J.P. MORGAN STRUCTURED PRODUCTS B.V.
Amsterdam, the Netherlands

(Chamber of Commerce Number: 34259454)

Financial statements for the six month period ended 30 June 2019

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Interim report for the six month period ended 30 June 2019

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J.P. MORGAN STRUCTURED PRODUCTS BV
Directors' report

The directors present their report and the interim financial statements of J.P. Morgan Structured Products B.V. (the "Company") for the six month period ended 30 June 2019.

Principal activity

The Company's primary activity is the management and issuance of structured products comprising certificates, warrants and other market participation notes, and the subsequent hedging ("hedge","hedging") of these positions.

Review of business

During the year, the Company continued to issue structured products. The proceeds from the sale of the structured products were used to fund the activities of other JPMorgan Chase & Co. (together with its subsidiaries "Firm" or "JPMorgan Chase") undertakings through certain economic hedging arrangements. The principal purpose of these hedging arrangements is to hedge against various risks associated with the issuance activity. During the period, the Company issued structured products in the Asia Pacific region, Europe, the Middle East, Africa, Latin America and the United States of America, issued to private investors or listed on exchanges.

The Company's ultimate controlling entity is JPMorgan Chase & Co.

Key performance indicators ("KPI")

As the Company is managed as part of the Corporate Investment Bank of JPMorgan Chase there are no KPI's that are specific to the Company. The results are monitored against expectations of the business activities. A more detailed description of the Firm's key performance indicators may be found within the JPMorgan Chase & Co. 2018 Annual Report.

Business environment, strategy and future outlook

The primary objective of the Company is the continued development of structured products to be offered and sold to retail, 'high net worth' and institutional investors principally outside of the United States of America, linked to a range of underlying reference assets including equity, credit, interest rates, commodities and so called 'alternatives' such as funds and hedge funds.

Principal risks and uncertainties

The Company's issuance activities expose it to financial and operational risks, which are managed by the Board of Directors, using the Firm's risk management framework. The Board of Directors monitors the Company's financial and operational risks and has responsibility for ensuring effective risk management and control. Further details on the financial risks of the Company are set out in note 18 to the financial statements.

Results and dividends

The results for the period are set out on page 5 and show the Company's profit for the period after taxation is $8.7 million (2018: $2.1 million).

No dividend was paid or proposed during the period (2018: nil).

Events after the reporting period

The Directors are not aware of any events or circumstances which have taken place after 30 June 2019 but before these financial statements have been approved for issue, that could materially affect the financial position or results of the Company and which would require specific disclosure in these financial statements.

Directors

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

J.C.P. van Uffelen	(Appointed 6 March 2007)
D.R. Hansson	(Appointed 5 August 2010) (Resigned 29 July 2019)
W.H. Kamphuijs	(Appointed 1 September 2014)
M.F.C van der Werff	(Appointed 20 March 2018)
Sim Ee Cheah	(Appointed 13 December 2018)
N. Dargan	(Appointed 29 July 2019)

Composition of the Board

The size and composition of the Board of Managing Directors and the combined experience and expertise should reflect the best fit for profile and strategy of the Company. With effect from the 20 March 2018, the Company complies with the gender diversity goals set out in article 2:276 section 2 of the Dutch Civil Code.

Creditor payment policy

All invoices from suppliers are settled on the Company's behalf by an affiliated JPMorgan Chase company, JPMorgan Chase Bank, N.A.

JPMorgan Chase Bank, N.A.'s policy is to pay invoices (including those in respect of the Company) upon presentation, except where other arrangements have been negotiated with the supplier. It is the policy of the Company to abide by the terms of payment, provided the supplier performs according to the terms of the contract.

Registered address

Herikerbergweg 238
Luna ArenA, 1101CM
Amsterdam

Expected developments of the Company

The directors of the Company expect:

a) that the Company will continue to issue structured products;
b) that the Company will not enter into fixed asset investments; and
c) that the interest income will continue to fluctuate in line with the development in market interest rates.

Statement under Transparency Directive (as implemented in Dutch law)

The directors confirm to the best of their knowledge that:

a) the attached financial statements are prepared in accordance with International Financial Reporting Standards ("IFRS") as endorsed by the European Union and give a true and fair view of the assets, liabilities, financial position and profit of the Company for the period ended 30 June 2019, and
b) the interim report for the period ended 30 June 2019, consisting of the directors report and the financial statements, gives a true and fair view of the position as per the balance sheet date 30 June 2019.

The directors further herewith report their arrangements for an audit committee (the "Audit Committee") as follows:

Audit Committee

The Company makes use of the exemption to the requirement to establish its own Audit Committee based on Article 3a of the Royal Decree of 26 July 2008 implementing article 41 of the EU Directive 2006/43EG, as the Audit Committee of JPMorgan Chase & Co. fulfils the requirements at group level. Audit Committee of JPMorgan Chase & Co. covers the Firm, including the Company and is formed of entirely non-management, independent directors in compliance with the recommendations from the EU Commission. Details of the Charter, Membership, Duties and Responsibilities can be found on the Firm's website.

