller Change Director. Mr White is a fellow of the Association of Chartered Certified Accountants, and a member of the Association of Corporate Treasurers.

Louise Atherton-Miller

Mrs Atherton-Miller joined the Board of J.P. Morgan Financial Investments Limited in December 2017. She is currently an Executive Director and is the head of the EMEA Legal Entity Risk Governance Team. Mrs Atherton-Miller has over 33 years' experience in the Financial Services industry, working for several of J.P. Morgan's heritage firms including Manufacturers Hanover Trust Company, Chemical Bank and Chase Manhattan Bank.

John Hobson

Mr Hobson joined the Board of J.P. Morgan Financial Investments Limited in June 2017. He is currently an Executive Director and is the Luxembourg Senior Financial Officer. Prior to his current role, Mr Hobson was the UK Legal Entities Controller. Mr Hobson has over 20 years of Financial Services experience and has also worked for Barclays, the Royal Bank of Scotland and ABN Amro. Mr Hobson is a member of the Association of Chartered Certified Accountants.

Directorships

Members of the Board of Directors have also held internal and/or external directorships during the year ended 31st December 2017 as follows:

Name	Internal Directorships	External directorships
Stephen While	1	0
Louise Atherton-Miller	1	0
John Hobson	1	0

Note: Directorships held within the same group are counted as a single directorship, and those in organisations with non-commercial objectives are disregarded

J.P. Morgan Mansart Management Limited

The JPMMML Board is comprised of three directors. The directors are:

Shahzad Sadique

Mr Sadique joined JPMorgan in 2012, and was appointed as a director and Chief Executive Officer of JPMMML in May of that year. He has over 20 years of experience in the Financial Services industry. Prior to joining J.P. Morgan, he was the Head of Morgan Stanley's structured and alternative fund business within their Investment Bank and was previously the co-Head of the retail structuring team for the multi-asset platform at Dresdner Bank. Mr Sadique began his career at Merrill Lynch in the global equity derivatives group. He holds a Master of Science in International Securities and Investment Banking from the ISMA Centre, University of Reading and a Bachelor of Arts in Financial Economics.

Matthew Melling

Mr Melling joined the Board of JPMMML in May 2014. He is currently a Managing Director and the EMEA Regional Controller. Mr Melling joined JPMorgan in 1996 and has held a number of roles, including EMEA and Global Product Controller for Emerging Markets, and Credit and Emerging Markets Middle Office. He started his career in banking on the NatWest Graduate programme, before moving to Chase Manhattan, a heritage JPMorgan firm. Mr Melling holds a Bachelor of Science in Chemistry from King's College London.

Dale Braithwait

Mr Braithwait joined the Board of JPMMML in March 2014. He is currently the J.P. Morgan group's global lead for Legal Entity Risk and the EMEA Chief Risk Office team. Mr Braithwait is a member of the EMEA Risk Committee and the EMEA Operating Committee. He is also a member of the Eurex Clearing Risk Committee. Mr Braithwait joined J.P. Morgan in 1997 and has held various roles relating to risk management, derivatives clearing, and fund administration, most recently as Global Head of Credit Clearing and Intermediation. During a period from 2003 to 2005, Mr. Braithwait left J.P. Morgan to set-up the Risk, Operations and Finance functions for a fund manager. Mr Braithwait holds a Bachelor of Science in Chemistry from Imperial College, London.

Directorships

Members of the Board of Directors have also held internal and/or external directorships during the year ended 31st December 2017 as follows:

Name	Internal Directorships	External directorships
Shahzad Sadique	1	3
Matthew Melling	1	0
Dale Braithwait	1	1

Note: Directorships held within the same group are counted as a single directorship, and those in organisations with non-commercial objectives are disregarded

Diversity & Inclusion

The UK Entities have a disciplined focus on our workforce, workplace and marketplace - with management accountability as the foundation and element most critical to the ability to hire, train and retain great and diverse employees whose unique perspectives help realise the business objectives. The UK Entities are committed to a culture of openness and meritocracy, and believe in giving every individual an opportunity to succeed while bringing their whole selves to work.

In 2014 we set an internal target to achieve 30% representation of women on certain key boards in EMEA. We continue to make progress towards achieving this target across those boards and conduct a review on an annual basis.

Further information on the Firm's global Diversity and Inclusion strategy is available at: https://www.jpmorgan.com/country/GB/en/emea/crd4

3. Information on the scope of application of the regulatory framework (Article 436)

This section outlines differences between carrying values and regulatory exposure values. Firstly LI1 tables provide linkage of financial statements categories with regulatory risk categories. The row structure represents the same row structure of the balance sheet used in the annual report for 2017. The carrying amounts as reported in published financial statements are allocated to the different risk frameworks. The main sources of differences between carrying amounts as reported in published financial statements and regulatory exposure values are depicted in LI2 tables.

There are no differences between the scope of accounting consolidation and the scope of regulatory consolidation in the reporting entities.

Due to exemptions under Financial Reporting Standard ('FRS') 102, JPMFIL is not required to publish consolidated audited financial statements. Therefore the disclosures below are based on unaudited financial statements.

Table 1: EU LI1 - The mapping of financial statement categories with regulatory risk categories for JPMCHL

	Carrying values as reported in published financial statements	Carrying values of items ($'mm)				
		Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework[6]	Not subject to capital requirements or subject to deduction from capital
Assets						
Cash and balances at central banks	21,793	21,793	—	—	—	—
Cash at bank and in hand	172	172	—	—	—	—
Loans and advances to banks	10,364	10,364	—	—	—	—
Loans and advances to customers	7,891	7,891	—	—	—	—
Securities purchased under resale agreements	139,629	—	139,629	—	—	—
Securities borrowed	26,978	—	26,978	—	—	—
Financial assets held for trading	340,730	—	233,015	—	106,927	1,042
Financial assets designated at fair value through profit or loss	364	311	53	—	—	—
Financial assets available for sale	30	30	—	—	—	—
Subordinated loans	—	—	—	—	—	—
Other assets	80,356	63,134	1,632	—	15,590	—
Prepayments and accrued income	705	705	—	—	—	—
Intangible assets	25	—	—	—	—	25
Goodwill	74	—	—	—	—	74
Investments in JPMorgan Chase undertakings	13	13	—	—	—	—
Tangible fixed assets	10	10	—	—	—	—
Total Assets	629,134	104,423	401,307	—	122,517	1,141
Liabilities						
Deposits by banks	146	—	—	—	—	146
Customer accounts	21,150	—	—	—	—	21,150
Securities sold under agreements to repurchase	74,937	—	74,937	—	—	—
Securities loaned	12,427	—	12,427	—	—	—
Financial liabilities held for trading	308,836	—	241,870	—	66,966	—
Financial liabilities designated at fair value through profit or loss	1,465	—	—	—	—	1,465
Other liabilities	159,884	—	—	—	12,529	147,355
Accruals and deferred income	1,991	—	—	—	—	1,991
Subordinates liabilities	4	—	—	—	—	4
Total liabilities	580,840	—	329,234	—	79,495	172,111

[6] The column represents only values which are subject to specific market risk.

Table 2: EU LI1 - The mapping of financial statement categories with regulatory risk categories for JPMFIL

	Carrying values under scope of regulatory consolidation[7]	Carrying values of items ($'mm)				
		Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
Assets						
Cash at bank and in hand	538	538	0	0	0	0
Debtors	452	438	0	0	14	0
Financial assets held for trading	27	0	23	0	4	0
Financial assets designated at fair value through profit or loss	16	16	0	0	0	0
Securities purchased under agreements to resell	4,414	0	4,414	0	0	0
Total Assets	5,447	992	4,437	0	18	0
Liabilities						
Creditors: amounts falling due within one year	116	0	0	0	1	115
Provisions for liabilities	11	0	0	0	0	11
Taxation	0	0	0	0	0	0
Financial liabilities held for trading	26	0	26	0	0	0
Total liabilities	153	0	26	0	1	126

Table 3: EU LI1 - The mapping of financial statement categories with regulatory risk categories for JPMMML

	Carrying values as reported in published financial statements	Carrying values of items ($'mm)				
		Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
Assets						
Debtors	1	1	—	—	—	—
Cash and cash equivalent	17	17	—	—	—	—
Total Assets	18	18	—	—	—	—
Liabilities						
Creditors	1	—	—	—	—	1
Total liabilities	1	—	—	—	—	1

Table 4: EU LI2 - Main sources of differences between regulatory exposure amounts and carrying values in financial statements for JPMCHL

	Items subject to ($'mm)		
	Credit risk framework	CCR framework	Securitisation framework
Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)	104,423	401,307	—
Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	—	329,234	—
Total net amount under the regulatory scope of consolidation	104,423	72,073	—
Off-balance-sheet amounts	13,167	—	—
Differences due to Potential Future Credit Exposure (PFCE)	—	176,948	—
Differences due to different netting rules	—	53,612	—
Differences due to balance sheet collateral	(40,240)	—	—
Other	547	—	—
Exposures amounts considered for regulatory purposes	77,897	302,632	—

[7] JPMFIL is not required to publish consolidated audited financial statements (exemptions under FRS 102).

Table 5: EU LI2 - Main sources of differences between regulatory exposure amounts and carrying values in financial statements for JMFIL

	Items subject to ($'mm)		
	Credit risk framework	CCR framework	Securitisation framework
Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)	992	4,437	0
Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	0	26	0
Total net amount under the regulatory scope of consolidation	992	4,411	0
Off-balance-sheet amounts	0	0	0
Differences due to Potential Future Credit Exposure (PFCE)	0	9	0
Differences due to different netting rules	0	-2,668	0
Other	(35)	0	0
Exposure amounts considered for regulatory purposes	958	1,753	0

Table 6: EU LI2 - Main sources of differences between regulatory exposure amounts and carrying values in financial statements for JPMMML

	Items subject to ($'mm)		
	Credit risk framework	CCR framework	Securitisation framework
Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)	18	—	—
Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	—	—	—
Total net amount under the regulatory scope of consolidation	18	—	—
Exposures amounts considered for regulatory purposes	18	—	—

Explanations of Differences Between Accounting and Regulatory Exposure Amounts

Off-balance-sheet amounts: Off-balance sheet items are subject to the regulatory framework. The exposures represent values after the application of the relevant credit conversion factors ('CCF').

Difference due to Potential Future Credit Exposure ('PFCE'): In order to determine exposure value for derivatives the PFCE is calculated as per article 274 of the CRR.

Differences due to different netting rules: These differences are due to legally enforceable netting agreements which cannot be applied in the same scope as for accounting framework which allows netting only if legal right of set-off exists and the cash flows are intended to be settled on a net basis. The netting rules also include the effect of Funded Credit Protection in the form of master netting agreements covering repurchase transactions.

Differences due to balance sheet collateral: Exposures amounts considered for regulatory purposes are amounts before application of Credit risk mitigation ('CRM') but after application of regulatory netting requirements. The balance sheet includes collateral amounts, therefore these values need to be excluded.

4. Own Funds (Article 437)

Own Funds Disclosures

Capital resources represent the amount of regulatory capital available to an entity to cover all risks. Defined under the CRR, capital resources are designated into two tiers, Tier 1 and Tier 2. Tier 1 capital consists of Common Equity Tier 1 ('CET1') and Additional Tier 1 ('AT1'). CET1 is the highest quality of capital and typically represents share capital, reserves and audited profit; AT1 contains hybrid debt instruments; Tier 2 capital typically consists of subordinated debt and other eligible capital instruments.

The information represented in the tables below constitutes the applicable data elements for Own Funds identified in Title VII of the Guidelines.

The final column represents the capital position on a fully-phased in basis after all CRR transitional provisions have expired and phase-out of grandfathered capital instruments under pre-CRR national transposition measures is complete. Other capital impacts including instrument maturity or behavioural changes are not considered for the fully-phased in position.

Key Changes During the Period

- **JPMCHL:** As part of the Firm's legal entity rationalisation efforts, management undertook certain steps in September 2017 to simplify the JPMS plc's capital structure. JPMS plc converted preference shares into ordinary shares which resulted in elimination of consolidated AT1 and T2 capital.
- **JPMFIL**: Note that JPMFIL reports the annual Pillar 3 disclosures for the first time therefore a commentary for key changes during the reporting period is not provided. This applies through all sections.
- **JPMMML**: No significant change in the capital structure during 2017.

Table 7: CRDIV Regulatory Capital for JPMCHL

	Transitional Own Funds Funds Discourse Template ($'mm)	Amount at Disclosure Date	Regulation (EU) No 575/2013 Article Reference	Fully-Phased in Position
Common Equity Tier 1 capital: instruments and reserves				
1	Capital instruments and the related share premium accounts	8,081	26 (1), 27, 28, 29, EBA list 26 (3)	8,081
	of which: Ordinary shares	8,081	EBA list 26 (3)	8,081
2	Retained earnings	30,852	26 (1) (c)	30,852
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	9,360	26 (1)	9,360
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	48,293		48,293
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
7	Additional value adjustments (negative amount)	(1,175)	34, 105	(1,175)
8	Intangible assets (net of related tax liability) (negative amount)	(99)	36 (1) (b), 37, 472 (4)	(99)
18	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10 % threshold and net of eligible short positions) (negative amount)	(726)	36 (1) (h), 43, 45, 46, 49 (2) (3), 79, 472 (10)	(726)
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	(2,000)		(2,000)
29	**Common Equity Tier 1 (CET1) capital**	46,293		46,293
Additional Tier 1 (AT1) capital: Instruments				
44	**Additional Tier 1 (AT1) capital**	—		—
45	**Tier 1 capital (T1 = CET1 + AT1)**	46,293		46,293
Tier 2 (T2) capital: instruments and provisions				
51	**Tier 2 (T2) capital before regulatory adjustments**	—		—
Tier 2 (T2) capital: regulatory adjustments				
58	**Tier 2 (T2) capital**	—		—
59	**Total capital (TC = T1 + T2)**	46,293		46,293
60	**Total risk weighted assets**	255,473		255,473
Capital ratios and buffers				
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	18.12%	92 (2) (a), 465	18.12%
62	Tier 1 (as a percentage of total risk exposure amount)	18.12%	92 (2) (b), 465	18.12%
63	Total capital (as a percentage of total risk exposure amount)	18.12%	92 (2) (c)	18.12%

Transitional Own Funds Funds Discourse Template ($'mm)		Amount at Disclosure Date	Regulation (EU) No 575/2013 Article Reference	Fully-Phased in Position
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer (G-SII or O-SII buffer) expressed as a percentage of risk exposure amount)	5.81%	CRD 128, 129, 130	7.06%
65	of which: capital conservation buffer requirement	1.25%		2.50%
66	of which: countercyclical buffer requirement	0.06%		0.06%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	10.12%	CRD 128	10.12%
Amounts below the thresholds for deduction (before risk weighting)				
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	4,386	36 (1) (h), 46, 45, 472 (10), 56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)	4,386
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	465	36 (1) (i), 45, 48, 470, 472 (11)	465
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	169	36 (1) (c), 38, 48, 470, 472 (5)	169