The financial statements on pages 4 to 30 were approved by the Board of Directors on 18 September 2019 and signed on its behalf by:

W.H. Kamphuijs

J.C.P. van Uffelen

Date:

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Balance sheet

	Notes	Unaudited 30 June 2019 $'000	31 December 2018 $'000
Assets			
Non-current assets			
Trade and other receivables	8	2,700,000	3,300,000
Current assets			
Financial assets held at fair value through profit and loss	7	24,951,865	20,591,955
Trade and other receivables	8	150,979	122,977
Cash and cash equivalents	9	5,244,233	2,803,719
Total assets		**33,047,077**	**26,818,651**
Liabilities			
Current liabilities			
Financial liabilities designated at fair value through profit or loss	10	20,742,413	17,420,872
Financial liabilities held at fair value through profit and loss	11	4,209,452	3,171,083
Trade and other payables	13	7,505,857	5,664,636
Current tax liabilities		3,011	1,050
Bank overdraft	9	37,393	20,728
Total liabilities		**32,498,126**	**26,278,369**
Equity			
Capital and reserves attributable to equity shareholders of the Company			
Share capital	14	26	26
Share premium reserve		499,997	499,997
Legal reserve		2	2
Retained earnings		48,926	40,257
Total equity		**548,951**	**540,282**
Total liabilities and equity		**33,047,077**	**26,818,651**

Chamber of Commerce Number: 34259454

The notes on pages 8 - 30 form an integral part of the financial statements.

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Income statement (unaudited)

Six month period ended	Notes	**Unaudited 30 June 2019 $'000**	**Unaudited 30 June 2018 $'000**
Fee and commission income	15	5,580	5,283
Fee and commission expense	15	(4,529)	(4,428)
Administrative expense		(805)	(481)
Net foreign exchange (loss)/gain		(9)	83
Operating profit		**237**	**457**
Net interest income	16	11,276	2,356
Profit before income tax		**11,513**	**2,813**
Income tax expense	17	(2,844)	(754)
Profit for the period attributable to equity shareholders of the Company		**8,669**	**2,059**

The profit for the period resulted from continuing operations.

There were no items of other comprehensive income or expense therefore no statement of comprehensive income has been separately presented.

The notes on pages 8 - 30 form an integral part of the financial statements.

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Statement of changes in equity (unaudited)

	Share capital	Share premium reserve	Legal reserve	Retained earnings	Total equity
	$'000	$'000	$'000	$'000	$'000
Balance at 1 January 2018	**26**	**499,997**	**2**	**34,841**	**534,866**
Profit for the period	—	—	—	2,059	2,059
Balance as at 30 June 2018	**26**	**499,997**	**2**	**36,900**	**536,925**
Balance as at 1 January 2019	**26**	**499,997**	**2**	**40,257**	**540,282**
Profit for the period	—	—	—	8,669	8,669
Balance as at 30 June 2019	**26**	**499,997**	**2**	**48,926**	**548,951**

The notes on pages 8 - 30 form an integral part of the financial statements.

J.P. MORGAN STRUCTURED PRODUCTS B.V.
Statement of cash flows (unaudited)

	Notes	Unaudited 30 June 2019 $'000	Unaudited 30 June 2018 $'000
Cash flow from operating activities			
Profit before income tax		**11,513**	**2,813**
Income tax paid		(882)	(1,422)
Net interest income	16	(11,276)	(2,356)
Net foreign exchange loss/(gain)		9	(83)
		(636)	**(1,048)**
Changes in working capital			
(Increase)/decrease in financial assets held at fair value through profit and loss		(4,359,910)	4,152,641
Decrease/(increase) in trade and other receivables		571,999	(162,566)
Increase/(decrease) in financial liabilities held at fair value through profit and loss		1,038,369	(4,019,595)
Increase/(decrease) in financial liabilities designated at fair value through profit or loss		3,321,540	(133,046)
Increase in trade and other payables		1,841,220	1,298,905
Net cash from operating activities		**2,412,582**	**1,135,291**
Cash flow from investing activities			
Net interest income	16	11,276	2,356
Net cash from investing activities		**11,276**	**2,356**
Net increase in cash and cash equivalents		**2,423,858**	**1,137,647**
Net cash and cash equivalents at the beginning of the period		**2,782,991**	**6,196,099**
Effect of exchange rate changes on cash and cash equivalents		(9)	83
Net cash and cash equivalents at the end of the period	9	**5,206,840**	**7,333,829**

The notes on pages 8 - 30 form an integral part of the financial statements.

1. General information

J.P. Morgan Structured Products B.V. (the "Company") was incorporated on 6 November 2006 as a private company with limited liability and is incorporated and domiciled in The Netherlands, with registration number 34259454. The address of the registered office is at Herikerbergweg 238, Luna ArenA, 1101CM, Amsterdam, The Netherlands. The company's immediate parent undertaking is J.P. Morgan International Finance Limited which is incorporated in the state of Delaware in the United States of America. The company's ultimate parent undertaking of the largest group in which the results of the Company are consolidated is J.P. Morgan Chase & Co. (together with its subsidiaries, the "Firm" or "JPMorgan Chase"), which is also incorporated in the state of Delaware in the United States of America. The parent undertaking of the smallest group in which the Company's results are consolidated is J.P. Morgan International Finance Limited. The largest and the smallest group's consolidated financial statements can be obtained from 25 Bank Street, Canary Wharf, London E14 5JP, England.

The Company's main activity is the issuance of structured products comprising certificates, warrants and market participation notes, and the subsequent hedging ("hedge", "hedging") of the risk associated with these notes through hedging with other JPMorgan Chase companies. The valuation of a structured product will have no impact on the income statement, capital or net assets; as a change in valuation of a structured product will have an equal offsetting change in the value of the hedging transaction with other JPMorgan Chase undertakings.

These financial statements reflect the operations of the Company during the period from 1 January 2019 to 30 June 2019 and have been approved for issue by the Board of Directors on 18 September 2019.

2.1 Accounting convention

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been applied consistently to all the interim periods presented, unless otherwise stated, and the financial statements have been prepared on a going concern basis.

These condensed interim financial statements for the six months ended 30 June 2019 have been prepared in accordance with IAS 34, 'Interim financial reporting', as adopted by the European Union and in accordance with Book 2, Title 9 of the Dutch Civil Code. The condensed interim financial statements should be read in conjunction with the annual financial statements for the year ended 31 December 2018, which have been prepared in accordance with IFRSs as adopted by the European Union. The financial statements have been prepared under the historical cost convention as modified by the revaluation of certain financial assets and financial liabilities measured at fair value through profit or loss.

The preparation of the financial statements in conformity with IFRS required the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Company's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in note 5. Reclassification of and adjustments to prior year amounts have been made to conform with current year presentation and to correctly reflect the nature of the balances so as to provide additional transparency and information in these financial statements.

3. Accounting and reporting developments

Standards adopted during the year ended 31 December 2018

Adoption of IFRS 9

Effective 1 January 2018, the Company adopted IFRS 9 'Financial instruments', which superseded IAS 39 'Financial Instruments Recognition and Measurement'. The adoption of IFRS 9 resulted in changes to the classification and measurement of financial assets including the impairment of financial assets and the presentation of gains and losses related to certain financial liabilities designated at fair value through profit or loss. Refer to note 4 for more information about the changes to the Company's accounting policies.

The requirements of IFRS 9 have been applied effectively from 1 January 2018. As permitted by the transition provisions of IFRS 9, the Company elected not to restate comparative periods.

The adoption of IFRS 9 has resulted in no material impact to the Company.

Adoption of IFRS 15

Effective 1 January 2018, the Company adopted IFRS 15 'Revenue from Contracts with Customers' ("IFRS 15"). IFRS 15 requires that revenue from contracts with customers be recognised upon transfer of control of a good or service in the amount of consideration expected to be received. IFRS 15 also changes the accounting for certain contract costs, including whether they may be offset against revenue in the income statement, and requires additional disclosures about revenue and contract costs.

IFRS 15 permits adoption using a full retrospective approach or a modified, cumulative effect approach wherein the guidance is applied only to existing contracts as of the date of adoption, and to new contracts transacted after that date. The Company adopted IFRS 15 using the full retrospective method.The adoption of IFRS 15 did not result in any material changes in the timing of recognition or in the presentation of the Company's revenue.

4. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been applied consistently to all the years presented, unless otherwise stated.

4.1 Foreign currency translation

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

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

4.2 Functional and presentation currency

Items included in the financial statements of the Company are measured using the currency of the primary economic environment in which the entity operates (the "functional currency”).

U.S. dollars is considered as the functional and presentation currency of the Company.

4.3 Financial instruments

On adoption of IFRS 9 on 1 January 2018, the Company replaced or substantially revised its accounting policies for classification and measurement of financial assets and financial liabilities, and impairment of financial assets. IFRS 9 also significantly amends other standards dealing with financial instruments such as IFRS 7 'Financial Instruments: Disclosures' ("IFRS 7"). The IFRS 7 disclosures have only been applied to the current period. The comparative period notes disclosures repeat those disclosures made in the prior year.

These new or revised policies are set out in the following table along with the corresponding policy under IAS 39. Because the Company elected not to restate comparative periods on adoption of IFRS 9, the IAS 39 policies should be used to understand the differences in accounting policies with the comparative prior period information presented in these financial statements.

4.3.1 Financial assets and financial liabilities

IFRS 9	**IAS 39**
Financial assets and financial liabilities	
i. Recognition of financial assets and financial liabilities	
The Company recognises financial assets and financial liabilities when it becomes a party to the contractual provisions of the instrument. Regular way purchases and sales of financial assets are recognised using trade-date accounting.	The Company recognises derivatives on its balance sheet when it becomes a party to the contractual provisions of the instruments. Loans and receivables and financial liabilities at amortised cost are recognised when the Company becomes a party to the contractual provisions of the instrument. Regular way purchases and sales of financial assets are recognised on the trade-date, the date on which the Company commits to purchase or sell the asset.
ii. Classification and measurement of financial assets and financial liabilities	
On initial recognition, financial assets are classified as measured at amortised cost, fair value through other comprehensive income or fair value through profit or loss. The classification is based on both the business model for managing the financial assets and their contractual cash flow characteristics. Factors considered by the Company in determining the business model for a group of assets include past experience on how the cash flows for these assets were collected, how the assets’ performance is evaluated and reported to key management personnel, how risks are assessed and managed, and how managers are compensated. On initial recognition, financial liabilities are classified as measured at either amortised cost or fair value through profit or loss.	The Company classifies its financial assets and financial liabilities in the following categories on initial recognition: Financial assets and financial liabilities held for trading, financial assets and financial liabilities designated at fair value through profit or loss, and loans and receivables and financial liabilities held at amortised cost.