Table 8: CRDIV Regulatory Capital for JPMFIL

Transitional Own Funds Funds Discourse Template ($'mm)		Amount at Disclosure Date	Regulation (EU) No 575/2013 Article Reference	Fully-Phased in Position
Common Equity Tier 1 capital: instruments and reserves				
1	Capital instruments and the related share premium accounts	3	26 (1), 27, 28, 29, EBA list 26 (3)	3
	of which: Ordinary shares	3	EBA list 26 (3)	3
2	Retained earnings	(23)	26 (1) (c)	(23)
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	5,168	26 (1)	5,168
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	5,148		5,148
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
7	Additional value adjustments (negative amount)	(1)	34, 105	(1)
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	(1)		(1)
29	**Common Equity Tier 1 (CET1) capital**	5,146		5,146
Additional Tier 1 (AT1) capital: Instruments				
44	**Additional Tier 1 (AT1) capital**	—		—
45	**Tier 1 capital (T1 = CET1 + AT1)**	5,146		5,146
Tier 2 (T2) capital: instruments and provisions				
58	**Tier 2 (T2) capital**	—		—
59	**Total capital (TC = T1 + T2)**	5,146		5,146
60	**Total risk weighted assets**	608		608
Capital ratios and buffers				
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	846.41%	92 (2) (a), 465	846.41%
62	Tier 1 (as a percentage of total risk exposure amount)	846.41%	92 (2) (b), 465	846.41%
63	Total capital (as a percentage of total risk exposure amount)	846.41%	92 (2) (c)	846.41%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer (G-SII or O-SII buffer) expressed as a percentage of risk exposure amount)	5.75%	CRD 128, 129, 130	7.00%
65	of which: capital conservation buffer requirement	1.25%		2.50%
66	of which: countercyclical buffer requirement	0.00%		0.00%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	838.41%	CRD 128	838.41%

Table 9: CRDIV Regulatory Capital for JPMMML

	$'mm	Amount at Disclosure Date	Regulation (EU) No 575/2013 Article Reference	Fully-Phased in Position
Common Equity Tier 1 capital: instruments and reserves				
1	Capital instruments and the related share premium accounts	25	26 (1), 27, 28, 29, EBA list 26 (3)	25
	of which: Ordinary shares	25	EBA list 26 (3)	25
2	Retained earnings	(8)	26 (1) (c)	(8)
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	—	26 (1)	—
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	17		17
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	—		—
29	**Common Equity Tier 1 (CET1) capital**	17		17
Additional Tier 1 (AT1) capital: Instruments				
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	—		—
44	**Additional Tier 1 (AT1) capital**	—		—
45	**Tier 1 capital (T1 = CET1 + AT1)**	17		17
Tier 2 (T2) capital: instruments and provisions				
58	**Tier 2 (T2) capital**	—		—
59	**Total capital (TC = T1 + T2)**	17		17
60	**Total risk weighted assets**	12		12
Capital ratios and buffers				
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	139.04%	92 (2) (a), 465	139.04%
62	Tier 1 (as a percentage of total risk exposure amount)	139.04%	92 (2) (b), 465	139.04%
63	Total capital (as a percentage of total risk exposure amount)	139.04%	92 (2) (c)	139.04%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer (G-SII or O-SII buffer) expressed as a percentage of risk exposure amount)	5.75%	CRD 128, 129, 130	7.00%
65	of which: capital conservation buffer requirement	1.25%		2.50%
66	of which: countercyclical buffer requirement	0.00%		0.00%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	131.04%	CRD 128	131.04%

Own Funds Reconciliation

The tables below present a reconciliation between audited balance sheet own funds and regulatory own funds as at 31st December 2017 in accordance with the requirements set out in Commission Implementing Regulation (EU) No 1423/2013.

Table 10: Reconciliation of Regulatory Own Funds to Balance Sheet for JPMCHL

Regulatory Own Funds Reconciliation to Balance Sheet	Reference	$'mm
CET1 Capital		
300 Ordinary Shares of £1 each	Accounts Note 31	4,069
Share Premium Account	Accounts Page 34	4,012
Pension Reserve	Accounts Page 34	(79)
Other Reserves	Accounts Page 34	9,439
Retained Earnings	Accounts Page 34	30,852
CET1 Capital - Balance Sheet Own Funds		48,293
Less Regulatory Adjustments		
(-) Intangible Assets Goodwill	Accounts Note 21	(99)
(-) Additional Valuation Adjustments	CRR Article 34	(1,175)
(-) Non significant investments	CRR Article 469	(726)
CET1 Capital - Regulatory Own Funds After Adjustments		46,293
T2 Capital - Regulatory Own Funds After Adjustments		—
Total Regulatory Own Funds		46,293

Table 11: Reconciliation of Regulatory Own Funds to Balance Sheet for JPMFIL

Regulatory Own Funds Reconciliation to Balance Sheet	Reference	$'mm
CET1 Capital		
1,600,002 Ordinary Shares of £1 each		3
Other Reserves		5,168
Retained Earnings		29
CET1 Capital - Balance Sheet Own Funds		5,200
Less Regulatory Adjustments		
(-) Unaudited Profit	CRR Article 26	(53)
(-) Additional Valuation Adjustments	CRR Article 34	(1)
CET1 Capital - Regulatory Own Funds After Adjustments		5,146
Total Regulatory Own Funds		5,146

Table 12: Reconciliation of Regulatory Own Funds to Balance Sheet for JPMMML

Regulatory Own Funds Reconciliation to Balance Sheet	Reference	$'mm
CET1 Capital		
1 Ordinary Share of £1	Accounts Note 14	—
25,000,000 Ordinary Shares of $1 Each	Accounts Note 14	25
Other Reserves	Accounts Page 13	—
Accumulated Losses	Accounts Page 13	(8)
CET1 Capital - Balance Sheet Own Funds		17
CET1 Capital - Regulatory Own Funds After Adjustments		17
Total Regulatory Own Funds		17

Main Features of Capital Instruments

The tables below present the main features of regulatory capital instruments for the in scope entities as at 31st December 2017 required by Commission Implementing Regulation (EU) No 1423/2013. The terms and conditions can be found on the Companies House website.

Table 13: Main Features of Regulatory Capital Instruments

Capital Instruments Main Features		JPMCHL	JPMFIL	JPMMML	
		CET1	CET1	CET1	CET1
		$10 ordinary shares	£1 ordinary shares	£1 ordinary shares	$1 ordinary shares
1	Issuer	JPMCHL	JPMFIL	JPMMML	JPMMML
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	Private Placement	Private Placement	Private Placement	Private Placement
3	Governing law(s) of the instrument	The Companies Act 2006	The Companies Act 2006	The Companies Act 2006	The Companies Act 2006
Regulatory treatment					
4	Transitional CRR rules	Common Equity Tier 1	Common Equity Tier 1	Common Equity Tier 1	Common Equity Tier 1
5	Post-transitional CRR rules	Common Equity Tier 1	Common Equity Tier 1	Common Equity Tier 1	Common Equity Tier 1
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	(sub-)consolidated	(sub-)consolidated	Solo	Solo
7	Instrument type (types to be specified by each jurisdiction)	$ Ordinary	£ Ordinary	£ Ordinary	$ Ordinary
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date). Includes issued paid up share capital and share premium	$8,081 includes nominal and premium	£1.6m	£0m	$25m
9	Nominal amount of instrument	$10	£1	£1	$1
9a	Issue price	average issue price $20	£1	£1	$1
9b	Redemption price	N/A	N/A	N/A	N/A
10	Accounting classification	Shareholders' equity	Shareholders' equity	Shareholders' equity	Shareholders' equity
11	Original date of issuance (issued paid up share capital)	$0.2m Nov 18 1999 $2,000m Jan 25 2000 $959m Nov 2 2000 $1,110m Apr 9 2002 $0.01m Dec 12 2006 $0.01m Mar 7 2007 $0.01m Oct 15 2007	£1.6m March 12 1999	£0.000001m Nov 7 2007	$25m Oct 22 2012
12	Perpetual or dated	Perpetual	Perpetual	Perpetual	Perpetual
13	Original maturity date	No maturity	No maturity	No maturity	No maturity
14	Issuer call subject to prior supervisory approval	No	No	No	No
15	Optional call date, contingent call dates and redemption amount	N/A	N/A	N/A	N/A
16	Subsequent call dates, if applicable	N/A	N/A	N/A	N/A
Coupons / dividends					
17	Fixed or floating dividend/coupon	N/A	N/A	N/A	N/A
18	Coupon rate and any related index	N/A	N/A	N/A	N/A
19	Existence of a dividend stopper	No	No	No	No

Capital Instruments Main Features		JPMCHL	JPMFIL	JPMMML	
		CET1	CET1	CET1	CET1
		$10 ordinary shares	£1 ordinary shares	£1 ordinary shares	$1 ordinary shares
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Full discretionary	Full discretionary	Full discretionary	Full discretionary
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Full discretionary	Full discretionary	Full discretionary	Full discretionary
21	Existence of step up or other incentive to redeem	No	No	No	No
22	Noncumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A	N/A	N/A	N/A
25	If convertible, fully or partially	N/A	N/A	N/A	N/A
26	If convertible, conversion rate	N/A	N/A	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A	N/A
30	Write-down features	N/A	N/A	N/A	N/A
31	If write-down, write-down trigger(s)	N/A	N/A	N/A	N/A
32	If write-down, full or partial	N/A	N/A	N/A	N/A
33	If write-down, permanent or temporary	N/A	N/A	N/A	N/A
34	If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	One class of share & same rights attached to all shares	One class of share & same rights attached to all shares	Ranks pari passu	Ranks pari passu
36	Non-compliant transitioned features	No	No	No	No
37	If yes, specify non-compliant features	N/A	N/A	N/A	N/A

5. Capital Requirements (Article 438)

A strong capital position is essential to the Firm's business strategy and competitive position. The Firm's capital strategy focuses on long-term stability, which enables the Firm to build and invest in market-leading businesses, even in a highly stressed environment.

Internal Capital Adequacy Assessment Process

The entities in scope complete an ICAAP on a periodic basis, which provides management with a view of the impact of severe and unexpected events on earnings, risk-weighted assets and capital. The Firm's ICAAP integrates stress testing protocols with capital planning. The process assesses the potential impact of alternative economic and business scenarios on the Firm'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, realized events can always be worse. Accordingly, management considers additional stresses outside these scenarios, as necessary. ICAAP results are reviewed by management and the relevant Board of Directors.

Key Changes during the Period

- **JPMCHL**:
  - Internal models (IMA) were introduced in June 2017 to calculate market risk capital requirements. Previously all market risk capital requirements were calculated using the standardised approach.
  - The increase in market risk capital requirements is driven by an increase in equity risk, across various exotic desks, due to legal entity reorganisation and consolidation of risk into JPMS plc.
  - Credit counterparty risk increased primarily due to increased business activity in Derivatives and SFTs.
  - A decrease in risk exposure amount for contributions to the default fund of a CPP is driven by a change in calculation methodology from Article 310 to Articles 306 and 308 of the CRR

- **JPMMML**:
  - No significant change in RWAs in 2017

Minimum Capital Requirements

The tables below present minimum capital requirements for JPMCHL, JPMFIL and JPMMML.

The standardised approach has been used for the calculation of Credit Risk and Credit Counterparty Risk Capital Requirements. Market Risk Capital Requirements have been measured by using a combination of the standardised approach and internal models including Value-at-Risk (VaR) approved by the PRA. The Basic Indicator Approach ('BIA') has been used for the calculation of Operational Risk Capital Requirements. Operational Risk for the limited licence firm's JPML and JPMMML are captured under the Fixed Overheads Requirement. The minimum capital requirement under the Fixed Overheads approach is calculated as the higher of the Fixed Overheads Requirement and the sum of market risk, credit risk and other Pillar 1 capital requirements. The minimum capital requirements below represent the Pillar 1 requirements as per the CRR. They do not include additional minimum requirements set out by the PRA or FCA as part of the firm's Individual Capital Guidance ('ICG'). In accordance with PRA Supervisory Statement SS31/15, the firm is not required to disclose its ICG.

Table 14: EU OV1 - Overview of RWAs for JPMCHL

$'mm			RWA		Minimum capital requirements
			Q4 2017	Q4 2016	
	1	**Credit risk (excluding CCR)**	32,805	32,707	2,625
Article 438(c)(d)	2	Of which the standardised approach	32,805	32,707	2,625
Article 107 and Article 438(c)(d)	6	**CCR**	121,113	102,666	9,689
Article 438(c)(d)	7	Of which mark to market	59,914	50,114	4,793
Article 438(c)(d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	84	1,604	7
Article 438(c)(d)	12	Of which CVA	30,109	30,218	2,409
Article 438(e)	13	**Settlement risk**	654	337	52
Article 438(e)	19	**Market risk**	84,477	58,076	6,758
	20	Of which the standardised approach	77,666	58,076	6,213
	21	Of which IMA	6,811	—	545
Article 438(f)	23	**Operational risk**	15,956	15,134	1,277
	24	Of which basic indicator approach	15,956	15,134	1,277
Article 437(2), Article 48 and Article 60	27	**Amounts below the thresholds for deduction (subject to 250% risk weight)**	468	473	37
	29	**Total**	255,473	209,393	20,438

Table 15: EU OV1 - Overview of RWAs for JPMFIL

$'mm			RWA		Minimum capital requirements
			Q4 2017	Q4 2016[8]	
	1	**Credit risk (excluding CCR)**	480	N/A	38
Article 438(c)(d)	2	Of which the standardised approach	480	N/A	38
Article 107 and Article 438(c)(d)	6	**CCR**	36	N/A	3
Article 438(c)(d)	7	Of which mark to market	16	N/A	1
Article 438(c)(d)	12	Of which CVA	15	N/A	1
Article 438 (e)	19	**Market risk**	17	N/A	1
	20	Of which the standardised approach	17	N/A	1
Article 438(f)	23	**Operational risk**	75	N/A	6
	24	Of which basic indicator approach	75	N/A	6
	29	**Total**	608	N/A	48

Table 16: EU OV1 - Overview of RWAs for JPMMML [9]

$'mm			RWA		Minimum capital requirements
			Q4 2017	Q4 2016	
	1	**Credit risk (excluding CCR)**	5	5	1
Article 438(c)(d)	2	Of which the standardised approach	5	5	—
	29	**Total**	5	5	1

The table below shows a breakdown of the minimum capital requirements for Credit Risk (including Counterparty Credit Risk) by exposure class.

Table 17: EU OV1 additional - Overview of RWAs by exposure class

Exposure classes ($'mm)		JPMCHL		JPMFIL		JPMMML	
		RWA	Capital requirement	RWA	Capital requirement	RWA	Capital requirement
1	Central governments or central banks	1,630	130	12	1	—	—
2	Regional governments or local authorities	1	—	—	—	—	—
3	Public sector entities	75	6	—	—	—	—
4	Multilateral Development Banks	60	5	—	—	—	—
5	International Organisations	—	—	—	—	—	—
6	Institutions	28,583	2,287	360	29	3	1
7	Corporates	67,681	5,415	106	8	—	—
9	Secured by mortgages on immovable property	858	68	—	—	—	—
10	Exposures in default	242	19	—	—	—	—
11	Items associated with particularly high risk	24,223	1,938	—	—	—	—
15	Equity exposures	211	17	11	1	—	—
16	Other exposures	629	50	13	1	2	—
17	**Total**	124,193	9,935	502	40	5	1

[8] JPMFIL reports the annual Pillar 3 disclosure report for the first time therefore the previous reporting period is not stated.
[9] The additional risk exposure amount due to fixed overheads is $7mm. Therefore the total RWAs amount is $12mm.