4. Summary of significant accounting policies (continued)

4.3.1 Financial assets and financial liabilities (continued)

IFRS 9	IAS 39
Financial assets and financial liabilities	
Financial assets and financial liabilities measured at amortised cost	Loans and receivables and financial liabilities at amortised cost
Financial assets are measured at amortised cost if they are held under a business model with the objective to collect contractual cash flows ("Hold to Collect") and they have contractual terms under which cash flows are solely payments of principal and interest ("SPPI"). In making the SPPI assessment, the Company considers whether the contractual cash flows are consistent with a basic lending arrangement (i.e., interest includes only consideration for the time value of money, credit risk, other basic lending risks and a profit margin that is consistent with a basic lending arrangement). Where the contractual terms introduce exposure to risk or volatility that are inconsistent with a basic lending arrangement, the related financial asset is classified and measured at fair value through profit or loss. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest. As a result of the application of these criteria, only debt financial assets are eligible to be measured at amortised cost. Financial assets measured at amortised cost include trade and other receivables and cash and cash equivalents. Financial liabilities are measured at amortised cost unless they are held for trading or are designated as measured at fair value through profit or loss. Financial liabilities measured at amortised cost include trade and other payables and bank overdraft. Financial assets and financial liabilities measured at amortised cost are initially recognised at fair value including transaction costs. The initial amount recognised is subsequently reduced for principal repayments and for accrued interest using the effective interest method. In addition, the carrying amount of financial assets is adjusted by recognising an expected credit loss allowance through to profit or loss. The effective interest method is used to allocate interest income or interest expense over the relevant period. The effective interest rate is the rate that discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability or a shorter period when appropriate, to the net carrying amount of the financial asset or financial liability. The effective interest rate is established on initial recognition of the financial asset or financial liability. The calculation of the effective interest rate includes all fees and commissions paid or received, transaction costs, and discounts or premiums that are an integral part of the effective interest rate. Transaction costs are incremental costs that are directly attributable to the acquisition, issuance or disposal of a financial asset or financial liability.	Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market except those that are classified as held for trading or designated at fair value through profit or loss. Loans and receivables include trade and other receivables and cash and cash equivalents. Loans and receivables are initially recognised at fair value including directly related incremental transaction costs. They are subsequently measured at amortised cost, including any provision for impairment losses. Interest is recognised in the income statement as 'interest and similar income' using the effective interest rate method. Financial liabilities include include trade and other payables and bank overdraft and are recognised initially at fair value including directly related incremental transaction costs and subsequently measured at amortised cost using the effective interest method. The effective interest method is used to calculate the amortised cost of a financial asset or financial liability (or a group of financial assets or financial liabilities). It is a method of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. The effective interest rate is established on initial recognition of the financial asset or financial liability. The calculation of the effective interest rate includes all fees and commissions paid or received, transaction costs, and discounts or premiums that are an integral part of the effective interest rate. Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or financial liability.

4. Summary of significant accounting policies (continued)

IFRS 9	**IAS 39**
Financial assets and financial liabilities	
Financial assets and financial liabilities measured at fair value through profit or loss	Financial assets and financial liabilities held for trading
Financial assets and financial liabilities are measured at fair value through profit or loss ("FVTPL") if they are held for trading. Under IFRS 9, a financial asset or a financial liability is defined as “held for trading” if it is acquired or incurred principally for the purpose of selling or re-purchasing it in the near term, or forms part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking or it is a derivative. However, such financial instruments are used by the Company predominantly in connection with its "client-driven” market-making and/or for hedging certain assets, liabilities, positions, cash flows or anticipated transactions (i.e. risk management activities). Financial assets and financial liabilities held for trading comprise both debt and equity securities, derivatives, warrants, and the related unrealised gains and losses. In addition, certain financial assets that are not held for trading are measured at FVTPL if they are do not meet the criteria to be measured at amortised cost or FVOCI. For example, if the financial assets are managed on a fair value basis, have contractual cash flows that are not SPPI or are equity securities. The Company did not elect to measure any equity instruments at FVOCI. Financial instruments measured at FVTPL are initially recognised at fair value in the balance sheet. Transaction costs and any subsequent fair value gains or losses are recognised in profit or loss as they arise. The Company manages cash instruments, in the form of debt and equity securities, and derivatives on a unified basis, including hedging relationships between cash securities and derivatives. Accordingly the Firm reports the gains and losses on the cash instruments and the gains and losses on the derivatives on a net basis in trading profits.	The Company considers a financial asset or financial liability as held for trading if it is acquired or incurred principally for the purpose of selling or re-purchasing it in the near term, or forms part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking or it is a derivative. Financial assets and financial liabilities held for trading comprise both debt and equity securities, loans and derivatives. These instruments are either held for trading purposes or used for hedging certain assets, liabilities, positions, cash flows or anticipated transactions. Included in financial assets held for trading and financial liabilities held for trading, are unrealised trading gains and losses. Financial instruments held for trading are initially recognised at fair value in the balance sheet with transaction costs being recorded in profit or loss and any gains or losses are taken directly to the income statement. Subsequently, they are measured at fair value with movement included in trading profit and loss. The Firm manages cash instruments, in the form of debt and equity securities, and derivatives on a unified basis as part of the trading strategy, including hedging relationships between cash securities and derivatives. Accordingly the Firm reports the gains and losses on the cash instruments and the gains and losses on the derivatives on a net basis in trading profits.