6. Exposure to Counterparty Credit Risk (Article 439)

Internal Capital and Credit Limits for Counterparty Credit Exposures

The Firm expresses counterparty credit exposure using the several measures of potential future exposure using Monte-Carlo methods. Monte-Carlo simulation models generate mark-to-market distributions for a portfolio of financial instruments under various future market states. This calculation takes into account the effects of credit risk mitigants, such as close-out netting and collateral agreements.

To capture the potential future variability of credit exposure, the Firm calculates, on a client-by-client basis, three measures of potential derivatives-related credit loss: Peak, Derivative Risk Equivalent ('DRE'), and Average exposure ('AVG'). These measures all incorporate netting and collateral benefits, where applicable.

Peak represents a conservative measure of potential exposure to a counterparty calculated in a manner that is broadly equivalent to a 97.5% confidence level over the life of the transaction. Peak is the primary measure used by the Firm for setting of credit limits for derivative transactions, senior management reporting and derivatives exposure management. DRE exposure is a measure that expresses the risk of derivative exposure on a basis intended to be equivalent to the risk of loan exposures. DRE is a less extreme measure of potential credit loss than Peak and is used for aggregating derivative credit risk exposures with loans and other credit risk. Finally, AVG is a measure of the expected fair value of the Firm's derivative receivables at future time periods, including the benefit of collateral. AVG exposure over the total life of the derivative contract is used as the primary metric for pricing purposes and is used to calculate credit risk capital and the CVA.

CVA is based on the Firm's AVG to counterparty and the counterparty's credit spread in the credit derivatives market. The Firm believes that active risk management is essential to controlling the dynamic credit risk in the derivatives portfolio. In addition, the Firm's risk management process takes into consideration the potential JPMorgan Chase & Co./2017 Annual Report 115 impact of wrong-way risk, which is broadly defined as the potential for increased correlation between the Firm's exposure to a counterparty (AVG) and the counterparty's credit quality. Many factors may influence the nature and magnitude of these correlations over time. To the extent that these correlations are identified, the Firm may adjust the CVA associated with that counterparty's AVG. The Firm risk manages exposure to changes in CVA by entering into credit derivative transactions, as well as interest rate, foreign exchange, equity and commodity derivative transactions.

For securities financing transactions ('SFT'), the Firm uses Securities Risk Equivalent, a measure conceptually close to DRE.

In order to assess the internal credit capital required to support its business in the event of unexpected credit losses, the Firm uses Economic Capital. To compute Economic Capital, the loss distribution for the wholesale portfolio is calculated by running Monte-Carlo simulations using J.P. Morgan's Proprietary Capital Model with a one-year horizon. The principal drivers of portfolio capital are:

- The risk characteristics of individual exposures; and
- The correlations among different borrowers.

Portfolio capital is allocated to each exposure using a formula based on the exposure's Risk Grade, Probability of Default ('PD'), Loss Given Default ('LGD'), Loan Equivalent exposure amount, and tenor.

Policies for Securing Collateral and Establishing Credit Reserves

Entities in scope are covered by firmwide policies relating to the type of acceptable collateral posted in support of all forms of credit exposure. Cash and certain high quality bonds are generally considered acceptable collateral.

The receipt of collateral to secure credit exposures is reflected through the LGD estimate at the facility level for traditional credit products and through the expected exposure estimate for Over the Counter ('OTC') derivatives and repo-style transactions. The existence of guarantees is reflected in the internal risk grade assigned to the exposure, if the guarantee meets certain documentation standards and provides acceptable coverage of the obligor's indebtedness and economic and political risks. To address residual risk related to collateral and guarantees, the Firm has instituted policies to assess and monitor the enforceability and effectiveness of these credit risk mitigants.

Wrong-Way Risk Policies

The firm may be exposed to additional credit risk as a result of the wrong way nature of certain OTC derivatives, Cleared Derivatives and securities financing trades, or the wrong way nature of collateral taken against these trades. Accordingly J.P. Morgan has established a credit policy that defines the CIB governance framework and additional controls to cover specific and general wrong way risk. Specific wrong-way OTC derivatives and securities financing trades have conservative credit exposure assigned which would lead to higher CVA and economic credit capital being much higher than for unrelated trades.

Impact of Credit Rating Downgrade

The impact of a downgrade in the Firm's credit rating is considered in the JPMorgan Chase & Co. SEC 10-K filing, at a firmwide level. Credit rating downgrade analysis is incorporated within the liquidity risk metrics for JPMCHL's key entities.

The following table shows the potential impact of a single-notch and two-notch downgrade of the long-term credit rating of JPMS plc, at 31st December 2017, related to OTC derivative contracts with contingent collateral or termination features that may be triggered

upon a ratings downgrade. Derivatives contracts generally require additional collateral to be posted or terminations to be triggered when the predefined threshold rating is breached:

Table 18: Impact of credit rating downgrade on collateral

$'mm	Single-notch downgrade	Two-notch downgrade
Non-cumulative outflow	32	131

Counterparty Credit Risk Analysis

The table below shows counterparty credit risk exposures (excluding trades cleared through a CCP) by methods used to calculate CRR regulatory requirements. Counterparty credit risk exposures are calculated under the standardised approaches set out in the CRR. All derivative exposures are calculated using the Mark to Market method (CRR Article 274) and SFTs using the Financial Collateral Comprehensive Method ('FCCM') (CRR Article 223). Long settlement transactions are treated under the FCCM method.

Table 19: EU CCR1 - Analysis of CRR exposure by approach for JPMCHL

	$'mm	Replacement cost/current market value	Potential future credit exposures	EAD post CRM	RWAs
1	Mark to market[10]	59,484	144,346	95,890	58,941
9	Financial collateral comprehensive method (for SFTs)			43,460	30,919
11	**Total**				**89,860**

Table 20: EU CCR1 - Analysis of CRR exposure by approach for JPMFIL

	$'mm	Replacement cost/current market value	Potential future credit exposures	EAD post CRM	RWAs
1	Mark to market	24	9	33	16
9	Financial collateral comprehensive method (for SFTs)			24	5
11	**Total**				**21**

The following table represents an overview of the impact of netting and collateral held on exposures for derivatives (including long settlement transactions) and SFTs. The collateral held includes supervisory volatility adjustments.

Table 21: EU CCR5-A - Impact of netting and collateral held on exposure values for JPMCHL[11]

$'mm	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives[12]	233,068	(157,563)	75,505	(75,505)	—
Additional collateral held against PFCE				(32,435)	
SFTs subject to a netting agreement	337,819	(203,870)	133,949	(86,986)	46,963
SFTs not subject to a netting agreement	3,216	—	3,216	(2,320)	896
Non-eligible collateral under the CRR[13]				(10,781)	
Total	574,103	(361,433)	212,670	(164,811)	47,859

Table 22: EU CCR5-A - Impact of netting and collateral held on exposure values for JPMFIL

$'mm	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	25	(1)	24	—	24
SFTs subject to a netting agreement	2,715	—	2,715	(2,695)	20
SFTs not subject to a netting agreement	1,699	—	1,699	(1,696)	3
Total	4,439	(1)	4,438	(4,391)	47

[10] The semi-annual disclosure report inadvertently included trades cleared through CCPs within EAD post CRM and RWAs. This has been rectified in the annual disclosure report.
[11] Revised interpretation has been applied to the table. Derivatives exclude PFCE and netting benefits within SFTs represent reduction in net carrying amount due to netting agreements.
[12] The prudent valuation adjustments are deducted from the regulatory capital but they are not used to calculate the derivative credit exposure, therefore the balances represent values before the application of the prudent valuation adjustments.
[13] Non-eligible collateral does not include supervisory volatility adjustments.

Collateral Used in Counterparty Credit Risk

The breakdown of all types collateral posted or received by JPMCHL and JPMFIL to mitigate CCR exposure to derivatives and SFTs is shown in the tables below. As at December 31st 2017, the majority of collateral used was in cash while the rest was in equities and high quality bonds.

Table 23: EU CCR5-B - Composition of collateral for exposures to CCR for JPMCHL[14]

$'mm	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
Cash	—	114,182	—	47,715	85,548	14,427
Debt securities (Central Governments)	—	1,752	—	7	—	5,908
Debt securities (Corporates)	103	15,001	—	3,508	3,048	8,028
Debt securities (Institutions)	2,429	6,251	—	11,351	6,854	4,588
Equities	—	288	—	1	20,370	32,196
Convertible securities	—	—	—	170	1,104	278
CIUs	—	—	—	—	908	479
Other	—	1	—	—	4	51
Total	2,532	137,475	—	62,752	117,836	65,955

Table 24: EU CCR5-B - Composition of collateral for exposures to CCR for JPMFIL

$'mm	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
Cash	—	—	—	1	85	—
Debt securities (Central Governments)	—	—	—	—	1,605	—
Debt securities (Corporates)	—	—	—	—	2,822	—
Debt securities (Institutions)	—	—	—	—	184	—
Equities	—	—	—	—	—	—
Convertible securities	—	—	—	—	—	—
CIUs	—	—	—	—	—	—
Other	—	—	—	—	—	—
Total	—	—	—	—	4,696	—

CVA Capital Charge

The exposure value and associated RWAs subject to CVA capital charges are calculated according to the Standardised method as prescribed in Article 384 of CRR.

Table 25: EU CCR2 - CVA capital charge

	$'mm	JPMCHL		JPMFIL	
		Exposure value	RWA	Exposure value	RWA
4	All portfolios subject to the standardised method	51,286	30,109	23	15
5	Total subject to the CVA capital charge	51,286	30,109	23	15

[14]The table includes both eligible and non-eligible collateral before application of supervisory volatility adjustments.

Exposure to CCPs

The following table shows a comprehensive picture of JPMCHL's exposures to CCPs. JPMCHL does not have any exposure to non-QCCPs . The exposure amount for default funds contributions is calculated as per Article 308 of CRR. JPMFIL and JPMMML do not clear via CCPs.

Table 26: EU CCR8 - Exposures to CCPs

	$'mm	EAD post CRM	RWAs
1	**Exposures to QCCPs (total)**		1,293
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	58,660	1,173
3	(i) OTC derivatives	21,523	430
4	(ii) Exchange-traded derivatives	32,737	655
5	(iii) SFTs	4,399	88
7	Segregated initial margin	—	
8	Non-segregated initial margin	1,795	36
9	Prefunded default fund contributions	1,031	84
11	**Exposures to non-QCCPs (total)**		—

Credit Derivatives Breakdown

The table below presents a breakdown of credit derivatives notionals for JPMCHL by product type and whether they are held for client intermediation (other credit derivatives) or for the firm's own portfolio (credit derivative hedges). The firm makes limited use of credit derivatives hedges for the purpose of credit risk mitigation as disclosed in Section 18. Credit derivatives trading activity is only carried out within the JPMS plc and JPMIB which consolidate to JPMCHL.

Table 27: EU CCR6 - Credit derivatives exposures for JPMCHL

$'mm	Credit derivative hedges		Other credit derivatives
	Protection bought	Protection sold	
Notionals			
Credit default swaps	—	—	608,148
Total return swaps	24,328	—	5,827
Total notionals	24,328	—	613,975
Fair values			
Positive fair value (asset)	—	—	1,432
Negative fair value (liability)	(7,515)	—	(2,941)

7. Countercyclical Capital Buffers (Article 440)

Under Basel III, each firm is required to hold an additional capital buffer against macroeconomic risks associated with an increase in aggregate credit. Each firm is required to calculate its institution-specific countercyclical buffer rate as a weighted average of the buffer rates that have been set for each jurisdiction to which the firm has relevant credit exposures. The countercyclical buffer is then the institution-specific countercyclical buffer rate multiplied by total RWA.

The tables below show a breakdown of the geographic distribution of relevant credit exposures along with the calculation of the institution-specific countercyclical capital buffer as per Commission Delegated Regulation (EU) 2015/1555. There are no banking securitisation exposures and therefore no relevant credit exposures arising from banking book securitisation exposures are shown below.

All of JPMMML's relevant credit exposures are to the United Kingdom and therefore the geographic distribution of JPMMML's exposures is not disclosed in the tables below.

Table 28: Geographic Distribution of Credit Exposures Relevant to the Calculation of the Countercyclical Capital Buffer for JPMCHL

Breakdown by country ($'mm)	General credit exposures	Trading book exposure		Own funds requirements			Own funds requirement weights	Countercyclical capital buffer rate
	Exposure value for SA	Sum of long and short position of trading book	Value of trading book exposure for internal models	Of which: General credit exposures	Of which: Trading book exposures	Total		
Cayman Islands	14,409	1,034	—	1,659	109	1,768	17.25%	0.000%
United Kingdom	27,208	3,692	1	879	443	1,322	12.89%	0.000%
United States of America	12,625	1,126	—	875	329	1,204	11.74%	0.000%
Luxembourg	7,285	838	—	632	107	740	7.22%	0.000%
France	12,764	906	—	384	148	532	5.19%	0.000%
Federal Republic of Germany	2,924	1,008	—	205	244	449	4.38%	0.000%
Kingdom of the Netherlands	3,285	1,277	—	261	172	433	4.22%	0.000%
Ireland	3,113	590	—	268	165	432	4.22%	0.000%
Italy	3,717	317	—	280	51	331	3.23%	0.000%
Spain	3,279	315	—	222	106	329	3.21%	0.000%
Republic of Singapore	2,660	132	—	217	18	236	2.30%	0.000%
Japan	1,208	171	—	97	130	227	2.21%	0.000%
British Virgin Islands	1,540	486	—	165	34	199	1.94%	0.000%
Sweden	2,198	225	—	124	16	139	1.36%	2.000%
Hong Kong	1,400	137	—	112	25	137	1.33%	1.250%
Jersey	1,338	237	—	109	24	133	1.30%	0.000%
Switzerland	1,408	12	—	95	37	132	1.29%	0.000%
Republic of South Africa	113	180	—	9	111	120	1.17%	0.000%
Other Countries (Own funds requirements <1%)	11,221	3,100	—	850	541	1,390	13.56%	various[15]
Total	113,695	15,783	1	7,443	2,810	10,253	100%	

[15] Norway 2%; Iceland 1.25%; Czech Republic 0.5%; Slovakia 0.5%

Table 29: Geographic Distribution of Credit Exposures Relevant to the Calculation of the Countercyclical Capital Buffer for JPMFIL

Breakdown by country ($'mm)	General credit exposures	Trading book exposure		Own funds requirements			Own funds requirement weights	Countercyclical capital buffer rate
	Exposure value for SA	Sum of long and short position of trading book	Value of trading book exposure for internal models	Of which: General credit exposures	Of which: Trading book exposures	Total		
United Kingdom	104	—	—	9	—	9	87.83%	0.000%
United States of America	14	—	—	1	—	1	12.03%	0.000%
Other Countries (Own funds requirements <1%)	1	—	—	—	—	—	0.14%	0.000%
Total	119	—	—	10	—	10	100.00%	

Table 30: Amount of Institution-Specific Countercyclical Capital Buffer

$'mm	JPMCHL	JPMFIL	JPMMML
Total Risk Exposure Amount	255,473	608	12
Institution Specific Countercyclical Buffer Rate	0.056%	0.000%	0.000%
Institution Specific Countercyclical Buffer Requirement	143	—	—

8. Credit Risk Adjustments (Article 442)

Definitions

The following definitions are used for accounting purposes:

- **Impairment of financial assets:** Impairment losses on loans and receivables are measured as the difference between the financial assets carrying amount and the present value of the estimated future cash flows discounted at the financial asset's effective interest rate.