4. Summary of significant accounting policies (continued)

4.3.1 Financial assets and financial liabilities (continued)

IFRS 9	IAS 39
Financial assets and financial liabilities	
Financial assets and financial liabilities designated at fair value through profit or loss	Financial assets and financial liabilities designated at fair value through profit or loss
Subject to certain criteria, the Company can designate financial assets and financial liabilities to be measured at fair value through profit or loss. Designation is only possible when the financial instrument is initially recognised and cannot subsequently be reclassified. Financial assets can be designated as measured at fair value through profit or loss only if such designation eliminates or significantly reduces a measurement or recognition inconsistency. Financial liabilities can be designated as measured at fair value through profit or loss only if such designation (a) eliminates or significantly reduces a measurement or recognition inconsistency; or (b) applies to a group of financial assets, financial liabilities or both that the Company manages and evaluates on a fair value basis; or (c) relates to an instrument that contains an embedded derivative unless the embedded derivative does not significantly modify the cash flows required by the contract or when a similar hybrid instrument is considered that separation of the embedded derivative is prohibited. Financial assets and financial liabilities that the Company designates as measured at fair value through profit or loss are recognised at fair value at initial recognition, with transaction costs being recognised in profit or loss and subsequently measured at fair value. Gains and losses on financial assets and financial liabilities designated at fair value through profit or loss are recognised in profit or loss as they arise. Changes in the fair value of financial assets designated as measured at FVTPL are recognised immediately in the income statement. Changes in the fair value of financial liabilities designated as measured at FVTPL are recognised in profit or loss.	Financial assets and financial liabilities that the Company designates on initial recognition as being at fair value through profit or loss are recognised at fair value, with transaction costs being recognised in profit or loss and subsequently measured at fair value. Gains and losses on financial assets and financial liabilities that are designated at fair value through profit or loss are recognised in profit or loss as they arise. A financial instrument may only be designated at inception as held at fair value through profit or loss and cannot subsequently be reclassified. Financial assets or financial liabilities are designated at fair value through profit or loss only if such designation (a) eliminates or significantly reduces a measurement or recognition inconsistency; or (b) applies to a group of financial assets, financial liabilities or both that the Company manages and evaluates on a fair value basis; or (c) relates to an instrument that contains an embedded derivative unless the embedded derivative does not significantly modify the cash flows required by the contract or when a similar hybrid instrument is considered that separation of the embedded derivative is prohibited.

4.3.2 Interest income and expense

IFRS 9	IAS 39
Interest income and interest expense	**Interest income and interest expense**
Unless a financial asset is credit-impaired, interest income is recognised by applying the effective interest method to the carrying amount of a financial asset before adjusting for any allowance for expected credit losses. If a financial asset is credit-impaired, interest income is recognised by applying the effective interest rate to the carrying amount of the financial asset including any allowance for expected credit losses. Interest expense on financial liabilities is recognised by applying the effective interest method to the amortised cost of financial liabilities. Interest income and expense on financial assets and financial liabilities measured at amortised cost and FVOCI are presented separately from financial instruments measured at FVTPL.	Interest income and expense are recognised on an effective interest rate basis. All contractual terms of a financial instrument are considered when estimating future cash flows.

4. Summary of significant accounting policies (continued)

4.3.3 Trading profit

IFRS 9	IAS 39
Trading profit	**Trading profit**
Profits and losses resulting from the purchase and sale of securities and the revaluation of financial instruments are recognised in trading profit on a trade-date basis, including related transaction costs and the associated interest.	Profits and losses resulting from the purchase and sale of securities and the revaluation of financial instruments are recognised as trading gains or losses on a trade-date basis, including related transaction costs but excluding the associated interest.

4.3.4 Impairment of financial assets

IFRS 9	IAS 39
Impairment of financial assets	**Impairment of financial assets**
The Company recognises ECL for financial assets that are measured at amortised cost. Provisions for ECL are recognised on initial recognition of the financial instrument based on expectations of credit losses at that time. The credit loss allowance includes ECLs for financial instruments that may default in the next 12-month period for financial instruments that have not observed a significant increase in credit risk since initial recognition (“stage 1”) or over a lifetime period for financial instruments that have observed a significant increase in credit risk since initial recognition (“stage 2”). The allowance also includes lifetime ECLs for financial instruments where there is objective evidence of credit-impairment at the reporting date (“stage 3”). In determining the appropriate stage for a financial instrument, the Company applies the definition of default consistent with the Basel definition of default to maintain uniformity of the definition across the Firm. The determination of the stage for credit losses under the ECL model is dependent on the measurement of a significant increase in credit risk (‘SICR’). In determining SICR, the Company has conducted quantitative tests, which considers, but is not limited to, existing risk management indicators, credit rating changes and reasonable and supportable forward-looking information. Forward-looking information reflects a range of scenarios that incorporate macro-economic factors that are composed and monitored by the Firmwide specialised economic forecasting team. The key input components for the quantification of expected credit loss through the ECL model includes the probability of default (“PD”), loss given default (“LGD”) and exposure at default (“EAD”). The Company seeks to efficiently and effectively leverage as much as possible existing regulatory and capital frameworks.	The Company assesses at each balance sheet date whether there is any objective evidence that a financial asset or portfolio 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 event (or events) 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 and receivables are measured as the difference between the financial asset’s carrying amount and the present value of the estimated future cash flows discounted at the financial asset’s 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 receivables when the Company 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 receivables at the balance sheet date. These provisions are adjusted on a monthly basis by an appropriate charge or reversal of the provision following an assessment of the loans and receivables portfolio. Impairment provisions are determined by modelling the current exposure, taking into account such factors as duration and probabilities of default. If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss shall be reversed in the income statement. The amount of reversal shall not result in a carrying amount of the financial asset that exceeds what the amortised cost would have been had the impairment not been recognised at the date the impairment is reversed.