- **Impairment of non-financial assets:** An impairment loss is recognized 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).

- **Past due:** A financial asset is past due when a counterparty has failed to make a payment when contractually due.

Credit Risk Adjustments for Loan Assets

The firm assesses at each balance sheet date whether there is any objective evidence that a financial asset or group of financial assets is impaired. A financial asset or portfolio of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset and that loss event has an adverse impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

Impairment losses on loans are measured as the difference between the financial assets carrying amount and the present value of the estimated future cash flows discounted at the financial assets effective interest rate. The loss is recognised in the income statement against the carrying amount of the impaired asset on the balance sheet. Interest continues to be accrued on the reduced carrying amount based on the original effective interest rate of the financial asset.

Specific provisions are raised against loans and advances to customers when the firm considers that the credit worthiness of the borrower has deteriorated such that the recovery of the whole or part of an outstanding advance is in serious doubt. Impairment provisions are also raised to cover losses which, although not specifically identified, are known from experience to have occurred in the portfolio of loans and advances to customers at the balance sheet date. Impairment provisions are determined by modelling the current exposure, taking into account such factors as duration and probabilities of default.

Credit Risk Adjustments for Derivatives

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 firm, 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 firm by JPMorgan Chase Bank N.A., and therefore the firm takes account of these arrangements in estimating the fair value of its derivative portfolio.

The following analysis for credit exposures is only provided for material exposure classes or industries exceeding 5% of the total net value. All other exposure classes or industries are included under 'Other residual exposure'. Exposure class 'Exposure in default' is only shown as its original exposure class. JPMMML's capital requirement for credit risk (including counterparty risk) is $384k and therefore additional disclosures have not been made throughout section 8.

All tables in this section do not include counterparty credit risk.

Net and Average Exposures

Net values of on-balance sheet and off-balance exposures are depicted in the tables below. The net value is gross carrying value of exposure less impairments or provisions. The firm has calculated average exposure based on the average of the four quarter end points during the year.

Table 31: EU CRB-B - Total and average net amount of exposures for JPMCHL

Exposure class ($'mm)		JPMCHL	
		Net exposure at the end of the period	Average net exposure over the period
1	Central governments or central banks	22,873	19,233
2	Institutions	25,827	21,227
3	Corporates	37,772	32,594
4	Other Residual Exposure	2,388	2,961
5	**Total standardised approach**	88,860	76,015

Table 32: EU CRB-B - Total and average net amount of exposures for JPMFIL

Exposure class ($'mm)		JPMFIL	
		Net exposure at the end of the period	Average net exposure over the period[16]
1	Institutions	830	832
2	Corporates	104	111
3	Other Residual Exposure	24	27
4	**Total standardised approach**	958	970

[16]The first available quarter end point for JPMFIL was September 2017, thus only two quarter end points were taken to calculate the average exposure.

Exposure Class Analysis by Geographical Areas

The tables below provide a breakdown of net credit risk exposures (i.e. net values of on-balance sheet and off-balance sheet exposures before credit risk mitigation) by country. Other geographical areas includes multilateral development banks and international organisations which operate across multiple regions. The analysis is provided for countries exceeding 2.5% of the total net value.

Table 33: EU CRB-C - Geographical breakdown of exposures for JPMCHL

	Exposure class ($'mm)	Net Value												
		EMEA	Federal Republic of Germany	United Kingdom	Luxembourg	France	Spain	Other Countries in EMEA (Residual Exposure)	AMERICA	United States of America	Other Countries in AMERICA (Residual Exposure)	APAC	Other Geographical Areas	Total
1	Central governments or central banks	**22,856**	21,712	261	—	69	—	814	**3**	—	3	**14**	**—**	22,873
2	Institutions	**8,332**	2,433	3,222	18	43	825	1,791	**12,492**	10,727	1,765	**5,003**	**—**	25,827
3	Corporates	**27,041**	691	2,498	4,779	4,328	3,048	11,697	**10,525**	8,790	1,735	**206**	**—**	37,772
4	Other Residual Exposure	**878**	2	432	—	43	12	389	**1,470**	867	603	**39**	**1**	2,388
5	**Total standardised approach**	**59,107**	**24,838**	**6,413**	**4,797**	**4,483**	**3,885**	**14,691**	**24,490**	**20,384**	**4,106**	**5,262**	**1**	**88,860**

Table 34: EU CRB-C - Geographical breakdown of exposures for JPMFIL

	Exposure class ($'mm)	Net Value					
		EMEA	United Kingdom	Other Countries in EMEA (Residual Exposure)	AMERICA	United States of America	Total
1	Institutions	**201**	200	1	**629**	629	830
2	Corporates	**103**	102	1	**1**	1	104
3	Others (Residual Exposure)	**11**	11	—	**13**	13	24
4	**Total standardised approach**	**315**	**313**	**2**	**643**	**643**	958

Concentration Analysis of Credit Risk Exposures

As it is depicted in tables below the majority of credit risk exposures is concentrated in the finance industry.

Table 35: EU CRB-D - Concentration of exposures by industry or counterparty types for JPMCHL

	Exposure class ($'mm)	Finance Industry	Manufacturing	Transport, Utilities and storage	Other Residual Exposure	Total
1	Central governments or central banks	21,927	—	—	946	22,873
2	Institutions	24,500	—	—	1,327	25,827
3	Corporates	15,655	7,979	5,353	8,785	37,772
4	Other Residual Exposure	1,680	—	—	708	2,388
5	**Total standardised approach**	63,762	7,979	5,353	11,766	88,860

Table 36: EU CRB-D - Concentration of exposures by industry or counterparty types for JPMFIL

	Exposure class ($'mm)	Finance Industry	Total
1	Institutions	830	830
2	Corporates	104	104
3	Other Residual Exposure	24	24
4	**Total standardised approach**	958	958

Residual Maturity Analysis of Credit Risk Exposures

The tables below show net values of on-balance sheet exposures without taking into account the effects of credit risk mitigation broken down by exposure class and residual maturity. Residual maturity is the remaining number of years before an obligation becomes due according to the existing terms of agreement.

Table 37: EU CRB-E - Maturity of exposures for JPMCHL

	Exposure class ($'mm)	Net exposures					
		On Demand	< = 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
1	Central governments or central banks	93	22,522	—	—	258	22,873
2	Institutions	703	23,392	11	—	1,415	25,521
3	Corporates	39	9,503	3,690	50	892	14,174
4	Other Residual Exposure	—	758	641	21	763	2,183
5	**Total standardised approach**	835	56,175	4,342	71	3,328	64,751

Table 38: EU CRB-E - Maturity of exposures for JPMFIL

	Exposure class ($'mm)	Net exposure value					
		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
1	Institutions	—	19	—	—	811	830
2	Corporates	—	103	—	—	1	104
3	Other Residual Exposure	—	—	—	—	24	24
4	**Total standardised approach**	—	122	—	—	836	958

Analysis of Credit Exposures

The tables below show defaulted and non-defaulted exposures before credit risk mitigation broken down by exposure class and associated credit risk adjustments. Credit risk adjustments arising from loan loss provisions which are individually immaterial are not used to reduce the exposure value. This is consistent with the CoRep submission.

Table 39: EU CR1-A - Credit quality of exposures by exposure class and instrument for JPMCHL

	Exposure class ($'mm)	a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Central governments or central banks	—	22,873	—	—	—	—	22,873
2	Institutions	—	25,827	—	—	—	—	25,827
3	Corporates	399	37,510	137	—	—	137	37,772
4	Other Residual Exposure	—	2,388	—	—	—	—	2,388
5	Total standardised approach	399	88,598	137	—	—	137	88,860
6	**Total**	**399**	**88,598**	**137**	**—**	**—**	**137**	**88,860**
7	Of which: Loans	339	16,467	116	—	—	116	16,689
8	*Of which: Debt securities*	—	39	—	—	—	—	39
9	Of which: Off-balance-sheet exposures	60	24,069	21	—	—	21	24,108

Table 40: EU CR1-A - Credit quality of exposures by exposure class and instrument for JPMFIL

	Exposure class ($'mm)	a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Institutions	—	830	—	—	—	—	830
2	Corporates	—	104	—	—	—	—	104
3	Other Residual Exposure	—	24	—	—	—	—	24
4	Total standardised approach	—	958	—	—	—	—	958
5	**Total**	**—**	**958**	**—**	**—**	**—**	**—**	**958**
6	Of which: Loans	—	102	—	—	—	—	102

Industry Analysis of Credit Risk Exposures

The tables below present an analysis of credit quality of on-balance sheet and off-balance sheet exposures before credit risk mitigation by industry sector and associated credit risk adjustments.

Table 41: EU CR1-B - Credit quality of exposures by industry or counterparty types for JPMCHL

	Industry sector ($'mm)	a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Finance Industry	—	63,762	—	—	—	—	63,762
2	Manufacturing	—	7,979	—	—	—	—	7,979
3	Transport and storage	—	5,353	—	—	—	—	5,353
4	Other Residual Exposure	399	11,504	137	—	—	137	11,766
5	**Total**	**399**	**88,598**	**137**	**—**	**—**	**137**	**88,860**

Table 42: EU CR1-B - Credit quality of exposures by industry or counterparty types for JPMFIL

	Industry sector ($'mm)	a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Finance Industry	—	958	—	—	—	—	958
2	**Total**	**—**	**958**	**—**	**—**	**—**	**—**	**958**

Geographical Location of Exposures

The tables below show credit exposures before credit risk mitigation broken down by geographic location. Other geographical areas includes multilateral development banks and international organisations which operate across multiple regions. The analysis is provided for countries exceeding 2.5% of the total net value.

Table 43: EU CR1-C - Credit quality of exposures by geography for JPMCHL

	Country ($'mm)	a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	**EMEA**	**399**	**58,845**	**137**	**—**	**—**	**137**	**59,107**
2	Federal Republic of Germany	—	24,838	—	—	—	—	24,838
3	United Kingdom	—	6,413	—	—	—	—	6,413
4	Luxembourg	—	4,797	—	—	—	—	4,797
5	France	—	4,483	—	—	—	—	4,483
6	Spain	—	3,885	—	—	—	—	3,885
7	Other Countries in EMEA (Residual Exposure)	399	14,429	137	—	—	137	14,691
8	**AMERICA**	**—**	**24,490**	**—**	**—**	**—**	**—**	**24,490**
9	United States of America	—	20,384	—	—	—	—	20,384
10	Other Countries in AMERICA (Residual Exposure)	—	4,106	—	—	—	—	4,106
11	**APAC**	**—**	**5,262**	**—**	**—**	**—**	**—**	**5,262**
12	**Other Geographical Areas**	**—**	**1**	**—**	**—**	**—**	**—**	**1**
13	**Total**	**399**	**88,598**	**137**	**—**	**—**	**137**	**88,860**

Table 44: EU CR1-C - Credit quality of exposures by geography for JPMFIL

	Country ($'mm)	a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	**EMEA**	**—**	**315**	**—**	**—**	**—**	**—**	**315**
2	United Kingdom	—	313	—	—	—	—	313
3	Other Countries in EMEA (Residual Exposure)	—	2	—	—	—	—	2
4	**AMERICA**	**—**	**643**	**—**	**—**	**—**	**—**	**643**
5	United States of America	—	643	—	—	—	—	643
6	**Total**	**—**	**958**	**—**	**—**	**—**	**—**	**958**

Non-performing and Forborne Exposures

The following tables provide an overview of non-performing and forborne exposures in JPMCHL as per the Commision Implementing regulation (EU) No 680/2017. No exposure was forborne as at 31st December 2017. There was no forborne or non-performing exposure in JPMFIL.

Table 45: EU CR1-E - Non-performing and forborne exposures for JPMCHL

$'mm		Gross carrying amount of performing and non-performing exposures							Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
			Of which performing but past due > 30 days	Of which performing forborne	Of which non-performing				On performing exposures		On non-performing exposures		On non-performing exposures	Of which forborne exposures
						Of which defaulted	Of which impaired	Of which forborne		Of which forborne		Of which forborne		
010	Debt securities	39	—	—	—	—	—	—	—	—	—	—	—	—
020	Loans and advances	16,806	—	—	339	339	116	—	—	—	116	—	—	—
030	Off-balance-sheet exposures	24,129	—	—	60	60	21	—	—	—	21	—	—	—

Credit Risk Adjustments

No credit risk adjustment was made in JPMFIL and JPMMML in the reporting period. The specific credit risk adjustments of £137m, made in JPCHL plc, relates to loans to corporate customers.

Table 46: EU CR2-A - Changes in the stock of general and specific credit risk adjustments

		JPMCHL
		Accumulated specific credit risk adjustment ($mm)
1	**Opening balance 1st January 2017**	—
2	Increases due to amounts set aside for estimated loan losses during the period	137
9	**Closing balance 31st December 2017**	137
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	116

Defaulted and Impaired Exposures

The table below presents changes in defaulted or impaired loans and debt securities during 2017 in JPMCHL. The defaulted exposure of £339m represents loans made to corporate customers. No defaulted exposure has been reported in JPMFIL and JPMMML.

Table 47: EU CR2-B - Changes in the stock of defaulted and impaired loans and debt securities

		JPMCHL
		Gross carrying value defaulted exposures ($'mm)
1	**Opening balance 1st January 2017**	—
2	Loans and debt securities that have defaulted or impaired since the last reporting period	339
6	**Closing balance 31st December 2017**	339

Past Due Exposures

As at 31st December 2017 there were no past due exposures reported in the entities in scope.

9. Unencumbered Assets (Article 443)

Disclosure of the information required under article 443 of the CRR, including those detailed in the EBA Guidelines on encumbered and unencumbered assets[17], has been made under separate disclosure on June 29th 2018.

This document can be found on the firm's website, adjacent to this document, following the link copied here:

http://investor.shareholder.com/jpmorganchase/basel.cfm

[17] EBA/GL/2014/03 published 27th June 2014

10. Use of External Credit Assessment Institutions (Article 444)

ECAIs and Exposure Classes

Under the Standardised approach, RWA are calculated using credit ratings assigned by External Credit Assessment Institutions ('ECAI'). The firm applies the standard ECAI ratings to risk weight mappings provided by the EBA.

J. P. Morgan uses the following ECAIs to determine risk weights for this purpose:

- Moody's;
- Standard & Poor's ('S&P'); and
- Fitch.

These rating assessments are used for calculation of the risk weights for the following classes of exposure:

- Central governments and central banks;
- Institutions;
- Corporates;
- Securitisation positions;
- Multilateral development banks;
- Regional governments and local authorities; and
- Short-term claims on institutions and corporates.

All other exposure classes are assigned risk weightings described in the standardised approach as per the CRR (Article 113 to Article 134).

Exposures at Default by Risk Weights

Credit Risk Exposure at Default Pre-Credit Risk Mitigation

The following tables show exposures at default before credit risk mitigation broken down by credit exposure class and risk weights. The tables includes only credit risk exposures (excluding counterparty credit risk). Risk weights applied for EEA member states are applied under article 114 and hence bucketed under 0%. The Credit and Counterparty Risk requirement for JPMMML is only $384k and therefore the supplementary disclosures below are not made.