4. Summary of significant accounting policies (continued)

4.4 Fair value

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

Fair values are determined by reference to observable market prices where available and reliable. Fair values of financial assets and financial liabilities are based on quoted market prices or dealer price quotations for financial instruments traded in active markets. Where market prices are unavailable, fair value is based on valuation models that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters, including but not limited to yield curves, interest rates, volatilities, equity or debt prices, foreign exchange rates and credit curves. Valuation adjustments may be made to ensure that financial instruments are recorded at fair value.

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

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

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

Further details on fair value measurements are provided in note 12 to the financial statements.

4.5 Fee and commission income and expense

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

4.6 Derecognition of financial assets and financial liabilities

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

a) the Company has transferred substantially all the risks and rewards of ownership of the asset; or

b) the Company has neither retained nor transferred substantially all of the risks and rewards; but has relinquished control of the asset.

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

4.7 Recognition of deferred day one profit and loss

The Company enters into transactions where fair value is determined using valuation models for which not all inputs are market observable prices or rates. Such a financial instrument is initially recognised at the transaction price, although the value obtained from the relevant valuation model may differ. The difference between the transaction price and the model value, commonly referred to as 'day one profit and loss', is not recognised immediately in the income statement when based on significant unobservable inputs.

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

4.8 Cash and cash equivalents

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

4.9 Share capital

The share capital of the Company consists of ordinary shares, classified as equity.

4. Summary of significant accounting policies (continued)

4.10 Current and deferred income tax

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

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

5. Critical accounting estimates and judgements

The preparation of financial statements generally requires management to make judgements, estimates and assumptions that affect the amounts recognised in the financial statements. The nature of estimation means that actual outcomes could differ from those estimates. The following judgements have had the most significant effect on amounts recognised in the financial statements:

Fair value measurement

The Company carries a significant portion of its assets and liabilities at fair value on a recurring basis. Estimating fair value often requires the application of judgement. The type and level of judgement required is largely dependent on the amount of observable market information available to the Company. For instruments valued using internally developed models that use significant unobservable inputs that are classified within level 3 of the valuation hierarchy, judgements used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate model to use. Second, the lack of observability of certain significant inputs requires management to assess all relevant empirical data in deriving valuation inputs - including, for example, transaction details, yield curves, interest rates, prepayment rates, default rates, volatilities, correlations, equity or debt prices, valuations of comparable instruments, foreign exchange rates and credit curves. For further discussion of the valuation of level 3 instruments, including unobservable inputs used, see note 12.

For instruments classified in levels 2 and 3, management judgement must be applied to assess the appropriate level of valuation adjustments, the Company's credit-worthiness, market funding rates, liquidity considerations, unobservable parameters, and for portfolios that meet specified criteria, the size of the net open risk position. The judgements made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole. For further discussion of valuation adjustments applied by the Company, see note 12.

The use of methodologies or assumptions different than those used by the Company could result in a different estimate of fair value at the reporting date. For a detailed discussion of the Company's valuation process and hierarchy, its determination of fair value for individual financial instruments, and the potential impact of using reasonable possible alternative assumptions for the valuations, see note 12.

6. Segmental analysis

The Company's activities comprise only one business segment, namely Corporate and Investment Banking services. The Company issues structured notes, of which the majority are issued within EMEA. All fee and commission income is received from JPMorgan Chase undertakings within the EMEA region.

7. Financial assets held at fair value through profit and loss

	Unaudited 30 June 2019	31 December 2018
	$'000	$'000
Financial assets held at fair value through profit and loss	24,951,865	20,591,955

Financial assets held at fair value through profit and loss include derivatives and fully funded OTC financial instruments with other JPMorgan Chase undertakings, see note 12.

Credit valuation adjustments ("CVA") are necessary to reflect counterparty credit quality in the valuation of assets measured at fair value.

8. Trade and other receivables

	Unaudited 30 June 2019	31 December 2018
	$'000	$'000
Trade and other receivables: amounts falling due after one year		
Amounts owed by JPMorgan Chase undertakings	2,700,000	3,300,000
	2,700,000	**3,300,000**
Trade receivables	57,729	114,649
Amounts owed by JPMorgan Chase undertakings	93,250	8,328
	150,979	**122,977**

The majority of amounts within trade and other receivables were not past due or impaired as at 30 June 2019 and 31 December 2018.

9. Net cash and cash equivalents

	Unaudited 30 June 2019	31 December 2018
	$'000	$'000
Cash held with JPMorgan Chase undertakings	5,188,623	2,710,496
Cash held with third parties	55,610	93,223
	5,244,233	**2,803,719**
Bank overdraft		
Balances due to JPMorgan Chase undertakings	(21,659)	(18,129)
Balances due to third parties	(15,734)	(2,599)
	(37,393)	**(20,728)**
Net cash and cash equivalents as reported for the period/year	**5,206,840**	**2,782,991**

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

	Unaudited 30 June 2019	31 December 2018
	$'000	$'000
Financial liabilities designated at fair value through profit or loss	20,742,413	17,420,872

Financial liabilities designated at fair value through profit and loss include short term and long term structured notes. In certain instances, the customers have the rights to exercise put options. Other securities include early redemption clauses. As a result, the notes have been disclosed as having a maturity within one year in the table above. The contractual payments associated with the notes issued by the Company are predominantly guaranteed by JPMorgan Chase Bank, N.A. and may be repayable on customer demand. The details of each note are set out in the prospectus for each issuance.