Table 48: EU CR5 - Standardised approach (pre-CRM) for JPMCHL

	Exposure class ($'mm)	Risk weight									Total	Of which unrated
		0%	2%	20%	50%	100%	150%	250%	1250%	Deducted		
1	Central governments or central banks	22,639	—	40	—	25	—	169	—	—	22,873	187
3	Public sector entities	—	—	116	—	—	—	—	—	—	116	116
4	Multilateral development banks	—	—		1	—	—	—	—	—	1	1
6	Institutions	—	5,458	17,466	859	1,987	41	—	16	—	25,827	8,093
7	Corporates	—	1,837	2,505	4,070	26,397	2,655	—	46	—	37,510	20,697
9	Secured by mortgages on immovable property	—	—	—	—	858	—	—	—	—	858	858
10	Exposures in default	—	—	—	—	262	—	—	—	—	262	262
11	Higher-risk categories	—	—	—	—	—	644	—	4	—	648	304
15	Equity	—	—	—	—	14	100	19	—	1,042	1,175	37
16	Other items	—	—	—	—	632	—	—	—	123	755	632
17	**Total**	22,639	7,295	20,127	4,930	30,175	3,440	188	66	1,165	90,025	31,185

Table 49: EU CR5 - Standardised approach (pre-CRM) for JPMFIL

	Exposure class ($'mm)	Risk weight			Total	Of which unrated
		20%	50%	100%		
6	Institutions	539	90	201	830	209
7	Corporates	1	—	103	104	103
15	Equity	—	—	11	11	11
16	Other items	—	—	13	13	13
17	**Total**	540	90	328	958	336

Credit Risk Exposure at Default Post-Credit Risk Mitigation

The breakdown of credit risk exposures (excluding counterparty credit risk) post conversion factor and post risk mitigation technique (including volatility adjustments) under the standardised approach, by exposure class, is presented in the tables below.

Table 50: EU CR5 - Standardised approach (post-CRM) for JPMCHL

Exposure classes		Risk weight									Total	Of which unrated
		0%	2%	20%	50%	100%	150%	250%	1250%	Deducted		
1	Central governments or central banks	22,639	—	40	—	25	—	169	—	—	22,873	187
3	Public sector entities	—	—	116	—	—	—	—	—	—	116	116
4	Multilateral development banks	—	—	—	1	—	—	—	—	—	1	1
6	Institutions	—	5,568	17,588	801	1,956	21	—	16	—	25,950	8,210
7	Corporates	—	1,865	1,589	2,351	19,118	1,696	—	46	—	26,665	17,375
9	Secured by mortgages on immovable property	—	—	—	—	858	—	—	—	—	858	858
10	Exposures in default	—	—	—	—	242	—	—	—	—	242	242
11	Higher-risk categories	—	—	—	—	—	544	—	4	—	548	205
15	Equity	—	—	—	—	15	100	18	—	1,042	1,175	37
16	Other items	—	—	—	—	629	—	—	—	123	752	629
17	**Total**	22,639	7,433	19,333	3,153	22,843	2,361	187	66	1,165	79,180	27,860

Table 51: EU CR5 - Standardised approach (post-CRM) for JPMFIL

Exposure classes		Risk weight			Total	Of which unrated
		20%	50%	100%		
6	Institutions	540	90	200	830	209
7	Corporates	1	—	103	104	103
15	Equity	—	—	11	11	11
16	Other items	—	—	13	13	13
17	**Total**	541	90	327	958	336

Counterparty Credit Risk Exposures at Default Pre-Credit Risk Mitigation

The table below shows exposures at default before credit risk mitigation technique for counterparty credit risk broken down by exposure class and risk weight.

Table 52: EU CCR3 - Standardised approach - CCR exposures by regulatory portfolio and risk (pre-CRM) for JPMCHL

Exposure class ($'mm)		Risk weight						Total	Of which unrated
		0%	2%	20%	50%	100%	150%		
1	Central government or central banks	27,662	—	231	—	1,900	—	29,793	1,843
2	Regional government or local authorities	52	—	—	—	1	—	53	—
3	Public sector entities	—	—	338	—	5	—	343	220
4	Multilateral development banks	—	—	—	62	30	—	92	23
5	International organisations	18	—	—	—	—	—	18	18
6	Institutions	—	30,710	93,022	27,812	5,002	1,563	158,109	105,157
7	Corporates	—	22,898	2,470	3,197	66,520	350	95,435	87,464
9	Higher-risk categories	—	—	—	—	—	18,789	18,789	18,789
12	**Total**	27,732	53,608	96,061	31,071	73,458	20,702	302,632	213,514

Table 53: EU CCR3 - Standardised approach - CCR exposures by regulatory portfolio and risk (pre-CRM) for JPMFIL

Exposure class ($'mm)		Risk Weight					Total	Of which unrated
		0%	20%	50%	100%	Others		
1	Central government or central banks	26	—	—	—	1	27	1
6	Institutions	—	1,323	401	—	—	1,724	1
7	Corporates	—	—	—	2	—	2	2
12	**Total**	26	1,323	401	2	1	1,753	4

Counterparty Credit Risk Exposures at Default Post-Credit Risk Mitigation

The table below shows exposures at default post credit risk mitigation technique (including volatility adjustments) for counterparty credit risk broken down by exposure class and risk weight.

Table 54: EU CCR3 - Standardised approach - CCR (post-CRM) exposures by regulatory portfolio and risk for JPMCHL

	Exposure class ($'mm)	Risk weight						Total	Of which unrated
		0%	2%	20%	50%	100%	150%		
1	Central government or central banks	14,646	—	231	—	1,129	—	16,006	1,071
2	Regional government or local authorities	52	—	—	—	1	—	53	—
3	Public sector entities	—	—	241	—	4	—	245	150
4	Multilateral development banks	—	—	—	59	30	—	89	20
5	International organisations	13	—	—	—	—	—	13	13
6	Institutions	—	30,124	37,657	18,923	3,926	560	91,190	44,120
7	Corporates	—	22,898	2,183	2,560	41,212	350	69,203	62,441
9	Higher-risk categories	—	—	—	—	—	15,573	15,573	15,573
12	**Total**	14,711	53,022	40,312	21,542	46,302	16,483	192,372	123,388

Table 55: EU CCR3 - Standardised approach - CCR (post-CRM) exposures by regulatory portfolio and risk for JPMFIL

	Exposure class ($'mm)	Risk weight					Total	Of which unrated
		0%	20%	50%	100%	Others		
1	Central government or central banks	26	—	—	—	1	27	1
6	Institutions	—	23	5	—	—	28	1
7	Corporates	—	—	—	2	—	2	2
12	**Total**	26	23	5	2	1	57	4

11. Exposure to Market Risk (Article 445)

JPMCHL's market risks arise predominantly from activities in the Firm's CIB business booked in JPMS plc. CIB makes markets in products across fixed income, foreign exchange, equities and commodities markets. JPMCHL's portfolio of covered positions under Basel III is predominantly held by the CIB. Some additional covered positions are held by the Firm's other LOBs. JPMFIL's market risk is driven by interest rate risk. There is no material market risk in JPMMML.

Table 56: EU MR1 - Market risk under the standardised approach

	$'mm	JPMCHL		JPMFIL	
		RWA	Capital requirements	RWAs	Capital requirements
	Outright products				
1	Interest rate risk (general and specific)	27,844	2,227	17	1
2	Equity risk (general and specific)	30,890	2,471	0	0
3	Foreign exchange risk	10,713	857	0	0
4	Commodity risk	412	33	0	0
	Options				
5	Simplified approach	0	0	0	0
6	Delta-plus method	2,194	176	0	0
7	Scenario approach	2,242	179	0	0
8	Securitisation (specific risk)	3,371	270	0	0
9	**Total**	77,666	6,213	17	1

12. Operational Risk (Article 446)

Pillar 1

All UK regulated entities with the exception of JPML and JPMMML calculate the operational risk capital requirement for Pillar 1 using the Basic Indicator Approach ('BIA') as set out under Basel III. The BIA sets the required level of operational risk capital as 15% of the bank's annual positive gross income averaged over the previous three years.

The minimum capital requirement for JPML and JPMMML under the Fixed Overheads approach is calculated as the higher of the Fixed Overheads Requirement and the sum of market risk, credit risk and other Pillar 1 capital requirements.

Table 57: Risk Weighted Assets for Operational Risk

Calculation Method ($'mm)	JPMCHL	JPMFIL	JPMMML
Basic Indicator Approach	15,956	75	
Fixed Overheads Requirement			12
Total RWA	15,956	75	12

Pillar 2

In addition to Pillar 1 assessment, the firm adopted an internal approach to calculate operational risk capital under Pillar 2.

The Pillar 2 calculation is based on the Basic Indicator Approach ('BIA') adjusted for the JPMorgan Chase's and Company's ('JPMC') risk profile as calculated in JPMC's global operational risk regulatory capital ('ORC'). JPMC's Operational Risk Capital is derived from the firm's Advanced Model Approach regulatory capital model which also produces ORC for each major line of business ('LOB'). The ORC attributed to each LOB in the global model, and the global revenue for these LOBs are used to determine the risk profile of a given LOB and are used in determining the Pillar 2 ORC for the UK entities as follows:

- Calculating 'global LOB ratios'
- Dividing firm wide ORC allocated to each global LOB by net operating revenues of that global LOB over the last 12 months.

Multiplying the 'global LOB ratios' and a total of net operating revenues booked by each LOB to that entity. The global net operating revenues for each LE attributed to the corporate sector in the last 12 months are incorporated in the total global net operating revenues of the predominant LOB of that entity (i.e. the LOB that has the higher net operating revenues).

13. Non Trading Book Equity Investments (Article 447)

Non Trading Book Equity Investments

The non-trading book equity positions within the consolidated JPMCHL group are primarily related to investments in JPMorgan Chase undertakings. There are no investments in JPMorgan Chase undertakings in the consolidated JPMFIL group (subsidiaries are eliminated on consolidation) or held by JPMMML. Other positions are strategic in nature but are not considered material as they form a small part of diversified business portfolios within the entities they are held in. As such, disclosures on their accounting techniques, valuation methodologies and other applicable disclosure items are not made below. Further details on investments in JPMorgan Chase undertakings can be found in the corresponding annual accounts available on the Companies House website.

Accounting Techniques and Valuation Methodologies

Investments in JPMorgan Chase undertakings are stated at cost less impairment. In the opinion of the Directors, the value of the Group's investments is not less than the amount at which it is stated in the balance sheet. The balance sheet value is used for the purpose of calculating exposure values from a regulatory capital perspective.

Value of Investments

The table below shows the balance sheet value of investments in JPMorgan Chase undertakings as at 31st December 2017. There were no exchange-traded exposures as at 31st December 2017.

Table 58: Balance Sheet Value of Investments

Type of Investment ($'mm)	JPMCHL	JPMFIL
Exchange Traded	—	—
Private Equity	—	1
Investments in JPMorgan Undertakings	13	—
Total Balance Sheet Value	13	1

The JPMCHL group holds a 21% investment in Crosby Sterling (Holdings) limited which increased by $1.2mm due to share of profit.

14. Exposure to Interest Rate Risk on Positions Not Included in the Trading Book (Article 448)

J.P. Morgan Capital Holdings Limited

In addition to the Firmwide IRR measures, JPMCHL's IRRBB is monitored through the standard approach, in line with PRA guidance (as discussed in the PRA's consultation paper (CP 1/15 - Assessing capital adequacy under Pillar 2). In particular, the instantaneous impact of up 200bp parallel shock in rates on the economic value of the non-trading books, as defined within the scope of the Interest Rate Management policy, is estimated for each of the UK entities under JPMCHL. The calculation at JPMCHL level excludes the impact of the residual IRRBB from other LOBs outside CIO & Treasury. The evaluation of the impact of the up 200bp shock on the economic value of JPMCHL's non-trading book vs. the legal entity's capital resources is assessed quarterly.

The following table shows the economic impact for an up 200bp shift in rate for Treasury risk positions in the banking book of JPMCHL as at December 2017, calculated in USD. Change in Economic Value for a decrease in rates is not meaningful, but is also expected to be immaterial.

Table 59: IRRBB for JPMCHL

Non Trading +200bp Economic Impact ($'m)	Non Trading -200bp Economic Impact ($'mm)
48	Non-Meaningful Result*

* Given the level of market interest rates, the downward economic impact is not considered to be meaningful.

J.P. Morgan Financial Investments Limited

JPMML's limited banking book activity is generated by intercompany funding in mainly overnight funding of balances, though some longer dated FX swaps are used to convert long US$ to EUR (risk neutral) to match daily funding needs. The interest rate risk ('IRR') on this activity is not material.

15. Exposure to Securitisation Positions (Article 449)

Securitisation Activities

JPMS plc is the only entity within the JPMCHL group that engages in securitisation activity relating to trading book investor activity; the entity did not act as sponsor or originator during 2017. There is no activity in JPMFIL or JPMMML.

Due Diligence

Basel III and CRDIV require that a banking organization is able to demonstrate, to the satisfaction of its regulatory supervisor, a comprehensive understanding of the features of a securitisation exposure that would materially affect its performance. The banking organization's analysis must be commensurate with the complexity of the exposure and the materiality of the exposure in relation to capital of the banking organization. On an ongoing basis (no less frequently than quarterly), the banking organization must evaluate, review, and update as appropriate the analysis required under section 41(c)(1) of the proposed rule for each securitisation exposure. The Firm's procedures prior to acquisition of a securitisation exposure include an analysis of:

- Structural features of the securitisation that would materially impact the performance of the exposure;
- Relevant information regarding the performance of the underlying credit exposure(s);
- Relevant market data of the securitisation; and
- For resecuritisation exposures, performance information on the underlying securitisation exposures.

In addition to this pre-trade analysis, the firm maintains data related to ongoing performance of the securitisation and resecuritisation exposures. As updated data becomes available, but at least on a quarterly basis for each securitisation and resecuritisation position, the firm's data is updated to reflect this information. This updated performance data is taken into consideration as positions are monitored and evaluated on an ongoing basis.

If the Firm is unable to meet any of the aforementioned due diligence requirements on each securitisation and resecuritisation position, a 1250% risk weight is applied to that position.

Of the entities in scope of the CRR for JP Morgan, only JPMS plc is involved in securitisation activity. JPMS plc was involved solely as an Investor in Securitisation in 2017.

Within JPMS plc, the securitisation business is concentrated in market-making in Asset Backed Securities, Residential Mortgage Backed Securities, Commercial Mortgage Backed Securities and Collateralised Loan Obligations.

Risk Management and Mitigation

Each LOB that transacts in these positions and the Market Risk function work together to monitor the positions, position changes, and the composition of the total portfolio. This includes, but is not limited to, the review of daily positions against approved risk limits using risk measures such as market values, risk factor sensitivities and stress loss scenarios. Covered securitisation and resecuritisation positions are included in the Firm's Risk Management VaR and Regulatory VaR. These positions are included in the market risk and limit reports that are distributed on a daily basis to the trading desks, Risk Management and senior managers within the lines of business.

Various strategies are employed by the Firm to mitigate the risk from securitisation and resecuritisation positions. These include credit risk mitigation at both the transaction and portfolio levels, and include analysis of the underlying collateral, diversification of the positions, and hedging, among others.

JPMorgan Chase securitisation exposures are sensitive to interest rate levels and the overall credit environment. The Firm may hedge credit spread and interest rate risk, and currency risk associated with non-U.S. denominated assets, as needed, related to its securitisation and resecuritisation positions. JPMorgan Chase's policies allow various financial instruments to be employed to mitigate or hedge the risks of securitisation and resecuritisation positions. Examples of these instruments include U.S. Treasuries, interest rate swaps, FX forwards, and various credit derivatives.

The desk takes on different levels of risk depending on the market and the type of risk required to meet the business objectives, along with providing liquidity for our clients at appropriate market levels. The portfolio of risk is mixed between various asset classes, with the concentration of the portfolio as at 31st December 20176 predominantly being senior and mezzanine in the waterfall structure.

Risk Weighting and use of ECAIs

At the European level JPMS Plc calculates capital requirements for securitisations under the CRR. We utilise the standardised approach to calculate risk weighted exposure amounts under Article 251.

As required under the standardised approach used to calculate capital requirements for JPMS plc, the entity applies the following approach to the use of external ratings for the purpose of deriving risk weights:

- Where ratings are provided by three ECAIs, the middle rating is used;

- Where ratings are provided by two ECAIs, the lower rating is used; and
- Where only one rating is provided, this is used.

The Firm applies external ratings from Moody's, Fitch and Standard and Poors for deriving risk weights for all securitisation and resecuritisation positions.

Accounting for Securitisation Positions

The Firm's accounting policies for JPMS plc, under FRS 101, include matters relating to the accounting for securitisations. The determination of whether or not transactions whereby assets are securitized in SPVs is dependent on whether or not the legal rights to the cash flows of the assets have been transferred to the entity, and whether the Firm has transferred substantially all of the assets' risks and rewards. This is in accordance with IAS 39 Financial Instruments: Classification and Measurement, which is the accounting standard that outlines the rules for derecognition of financial assets. This analysis assists in the determination of whether or not the transactions are accounted for as sales or financings. Accounting for synthetic securitisations is determined under the appropriate accounting guidance, such as the guidance for accounting for derivatives and other financial instruments under IAS 39 Financial Instruments: Classification and Measurement. The Firm will recognize arrangements whereby it will provide financial support for the entity depending on the legal form of the arrangement and the substance of the arrangement. Typically the Firm would look to the guidance under IAS 39 for these arrangements as they meet the definition of financial instruments. The Firm notes that where JPMS plc has involvement in securitisations, these interests are reflected in accordance with the guidance under IFRS 10 Consolidated Financial Statements, IFRS 12 Disclosures of Interests in Other Entities and/or IAS 39 Financial Instruments Classification and Measurement.

Key Changes during the Period

There were no significant changes to the Firm's quantitative disclosures for securitisation exposures during the period. All movements reflect standard business-as-usual activity.

Table 60: Outstanding Amount of Exposures Securitised by Seniority for JPMCHL

Exposure Type ($'mm)	Securitised Positions Held (as Investor)		
	Senior	Mezzanine	First Loss (Equity)
Residential Mortgages	775	169	—
Commercial Mortgages	8	27	3
Of which: Resecuritisations	—	—	—
Loans to Corporates or SMEs	131	212	38
Of which: Resecuritisations	1	15	—
Consumer Loans	86	—	—
Other Assets	4	8	12
Of which: Resecuritisations	—	—	—
Total	1,004	416	53

Table 61: Aggregate Amount of Securitised Positions Retained or Purchased by Exposure Type for JPMCHL

Type of Investment ($'mm)	Retained	Purchased	Total
Residential Mortgages	—	944	944
Commercial Mortgages	—	38	38
Of which: Resecuritisations	—	—	—
Loans to Corporates or SMEs	—	381	381
Of which: Resecuritisations	—	16	16
Consumer Loans	—	86	86
Other Assets	—	24	24
Of which: Resecuritisations	—	—	—
Total	—	1,473	1,473

Table 62: Aggregate Amount of Securitised Positions Retained or Purchased by Risk Weight Band for JPMCHL

Risk Weight Band	IRB S&P Equivalent Rating	Standardised S&P Equivalent Rating	Retained ($'m)	Purchased ($'m)
<= 10%	AAA to A+ (Senior Only)	N/A	—	—
> 10% <= 20%	A to A- (Senior Only) / AAA to A+ (Base Case)	N/A	—	735
> 20% <= 50%	A to A- (Base Case)	AAA to AA-	—	262
> 50% <= 100%	BBB+ to BBB (Base Case)	A+ to A-	—	167
> 100% <= 650%	BBB- (Base Case) to BB (Base Case)	BBB+ to BB-	—	107
> 650% <= 1250%	BB- (Base Case)	N/A	—	202
Deducted	B+ & Below (Base Case)	N/A	—	—
Total			—	1,473

Table 63: Aggregate Amount of Securitised and Re-securitised Positions by CQS for JPMCHL

Securitisation / Resecuritisation ($'mm)	CQS 1	CQS 2	CQS 3	CQS 4	Other	Total
Securitisations	734	262	167	100	194	1,457
Resecuritisations	1	—	—	7	8	16
Total	735	262	167	107	202	1,473

16. Remuneration (Article 450)

Background

This section sets out the remuneration disclosures required under Article 450 of the Capital Requirements Regulation (the '**CRR**')[18] in relation to the UK Entities, and in respect of the performance year ending 31st December 2017.

The UK Entities are part of the J.P. Morgan Chase & Co group of companies. In this section, the terms '**J.P. Morgan'** or '**Firm'** refers to the J.P. Morgan Chase & Co. group of companies, and each of the entities in that group globally, unless otherwise specified.

This section sets out general principles. Details of specific remuneration programmes are set forth in the relevant plan terms and conditions as in force from time to time.

Qualitative Disclosures

As part of the Firm, the UK Entities apply J.P. Morgan's global compensation philosophy and pay practices. The qualitative remuneration disclosures required under Paragraphs 1(a) - (f) of Article 450 CRR for all employees of the Firm's subsidiaries and branches located in EMEA, including staff of the UK Entities, is available in the most recent EMEA Remuneration Policy Disclosure at:

http://investor.shareholder.com/jpmorganchase/basel.cfm.

Additional qualitative disclosures specific to the UK Entities

The UK Entities complied with the applicable remuneration requirements of the Capital Requirements Directive ('**CRD IV**')[19], as implemented in the Prudential Regulation Authority Rulebook and Financial Conduct Authority Handbook (the '**Remuneration Rules**'). The following additional disclosures should therefore be read in conjunction with the EMEA Remuneration Policy Disclosure:

- In the 2017 performance year, the Firm established a UK Remuneration Committee ('**UK RemCo**') formed of relevant non-executive members of the Boards of the UK Entities.

- The UK RemCo reviews the remuneration policy applicable to the UK Entities (the '**Remuneration Policy**') on an annual basis, and oversees its implementation. As at 31st December 2017, the UK RemCo last reviewed the Remuneration Policy in June 2017 - which included changes to implement the European Banking Authority's Guidelines on Sound Remuneration Policies[20] - and was satisfied with its implementation.

- The UK RemCo held three meetings in respect of the 2017 performance year.

- The UK Entities undertake an annual review of their staff against the qualitative and quantitative criteria set out in the European Banking Authority's relevant Regulatory Technical Standard[21] to identify those roles which could potentially have a material impact on the risk profile of the UK Entities ('**CRD IV Identified Staff**'). A description of the types of employees considered as material risk takers is set out in the EMEA Remuneration Policy Disclosure. This CRD IV Identified Staff group is reviewed on an ongoing basis and CRD IV Identified Staff are notified of their status and the impact on their remuneration structure.

- The UK Entities' Risk and Compliance functions are involved in the review of the Remuneration Policy, including reviewing the approach to the designation of CRD IV Identified Staff. The Internal Audit function performs a central and independent review of the implementation of the Remuneration Policy on an annual basis, and relevant findings are reported to the UK RemCo.

- All relevant UK Entities have obtained the relevant shareholder approval in accordance with Article 94(1)g of CRD IV (as implemented by the Remuneration Rules) to pay their CRD IV Identified Staff a maximum ratio of fixed to variable compensation of 1:2. This approval was last received on 29th September 2014, and 100% of shareholders were represented and in favour.

- JPMIB is considered to be in 'proportionality level three' under the PRA and FCA's guidance on proportionality. JPMIB considers it appropriate to dis-apply the rules on retained shares, deferral, performance adjustment and, where appropriate, the specific ratio between fixed and variable components of total remuneration on the basis that the Firmwide compensation structure includes appropriate levels of deferral, payment in non-cash instruments, and malus and clawback provisions (as set out in the EMEA Remuneration Policy Disclosure) which it considers to be consistent with and promote effective risk management.

- JPMMML is not currently in scope of the UK RemCo, albeit its 'material risk takers' are also CRD IV Identified Staff of other UK Entities which are in scope. It also complies with the applicable remuneration requirements of the Alternative Investment Fund Manager Directive ('**AIFMD**') and the UCITS V Directive. Further details are available in JPMMML's Remuneration Policy Statement, available at https://jpmorganmansart.com

[18] Regulation (EU) No. 575 / 2013
[19] Directive 2013/36/EU
[20] EBA/GL/2015/22
[21] Commission Delegated Regulation (EU) No 604/2014

Quantitative disclosures

The following aggregate quantitative disclosures relate to the Firm's UK-regulated employees, and therefore include relevant employees of the UK Entities and of J.P. Morgan Chase Bank, N.A. - London branch. For the avoidance of doubt, the quantitative remuneration disclosures for JP Morgan Asset Management International Limited have been disclosed separately.

In preparation of these disclosures, the UK Entities have taken into account their obligations to individuals under the applicable EU and local data protection law. In light of these considerations, the UK Entities have concluded that it is appropriate to aggregate the compensation information in some areas.

All staff

Table 64: All staff

In USD thousands	Fixed Compensation	Variable Compensation	Total Compensation
All staff	2,169,791	1,104,651	3,274,442

CRD IV Identified Staff

Table 65: Breakdown by Business Area

In USD thousands	Total Compensation 2017	Number of Identified Staff
Management Body[22]	81,510	25
Senior Management[23]	100,396	26
All other CRD IV Identified Staff:		
Corporate & Investment Bank	799,345	568
Wealth Management	18,137	13
Corporate functions[24]	38,821	41
Independent Control Functions[25]	30,625	40
Total	**1,068,835**	**713**

Table 66: Breakdown of Total Compensation

In USD thousands	Fixed Compensation 2017 (Cash)	Variable Compensation in respect of 2017			
		Upfront Cash	Upfront Equity	Deferred Cash	Deferred Equity
Management Body	38,805	4,827	1,606	562	35,711
Senior Management	45,925	4,459	2,121	193	47,698
All other CRD IV Identified Staff:					
Corporate & Investment Bank	429,618	70,718	66,275	14,714	218,021
Wealth Management	5,631	7,876	—	—	4,630
Corporate functions	18,035	5,076	4,636	1,264	9,811
Independent Control Functions	14,752	4,834	3,992	931	6,116
Total	**552,765**	**97,789**	**78,631**	**17,664**	**321,986**

[22] Includes both Executives and Non-Executives.
[23] Includes the Firm's Senior Managers under the SMR, excluding those on the Management Body.
[24] Includes costs transferred from other entities.
[25] As per footnote 24.

Table 67: Analysis of Deferred Compensation

In USD thousands	Outstanding as at 1 January 2017	Awarded during 2017	Paid out during 2017	Adjusted ex-post		Forfeited	Outstanding as at 31 December 2017	
				Explicit	Implicit		Unvested	Vested
Share-based								
Management Body	130,097	35,188	(45,047)	—	32,114	—	144,748	7,605
Senior Management	213,569	47,533	(80,705)	—	52,041	(848)	189,931	41,659
All other CRD IV Identified Staff:								
Corporate & Investment Bank	737,617	227,030	(278,407)	—	185,442	(10,820)	820,513	40,349
Wealth Management	13,444	4,265	(5,014)	—	3,897	—	15,791	802
Corporate functions	25,138	7,470	(9,375)	—	6,990	(335)	28,681	1,207
Independent Control Functions	19,473	5,679	(7,886)	—	4,547	(992)	20,316	505
Total	**1,139,337**	**327,166**	**(426,434)**	**—**	**285,031**	**(12,994)**	**1,219,979**	**92,126**
Cash-based								
Management Body	4,378	540	(3,794)	—	22	—	1,146	—
Senior Management	11,336	174	(10,051)	—	39	(58)	1,440	—
All other CRD IV Identified Staff:								
Corporate & Investment Bank	39,655	15,732	(20,767)	—	480	(927)	34,173	—
Wealth Management	—	—	—	—	—	—	—	—
Corporate functions	2,110	1,893	(750)	—	39	(18)	3,274	—
Independent Control Functions	1,410	777	(701)	—	20	(69)	1,438	—
Total	**58,889**	**19,116**	**(36,062)**	**—**	**600**	**(1,072)**	**41,472**	**—**

Table 68: Guarantees, Sign-ons and Severance Payments

In USD thousands	Guarantees and Sign-on		Severance		
	Number of Identified Staff	Made during the year	Number of Identified Staff	Made during the year	Highest award to a single person
Management Body	—	—	—	—	—
Senior Management	—	—	1	259	259
All other CRD IV Identified Staff	2	2,435	25	6,860	400

Table 69: Total Compensation Banding for CRD IV Identified Staff Earning at least EUR 1 Million

2017 Total Compensation Bands	Number of Identified Staff
€1,000,001 to €1,500,000	163
€1,500,001 to €2,000,000	65
€2,000,001 to €2,500,000	38
€2,500,001 to €3,000,000	23
€3,000,001 to €3,500,000	11
€3,500,001 to €4,000,000	16
€4,000,001 to €4,500,000	3
€4,500,001 to €5,000,000	6
Over €5,000,001	13

17. Leverage (Article 451)

Managing Leverage Risk

Leverage risk is monitored through the same processes and frameworks as capital adequacy and stress-testing. The latter is particularly important, as it is forward-looking: if the Firm's leverage ratios remain sustainable under stressed conditions, the risk of forced de-leveraging will be low.

The capital adequacy framework 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.

On an annual basis, the Firm completes the ICAAP, which provides management with a view of the impact of severe and unexpected events on earnings, risk-weighted assets, capital and leverage. The Firm's ICAAP integrates stress-testing protocols with capital planning.

The process assesses the potential impact of alternative economic and business scenarios on the Firm'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, realized events can always be worse. ICAAP results are reviewed by management and the relevant Board of Directors.