Debit valuation adjustments are necessary to reflect the credit quality of the Firm in the valuation of such liabilities. The directors consider that the Company is fully hedged and that there would, in the normal course of business, be no impact to the results of the Company due to movements in the fair value of the financial liabilities designated at fair value through profit or loss.

10. Financial liabilities designated at fair value through profit or loss (continued)

The amount of change attributable to changes in its own credit and funding risk in the financial liabilities designated at fair value through profit or loss and held at fair value through profit and loss for the period ended 30 June 2019 is a gain of $42.7 million (2018: gain of $236.2 million). This is fully offset by an equal and opposite amount in financial assets held at fair value through profit and loss (refer to note 7).

11. Financial liabilities held at fair value through profit and loss

	Unaudited 30 June 2019	31 December 2018
	$'000	$'000
Financial liabilities held at fair value through profit and loss	4,209,452	3,171,083

12. Assets and liabilities measured at fair value

Valuation process

The Company carries a portion of its assets and liabilities at fair value on a recurring basis.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is based on quoted market prices or inputs, where available. If prices or quotes are not available, fair value is based on valuation models and other valuation techniques that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters, including yield curves, interest rates, volatilities, equity or debt prices, foreign exchange rates, and credit curves.

The level of precision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Company believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgement and may vary across the Company's businesses and portfolios. The use of different methodologies or assumptions to those used by the Company could result in a different estimate of fair value at the reporting date.

Risk-taking functions are responsible for providing fair value estimates for assets and liabilities carried on the balance sheet at fair value. The Firm's valuation control function, which is part of the Firm's Finance function and independent of the risk-taking functions, is responsible for verifying these estimates and determining any fair value adjustments that may be required to ensure that the Firm's positions are recorded at fair value. The valuation control function verifies fair value estimates provided by the risk-taking functions by leveraging independently derived prices, valuation inputs and other market data, where available.

Debit valuation adjustments ("DVA") are taken to reflect the credit quality of the Company in the valuation of liabilities measured at fair value. The Firm also incorporates the impact of funding in its valuation estimates where there is evidence that a market participant in the principal market would incorporate it in a transfer of the instrument.

Credit valuation adjustments ("CVA") are necessary to reflect counterparty credit quality in the valuation of assets measured at fair value.

Valuation model review and approval

If prices or quotes are not available for an instrument or a similar instrument, fair value is generally determined using valuation models that consider relevant transaction data such as maturity and use as inputs market-based or independently sourced parameters. The Model Risk function is independent of the model owners and reviews and approves valuation models used by the Company. The Model Risk Governance and Review function is independent of the model owners and reviews and approves valuation models used by the Company.

Fair value hierarchy

The Company classifies its assets and liabilities according to a valuation hierarchy that reflects the observability of significant market inputs. The three levels are defined as follows:

Level 1 - inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 - inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

12. Assets and liabilities measured at fair value (continued)

Fair value hierarchy (continued)

Level 3 - one or more inputs to the valuation methodology are unobservable and significant to the fair value measurement.

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

Valuation methodologies

The following table describes the valuation methodologies used by the Firm to measure its more significant products/ instruments at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Product/instrument	Valuation methodology, inputs and assumptions	Classifications in the valuation hierarchy
Structured notes	• Valuations are based on discounted cash flow analysis that consider the embedded derivative and the terms and payment structure of the note. • The embedded derivative features are considered using models such as the Black-Scholes option pricing model, simulation models, or a combination of models that use observable or unobservable valuation inputs, depending on the embedded derivative. The specific inputs used vary according to the nature of the embedded derivative features, as described in the discussion below regarding derivative valuation. Adjustments are then made to this base valuation to reflect the Firm's own credit risk (DVA).	Level 2 or 3
Equity securities	Quoted market prices are used where available.	Level 1
Derivatives and fully funded OTC financial instruments	Derivatives that are valued using models such as the Black-Scholes option pricing model, simulation models, or a combination of models, that use observable or unobservable valuation inputs as well as considering the contractual terms. The key valuation inputs used will depend on the type of derivative and the nature of the underlying instruments and may include equity prices, commodity prices, interest rate yield curves, foreign exchange rates, volatilities, correlations, credit default swaps ("CDS") spreads and recovery rates. Additionally, the credit quality of the counterparty and of the Firm's as well as market funding levels may also be considered.	Level 2 or 3

The following tables present the assets and liabilities reported at fair value as of 30 June 2019 and 31 December 2018, by major product category and fair value hierarchy.

Assets and liabilities measured at fair value on a recurring basis

	Level 1	Level 2	Level 3	Total
	$'000	$'000	$'000	$'000
Unaudited at 30 June 2019				
Financial assets held at fair value through profit and loss:				
Financial assets held at fair value through profit and loss	248,687	13,539,782	11,163,396	24,951,865
Total financial assets	248,687	13,539,782	11,163,396	24,951,865
Financial liabilities held at fair value through profit and loss:				
Financial liabilities held at fair value through profit and loss	—	(3,818,382)	(391,070)	(4,209,452)
Financial liabilities designated at fair value through profit or loss:				
Structured notes	—	(10,802,817)	(9,939,596)	(20,742,413)
Total financial liabilities	—	(14,621,199)	(10,330,666)	(24,951,865)

12. Assets and liabilities measured at fair value (continued)

Assets and liabilities measured at fair value on a recurring basis **(continued)**