Leverage Ratio Commentary

- **JPMCHL**: The leverage ratio has decreased by 0.89% (8.46% as at 31st December 2016). The decrease in the leverage ratio is mainly driven by an increase in Derivatives and in trading book exposure impacting the denominator of the ratio. This movement was primarily driven by increased business activity.
- **JPMFIL**: The leverage ratio stands at 94.34% as at 31st December 2017

Table 70: Summary Reconciliation of Accounting Assets and Leverage Ratio Exposures

	LR Sum ($'mm)	JPMCHL	JPMFIL
		Applicable Amount	
1	Total assets as per published financial statements	629,134	5,447
4	Adjustments for derivative financial instruments	(72,375)	9
5	Adjustment for securities financing transactions (SFTs)	43,547	—
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	13,146	—
7	Other adjustments	(2,315)	(1)
8	**Leverage ratio total exposure measure**	**611,137**	**5,455**

Table 71: Split of On-Balance Sheet Exposures

	LR Spl ($'mm)	JPMCHL	JPMFIL
		CRR leverage ratio exposures	
EU-1	Total on-balance sheet exposures (exc. Derivatives, SFTs and exempted exposures), of which:	227,641	1,010
EU-2	Trading book exposures	162,650	96
EU-3	Banking book exposures, of which:	64,991	914
EU-5	Exposures treated as sovereigns	22,873	—
EU-6	Exposures to regional governments, MDB, international organisations and PSEs not treated as sovereigns	117	—
EU-7	Institutions	25,521	786
EU-8	Secured by mortgages of immovable properties	858	—
EU-10	Corporate	13,952	104
EU-11	Exposures in default	339	—
EU-12	Other exposures (e.g. equity, securitisations and other non-credit obligation assets)	1,333	24

Table 72: Leverage Ratio Common Disclosure

	LR Com ($'mm)	JPMCHL	JPMFIL
		CRR leverage ratio exposures	
	On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	227,641	1,010
2	(Asset amounts deducted in determining Tier 1 capital)	(2,315)	(1)
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	225,326	1,009
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	41,203	24
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	176,733	9
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(53,202)	(1)
8	(Exempted CCP leg of client-cleared trade exposures)	(4,294)	—
9	Adjusted effective notional amount of written credit derivatives	306,988	—
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(306,988)	—
11	**Total derivative exposures (sum of lines 4 to 10)**	160,440	32
	SFT exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	317,899	4,414
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(149,221)	—
14	Counterparty credit risk exposure for SFT assets	43,547	—
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	212,225	4,414
	Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	24,108	—
18	(Adjustments for conversion to credit equivalent amounts)	(10,962)	—
19	**Other off-balance sheet exposures (sum of lines 17 and 18)**	13,146	—
	Capital and total exposure measure		
20	**Tier 1 capital**	46,293	5,146
21	**Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)**	611,137	5,455
	Leverage ratio		
22	**Leverage ratio**	7.57%	94.34%
	Choice on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	Fully phased in	Fully phased in

18. Use of Credit Risk Mitigation Techniques (Article 453)

As part of its management of credit and counterparty credit exposures, the Firm actively engages in credit risk mitigation techniques to reduce the amount of credit risk it is taking, to spread the concentration of risk across its portfolio and ultimately to ensure efficient use of capital in compliance with the applicable regulations. This is accomplished through a number of means, including loan sales, receipt of collateral, master netting agreements, guarantees and credit derivatives and other risk-reduction techniques.

As a result of such credit risk mitigation activities the firm is potentially exposed to residual risk to the extent that said techniques prove less effective than expected. In this regard, the firm has established policies and procedures to ensure that this risk is adequately governed and the mitigating technique conservatively measured, as detailed below.

Receipt of collateral and netting arrangements: Where possible, the Firm seeks to mitigate its credit risk exposures arising from derivative transactions through the use of legally enforceable master netting arrangements and collateral agreements.

The Firm also seeks to mitigate its credit risk exposures through the use of legally enforceable master netting arrangements. These master agreements allow for netting of credit risk exposure to a counterparty resulting from transactions against the Group's obligations to the counterparty in the event of default, to produce lower net credit exposure. Similarly to CCF, Netting Confidence Factor ('NCF') is assigned to each jurisdiction/institution type where the Firm has obtained a legal opinion on the enforceability of the master trading agreement to close-out all governed transactions on a net basis in the event of a default (i.e. at a single legal claim). If the NCF is lower than 100%, no netting benefit is given.

Guarantees: The Third-Party Credit Supports policy sets out specific criteria for guarantees to be eligible for capital reduction, and to the extent they are not eligible the exposure retains its full value for the purposes of capital calculation. To ensure the legal enforceability of the commitment by the guarantor, all guarantees must be reviewed by legal counsel at the outset and are also subject to periodic review to ensure their ongoing effectiveness.

Credit Derivatives: The Firm uses credit derivatives used to mitigate the credit risk associated with traditional lending activities (loans and unfunded commitments) and derivatives counterparty exposure in the Firm's wholesale businesses. The effectiveness of credit default swaps ('CDS') as a hedge against the Firm's exposures may vary depending on a number of factors, including the named reference entity (i.e., the Firm may experience losses on specific exposures that are different than the named reference entities in the purchased CDS); the contractual terms of the CDS (which may have a defined credit event that does not align with an actual loss realized by the Firm); and the maturity of the Firm's CDS protection (which in some cases may be shorter than the Firm's exposures). However, the Firm generally seeks to purchase credit protection with a maturity date that is the same or similar to the maturity date of the exposure for which the protection was purchased, and remaining differences in maturity are actively monitored and managed by the Firm.

Collateral Valuation and Management

The Firm's policies for collateral valuation and management are representative of industry standards and best practices. The fair value of the collateral is monitored daily. Full market value is not given to marketable assets accepted as collateral (apart from cash) in recognition of the fact that collateral is subject to price volatility and liquidity. A standard valuation reduction percentage (haircut) is applied to each asset class to mitigate the potential price decline of the collateral thereby covering volatility during the cure period. In addition, a Collateral Confidence Factor ('CCF') is assigned to each jurisdiction where the Firm has obtained a legal opinion on collateral enforceability. Any changes to CCFs require approval by Legal department. If the CCF is lower than 95% then, although J. P. Morgan would strictly have legal rights to collateral, conservatively no benefit is given to collateral in the exposure calculation for the purposes of capital requirements.

The Firm has internal policies in place relating to the type of acceptable collateral. These policies apply to the business which is booked in applicable UK legal entities. Cash and high quality bonds are generally considered acceptable collateral.

Main Types of Collateral

As at 31st December 2017, circa 83% of the collateral which JPMS plc held from external counterparties and affiliates was in cash, 10% in government bonds of which 9% from G6 countries, and 7% in others bonds.

Table 73: EU CR4 - Standardised approach - Credit risk exposure and CRM effects for JPMCHL

Exposure classes ($'mm)		Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
		On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
1	Central governments or central banks	22,873	—	22,873	—	454	1.99%
3	Public sector entities	116	—	116	—	23	20.00%
4	Multilateral development banks	1	—	1	—	—	50.00%
6	Institutions	25,521	306	25,806	144	6,222	23.98%
7	Corporates	13,951	23,559	13,784	12,881	23,770	89.14%
9	Secured by mortgages on immovable property	858	—	858	—	858	100.00%
10	Exposures in default	222	40	222	20	242	100.00%
11	Higher-risk categories	448	200	448	100	864	157.54%
15	Equity	133	—	133	—	211	158.45%
16	Other items	628	4	628	1	629	100.00%
17	**Total**	64,751	24,109	64,869	13,146	33,273	42.65%

Table 74: EU CR4 - Standardised approach - Credit risk exposure and CRM effects for JPMFIL

Exposure classes ($'mm)		Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
		On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
6	Institutions	830	—	830	—	353	42.57%
7	Corporates	104	—	104	—	103	99.34%
15	Equity	11	—	11	—	11	100.00%
16	Other items	13	—	13	—	13	100.00%
17	**Total**	958	—	958	—	480	50.17%

Table 75: CRM techniques - Overview by exposure class for JPMCHL

	Exposure class ($'mm)	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Central governments or central banks	38,878	13,788	13,788	—	—
2	Regional government or local authorities	53	—	—	—	—
3	Public sector entities	362	98	98	—	—
4	Multilateral development banks	90	3	3	—	—
5	International organisations	13	5	5	—	—
6	Institutions	117,302	66,933	66,933	—	—
7	Corporates	106,545	26,493	26,493	—	—
9	Secured by mortgages on immovable property	858	—	—	—	—
10	Exposures in default	262	—	—	—	—
11	Higher-risk categories	16,221	3,235	3,235	—	—
15	Equity	133	—	—	—	—
16	Other items	632	—	—	—	—
17	**Total**	281,349	110,555	110,555	—	—

Table 76: CRM techniques - Overview by exposure class for JPMFIL

	Exposure class ($'mm)	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Central governments or central banks	27	—	—	—	—
6	Institutions	857	1,811	1,811	—	—
7	Corporates	106	—	—	—	—
15	Equity	11	—	—	—	—
16	Other items	13	—	—	—	—
17	**Total**	1,014	1,811	1,811	—	—

Table 77: EU CR3 - CRM techniques - Overview for JPMCHL

	$'mm	Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total loans	16,564	242	242	—	—
2	Total debt securities	39	—	—	—	—
3	**Total exposures**	16,603	242	242	—	—
4	Of which defaulted	339	—	—	—	—

Table 78: EU CR3 - CRM techniques - Overview for JPMFIL

	$'mm	Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total loans	102	—	—	—	—
3	**Total exposures**	102	—	—	—	—

Exposures Covered by Credit Derivatives and Guarantees

JPMS PLC has a significant volume of credit derivatives in its trading portfolio. These are held for trading intent and are treated under the market risk framework rather than as credit risk mitigation.

Balance Sheet Netting

The Firms' financial statements are prepared under FRS 101 with the exception of JPMCHL consolidated financial statements which are prepared under FRS 102. FRS 101 applies the recognition and measurement requirements of International Financial Reporting Standards ('IFRS') as adopted by the European Union, with reduced disclosures. Under IFRS financial assets and financial liabilities are offset and the net amount reported in the balance sheet when the requirements of IAS 32 'Financial Instruments: Presentation' are met; (i) there is currently a legally enforceable right to offset the recognised amounts and (ii) 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 firm or the counterparty. The same offsetting criterion is applied under FRS 102.

Credit Risk Netting

In most jurisdictions in which the Firms operate, credit risk exposures can be reduced by applying netting. The Firms' normal practice is to enter into standard master agreements with counterparties (e.g. International Swaps and Derivatives Association, Global Master Repurchase Agreement, Global Master Stock Lending Agreement). These master agreements allow for netting of credit risk exposure to a counterparty resulting from transactions against the Group's obligations to the counterparty in the event of default, to produce lower net credit exposure. These agreements may also reduce settlement exposure (e.g. for foreign exchange transactions) by allowing for payments on the same day in the same currency to be set-off against one another. The firms apply the requirements as set out in the CRR with regards to application of netting from a regulatory capital perspective.

19. Use of Internal Market Risk Model (Article 455)

Own Funds Requirements for Market Risk under the IMA

The standardised approach (see Section 11) and Internal market risk models are employed to compute own funds requirements for market risk. The capital charge under IMA represents approximately 8% of total market risk capital charge. The table below summarises the components of the own funds requirements under the IMA for market risk.

Table 79: EU MR2-A - Market risk under the IMA

	$'mm	JPMCHL	
		RWA	Capital requirements
1	VaR (higher of values a and b)	1,141	91
(a)	Previous day's VaR (Article 365(1) of the CRR (VaRt-1))		24
(b)	Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 of the CRR		91
2	SVaR (higher of values a and b)	2,810	225
(a)	Latest SVaR (Article 365(2) of the CRR (SVaRt-1))		84
(b)	Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x multiplication factor (ms) (Article 366 of the CRR)		225
3	IRC (higher of values a and b)	2,860	229
(a)	Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR)		209
(b)	Average of the IRC number over the preceding 12 weeks		229
6	**Total**	6,811	545

As it is displayed in the table below, the internal model was implemented on 1st June 2017. Since the implementation own funds requirements increased by $132m to $545m mainly driven by an increase in IRC due, in turn, to an increase in long bond risk. There were no significant updates nor methodology or policy changes to the calculations.

Table 80: EU MR2-B - RWA flow statements of market risk exposures under the IMA

	$'mm	VaR	SVaR	IRC	Total RWAs	Total capital requirements
1	**RWAs at 1st January 2017**	—	—	—	—	—
i	Model implementation (1st June 2017)	1,051	2,176	1,941	5,168	413
2	Movement in risk levels	89	675	855	1,619	130
3	Model updates/changes	1	(41)	64	24	2
4	Methodology and policy	—	—	—	—	—
8	**RWAs at the end of reporting period**	1,141	2,810	2,860	6,811	545

Other Quantitative Information for Market Risk under the IMA

The following table displays the capital requirement values (maximum, minimum, average and the ending for the reporting period) resulting from different types of models approved by the PRA to be used for computing the regulatory capital charge at group level. The table captures data from 1st June 2017 till 31st December 2017.

Table 81: EU MR3 - IMA values for trading portfolios

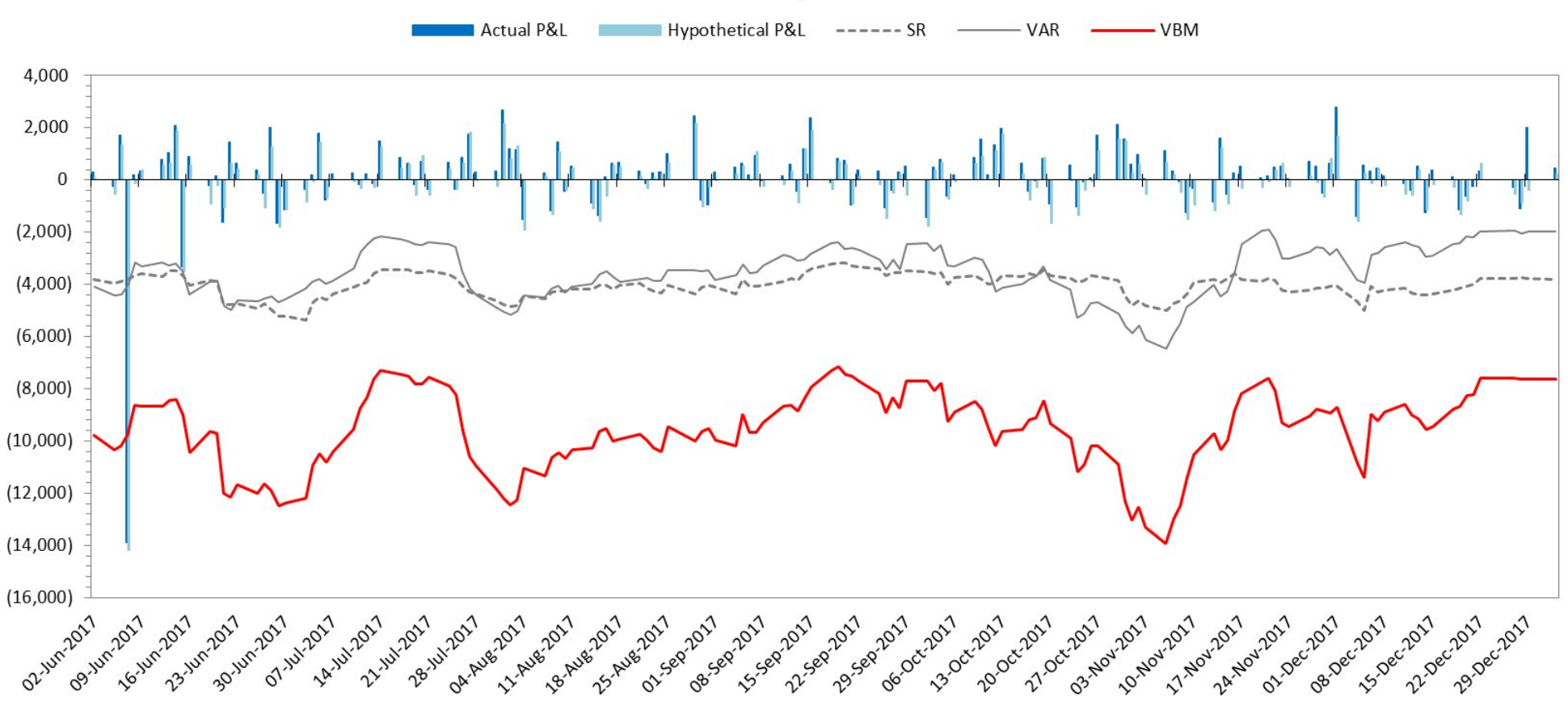
		JPMCHL ($'mm)
VaR (10 day 99%)		
1	Maximum value	44
2	Average value	30
3	Minimum value	23
4	Period end	24
SVaR (10 day 99%)		
5	Maximum value	123
6	Average value	96
7	Minimum value	76
8	Period end	84
IRC (99.9%)		
9	Maximum value	281
10	Average value	192
11	Minimum value	115
12	Period end	209

VBM Back-Testing

The Firm evaluates the effectiveness of its VBM[26] methodology by back-testing, which compares daily market risk-related gains and losses with daily VBM results for a one-day holding period and a 99% confidence level as prescribed by capital rules. Market risk related gains and losses are defined as profits and losses on trading book positions, captured through Hypothetical P&L and Actual P&L[27].

VBM 'back-testing exceptions' occur when market risk related losses are greater than the estimate predicted by the VBM for the corresponding day. The following chart presents the VBM back-testing results for JPMS plc trading book positions covered by current IMA permission. In 2017 the PRA VaR approved entities saw an exception in June - the loss exception was driven by market move in excess of a 99% confidence interval.

Table 82: Comparison of VaR estimates with gains/losses



[26] J.P. Morgan uses 'VaR- based measure' (VBM), which should be treated as VaR for IMA regulatory capital purposes (as defined in the Capital Requirements Regulation (CRR)).

[27] ***Hypothetical P&L*** (which is defined in JPM internal terminology as 'Clean P&L') is defined as market risk-related gains and losses on in-scope products and legal entities, excluding fees, brokerage commissions, fair value adjustments, net interest income, carry and gains and loss arising from day one positions.
Actual P&L consists of 'Hypothetical P&L,' as defined above, plus carry, gains and losses from day one positions and certain reserves. P&L is updated with reserves including but not limited to fair value adjustments, model limitation and price testing at month-end.

20. Liquidity risk (Article 435(1))

Liquidity Risk is the risk that the Firm 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 assessment, measurement, monitoring, and control of liquidity risk across the Firm. Liquidity risk oversight is managed through a 'CRO'), who reports to the Firm's CRO, as part of the independent risk management function, is responsible for firmwide Liquidity Risk Oversight. Liquidity Risk Oversight's responsibilities include:

- Establishing and monitoring limits, indicators and thresholds including liquidity risk appetite tolerances;
- Monitoring internal firmwide and material legal entity liquidity stress tests, and monitoring and reporting regulatory defined liquidity stress testing;
- Approving or escalating for review liquidity stress assumptions;
- Monitoring liquidity positions, balance sheet variances, and funding activities; and
- Conducting ad hoc analysis to identify potential emerging liquidity risk.

Liquidity management

Corporate Treasury and CIO are responsible for liquidity management. The primary objectives of effective 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, and
- Manage an optimal funding mix and availability of liquidity sources.

The Firm manages liquidity and funding using a centralised, global approach across its entities, taking into consideration both their current liquidity profile and any potential changes over time, in order to optimise liquidity sources and uses. In the context of the Firm's liquidity management, Treasury and 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, guidelines, 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 the underlying liquidity characteristics of balance sheet assets and liabilities as well as certain off-balance sheet items.

Treasury and the independent LRO function have established and implemented strategies, policies and procedures to effectively manage liquidity risk, which include the Liquidity Risk Oversight Policy, the Liquidity Management Framework, the CFP and the Liquidity Risk Limits and Indicators Policy. These policies and frameworks apply on a firmwide basis, and are supplemented by legal entity approaches where appropriate. Policies and procedures are in place for the review of all liquidity stress testing practices, methodologies, and assumptions through the firmwide Liquidity Stress Governance Forum; this includes application of legal entity specific assumptions where required.

JPMCHL subsidiaries' boards are ultimately responsible for the liquidity and funding risk within each entity and for establishing an appropriate liquidity risk appetite that reflects the nature and complexity of the business undertaken in the entity.

Risk governance and measurement

Specific committees responsible for liquidity governance include the firmwide Asset Liability Committee ('ALCO'), as well as line of business and regional ALCOs, the CTC Risk Committee, the JPMCHL subsidiaries' DRPC and the EMEA Risk Committee.

Internal Stress Testing

Liquidity stress tests are intended to ensure that the Firm 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 JPMorgan Chase and the Firm's material legal entities and other entities as relevant, on a regular basis and ad hoc stress tests are performed, as needed, in response to specific market events or concerns.

Liquidity stress tests assume all of the Firm'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 and 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 Firm's funding plan and assessment of its liquidity position. The JPMorgan Chase (Parent Company) acts as a source of funding for the Firm through equity and long-term debt issuances, and its wholly owned direct subsidiary JPMorgan Chase Holdings LLC ('Intermediate Holding Company') which provides funding support to the ongoing operations of the Parent Company and its subsidiaries, as necessary. The Firm maintains liquidity at the Parent Company and the Intermediate Holding Company, in addition to liquidity held at the operating subsidiaries, at levels sufficient to comply with liquidity risk tolerances and minimum liquidity requirements, to manage through periods of stress where access to normal funding sources is disrupted.

Regulatory required stress tests and internal stress tests are conducted to ensure the Firm meets all compliance requirements. The Firm has systems in place to aid in the measurement, management, monitoring and reporting of liquidity risks.

Contingency funding plan

The Firm's contingency funding plan ('CFP') is approved by the firmwide ALCO and the DRPC is a compilation of procedures and action plans for managing liquidity through stress events. The CFP incorporates the limits and indicators set by the Liquidity Risk Oversight group. These limits and indicators are reviewed regularly to identify the emergence of risks or vulnerabilities in the Firm's liquidity position. The CFP identifies the alternative contingent funding and liquidity resources available to the Firm and its legal entities in a period of stress.

Internal Liquidity Adequacy Assessment Process

Annually, JPMCHL completes the Internal Liquidity Adequacy Assessment Process ('ILAAP'), which provides management with an assessment of the adequacy of JPMCHL and its subsidiaries' liquidity resources to cover liabilities as they fall due in a range of stressed conditions. The ILAAP details all the information necessary for JPMCHL, its subsidiaries' Boards, as well as the Prudential Regulation Authority to make an informed judgment as to the appropriate level of liquidity the firm should hold, as well as the adequacy of the firm's liquidity risk management framework.

Liquidity risk reporting and measurement system

JPMCHL uses the firm's strategic liquidity risk technology platform (Liquidity Risk Infrastructure - 'LRI') to report and measure its liquidity risk position. LRI is the single global source for data consumption and reporting capabilities of the firm's liquidity reporting (both internal and external) and analytics as well as line of business, legal entity, currency and specific jurisdictional requirements and is also used to execute stress testing and associated limits and indicators.

Liquidity Coverage Ratio ('LCR')

The Liquidity Coverage Ratio[28] as per the Commission Delegated Regulation (EU) 2015/61 requires credit institutions to maintain an amount of unencumbered high quality liquid assets that is sufficient to meet their estimated total net cash outflows over a prospective 30 calendar-day period of significant stress. The LCR was required to be 80% at 1st October 2015, rising to 90% on 1st January 2017 until reaching a minimum requirement of 100% from 1st January 2018.

The LCR disclosure in this document has been assessed in accordance with the EBA guidelines on LCR disclosure (EBA/GL/2017/01) applying the necessary considerations set out in the EBA guidelines on materiality, proprietary and confidentiality and on disclosure frequency (EBA/GL/2014/14) and consistent with the EBA guidelines on disclosure requirements (EBA/GL/2016/11).

JPMMML, JPMFIL and JPMFIL's main operating subsidiary, JPMML, are currently not subject to the LCR Delegated Act. Consequently, they are not subject to the LCR disclosure guidelines set out in EBA/GL/2017/01.

[28] In line with the EBA guidelines the average ratio disclosed in Table 83 is calculated as an average over the 12 data points used for each item, and therefore the quoted ratio is not equal to the average 'Liquidity buffer' divided by average 'Total net cash outflows'.

Table 83: LCR disclosure template for JPMCHL

Scope of consolidation: JPMCHL		Total unweighted value (average)	Total weighted value (average)
Currency and units: ($'mm)			
Quarter ending on:		31-Dec-17	31-Dec-17
Number of data points used in the calculation of averages		12	12
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		76,225
CASH-OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	8,258	1,154
3	*Stable deposits*	210	10
4	*Less stable deposits*	8,049	1,144
5	Unsecured wholesale funding	22,278	14,069
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	7,668	1,917
7	*Non-operational deposits (all counterparties)*	14,610	12,152
9	Secured wholesale funding		39,313
10	Additional requirements	39,058	23,837
11	*Outflows related to derivative exposures and other collateral requirements*	21,726	20,185
12	*Outflows related to loss of funding on debt products*	575	575
13	*Credit and liquidity facilities*	16,757	3,076
14	Other contractual funding obligations	86,364	42,430
15	Other contingent funding obligations	11,997	1,075
16	**TOTAL CASH OUTFLOWS**		121,877
CASH-INFLOWS			
17	Secured lending (eg reverse repos)	250,329	44,213
18	Inflows from fully performing exposures	8,136	5,006
19	Other cash inflows	48,293	46,042
20	**TOTAL CASH INFLOWS**	306,758	95,261
EU-20c	***Inflows Subject to 75% Cap***	266,773	95,261
			Total adjusted value
21	**LIQUIDITY BUFFER**		**76,225**
22	**TOTAL NET CASH OUTFLOWS**		**31,072**
23	**LIQUIDITY COVERAGE RATIO (%)**		**250%**

The adjusted value of the liquidity buffer is the value of the total high quality liquid assets after the application of both haircuts and any applicable cap. The adjusted value of net cash outflows is calculated after the cap on inflows is applied where relevant.

JPMCHL's average LCR was 250% for the period ending on 31st December 2017.

The liquidity buffer disclosed covers both Pillar I and Pillar II liquidity risks.

Concentration of funding and liquidity sources

JPMCHL's stock of HQLA primarily consists of unencumbered cash and certain high quality liquid securities as defined in the LCR rule. JPMCHL funds its balance sheet through diverse sources of funding including operational and non-operational deposits and secured and unsecured funding in the capital markets. The primary source of long-term unsecured funding liabilities is from other affiliates.

Derivative exposures and potential collateral calls

In the normal course of business, JPMCHL uses derivative instruments for market-making activities and to manage its own credit and market risk exposure. The LCR cash flows related to derivative contracts primarily reflect potential calls from counterparties to post additional collateral in the form of variation margin or initial margin due to potential valuation changes or downgrades of the Firm's external credit ratings. In addition, the LCR derivative cash flows reflect counterparties' contractual right to substitute higher quality collateral with lower quality collateral, as well as requiring the return of initial margin to clients.

Currency mismatch in the LCR

The currency composition of JPMCHL's liquidity buffer is broadly matched with that of its net outflows for potential short term stress periods. Stress results are monitored for each significant currency.

21. Bank Recovery and Resolution Directive

Article 26 of the Bank Recovery and Resolution Directive ('BRRD') states that member States shall ensure that group entities make public whether or not they have entered into a group financial support agreement pursuant to Article 19 of the BRRD and make public a description of the general terms of any such agreement and the names of the group entities that are party to it and update that information at least annually. Articles 431 to 434 of Regulation (EU) No 575/2013 shall apply.

Pursuant to the disclosure requirements under the PRA's Group Financial Support Instrument 2015, the BRRD undertakings on which the disclosure obligation is imposed have not entered into any group financial support agreement.

Pursuant to the disclosure requirements under the FCA handbook section IFPRU 11.5, no firm or qualifying parent undertaking on which the disclosure obligation is imposed has entered into any group financial support agreement.

22. Disclosures Not Applicable to the UK Entities

The following Articles of CRR are not applicable as at 31st December 2017:

- Indicators of global systemic importance (Art. 441);
- Use of the IRB Approach to credit risk (Art. 452); and
- Use of the Advanced Measurement Approaches to operational risk (Art. 454).

23. Glossary of Acronyms

ALCO	Asset and Liability Committee	ICAAP	Internal Capital Adequacy Assessment Process
ALMM	Additional Liquidity Monitoring Metrics	IFRS	International Financial Reporting Standards
APAC	Asia Pacific	ILAAP	Internal Liquidity Adequacy Assessment Process
AVG	Average exposure	IRM	Independent Risk Management
AT	Additional Tier	IRR	Interest Rate Risk
BIA	Basic Indicator Approach	IRRBB	Interest Rate Risk in the Banking Book
BRRD	Bank Recovery and Resolution Directive	ITS	Implementing Technical Standards
BSUKHL	Bear Stearns United Kingdom Holdings Limited	JPMAME	JPMorgan Asset Management (Europe) Sarl
CCF	Credit Conversion Factor	JPMC	J.P. Morgan Chase and Company
CCP	Central Counterparty Clearing House	JPMCHL	J.P. Morgan Capital Holdings Limited
CDS	Credit Default Swap	JPMEL	J.P. Morgan Europe Limited
CEO	Chief Executive officer	JPMFIL	J.P. Morgan Financial Investments Limited
CET	Common Equity Tier	JPMIB	J.P. Morgan International Bank Limited
CFO	Chief Finance Office	JPML	J.P. Morgan Limited
CFP	Contingency Funding Plan	JPMML	J.P.Morgan Markets Limited
CIB	Corporate and Investment Bank	JPMMML	J.P. Morgan Mansart Management Limited
CIO	Chief Investment Office	JPMS PLC	J.P. Morgan Securities PLC
CMDC	Compensation and Management Development Committee	LCR	Liquidity Coverage Ratio
CQS	Credit Quality Step	LDA	Loss Distribution Approach
CRD	Capital Requirements Directive	LGD	Loss given default
CRO	Chief Risk Officer	LOB	Line of Business
CRR	Capital Requirements Regulation	LRO	Liquidity Risk Oversight
CTC	CIO, Treasury and Corporate	MRC	Market Risk Committee
CTC RC	The CIO, Treasury and Other Corporate Risk Committee	NBIA	New Business Initiative Approval
CVA	Credit Valuation Adjustment	NCF	Netting Confidence Factor
DRE	Derivative Risk Equivalent	NSFR	Net Stable Funding Ratio
DRPC	Directors' Risk Policy Committee	ORC	Operational Risk Regulatory Capital
EBA	European Banking Authority	ORG	Operational Risk Governance
ECAI	External Credit Assessment Institutions	ORMF	Operational Risk Management Framework
EMC	EMEA Management Committee	OTC	Over the Counter
EMEA	Europe, Middle East and Africa	PD	Probability of Default
EOC	EMEA Operating Committee	PRA	Prudential Regulation Authority
ERC	EMEA Risk Committee	PTG	Pre-Trade Transaction Guidelines
FCA	Financial Conduct Authority	RCSA	Risk Control Self Assessment
FCC	Firmwide Control Committee	RWA	Risk Weighted Assets
FCCM	Financial Collateral Comprehensive Method	S&P	Standard & Poor's
FRC	Firmwide Risk Committee	SFT	Securities Financing Transactions
FRS	Financial Reporting Standard	SNPR	Single Name Position Risk
FSI	Firmwide Stress Infrastructure	TAG	Transaction Approval Group
IAS	International Accounting Standards	VaR	Value-at-Risk