	Level 1	Level 2	Level 3	Total
	$'000	$'000	$'000	$'000
At 31 December 2018				
Financial assets held at fair value through profit and loss:				
Financial assets held at fair value through profit and loss	268,677	10,115,674	10,207,604	20,591,955
Total financial assets	268,677	10,115,674	10,207,604	20,591,955
Financial liabilities held at fair value through profit and loss:				
Financial liabilities held at fair value through profit and loss	—	(2,653,576)	(517,507)	(3,171,083)
Financial liabilities designated at fair value through profit or loss:				
Structured notes	—	(8,807,190)	(8,613,682)	(17,420,872)
Total financial liabilities	—	(11,460,766)	(9,131,189)	(20,591,955)

The Company hedges all structured note issuances by entering into hedging transactions with other JPMorgan Chase companies. The hedging transactions can be booked as multiple elements in order to ensure the risk associated with the notes is fully hedged. Each of these elements is classified in the fair value hierarchy in line with the requirements of IFRS 13 'Fair Value Measurement', and as such the fair value hierarchy of the structured notes and hedges can differ.

12. Assets and liabilities measured at fair value (continued)

Level 3 valuations

The Firm has established well structured processes for determining fair value, including for instruments where fair value is estimated using significant unobservable inputs (level 3).

Estimating fair value requires the application of judgement. The type and level of judgement required is largely dependent on the amount of observable market information available to the Company. For instruments valued using internally developed valuation models and other valuation techniques that use significant unobservable inputs are classified within level 3 of the fair value hierarchy, judgements used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2. In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate valuation model or other valuation technique to use.

The following table presents the Company's primary level 3 financial instruments, the valuation techniques used to measure the fair value of those financial instruments, the significant unobservable inputs, the range of values for those inputs and, for certain instruments, the weighted averages of such inputs. While the determination to classify an instrument within level 3 is based on the significance of the unobservable inputs to the overall fair value measurement, level 3 financial instruments typically include observable components (that is, components that are actively quoted and can be validated to external sources) in addition to the unobservable components.

The range of values presented in the table is representative of the highest and lowest level input used to value the significant groups of instruments within a product/ instrument classification. Where provided, the weighted averages of the input values presented in the table are calculated based on the fair value of the instruments that the input is being used to value.

In the Company's view, the input range and the weighted average value do not reflect the degree of input uncertainty or an assessment of the reasonableness of the Company's estimates and assumptions. Rather, they reflect the characteristics of the various instruments held by the Company and the relative distribution of instruments within the range of characteristics. For example, two option contracts may have similar levels of market risk exposure and valuation uncertainty, but may have significantly different implied volatility levels because the option contracts have different underlyings, tenors, or strike prices.

The input range and weighted average values will therefore vary from period-to-period and parameter to parameter based on the characteristics of the instruments held by the Company at each balance sheet date.

Product/instrument	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values
Unaudited at 30 June 2019	**$'000**	**$'000**	**$'000**			
Derivatives and fully funded OTC financial instruments	11,163,396	(391,070)	10,772,326	Option pricing	Interest rate correlation	(45)% - 97%
					Interest rate spread volatility	16bps - 38bps
					Interest rate - FX correlation	(45)% - 60%
					Equity correlation	20% - 98%
					Equity - FX correlation	(75)% - 61%
					Equity - Interest rate correlation	20% - 60%
					Equity volatility	14% - 57%
Structured notes	—	(9,939,596)	(9,939,596)	Option pricing	Interest rate correlation	(45)% - 97%
					Interest rate spread volatility	16bps - 38bps
					Interest rate - FX correlation	(45)% - 60%
					Equity correlation	20% - 98%
					Equity - FX correlation	(75)% - 61%
					Equity - Interest rate correlation	20% - 60%
					Equity volatility	14% - 57%
Total	**11,163,396**	**(10,330,666)**	**832,730**			

12. Assets and liabilities measured at fair value (continued)

Level 3 valuations (continued)

Product/instrument	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values
At 31 December 2018	**$'000**	**$'000**	**$'000**			
Derivatives and fully funded OTC financial instruments	10,207,604	(517,507)	9,690,097	Option pricing	Interest rate correlation	(45)% - 97%
					Interest rate spread volatility	16bps - 38bps
					Interest rate - FX correlation	(45)% - 60%
					Equity correlation	20% - 98%
					Equity - FX correlation	(75)% - 61%
					Equity - Interest rate correlation	20% - 60%
					Equity volatility	14% - 57%
Structured notes	—	(8,613,682)	(8,613,682)	Option pricing	Interest rate correlation	(45)% - 97%
					Interest rate spread volatility	16bps - 38bps
					Interest rate - FX correlation	(45)% - 60%
					Equity correlation	20% - 98%
					Equity - FX correlation	(75)% - 61%
					Equity - Interest rate correlation	20% - 60%
					Equity volatility	14% - 57%
Total	**10,207,604**	**(9,131,189)**	**1,076,415**			

The categories presented in the tables above have been aggregated based upon the product type, which may differ from their classification on the balance sheet.

Changes in and ranges of unobservable inputs

The following discussion provides a description of the impact on fair value measurement of a change in each unobservable input in isolation, and the interrelationship between unobservable inputs, where relevant and significant. The impact of changes in inputs may not be independent as a change in one unobservable input may give rise to a change in another unobservable input. Where relationships exist between two unobservable inputs, those relationships are discussed below. Relationships may also exist between observable and unobservable inputs (for example, as observable interest rates rise, unobservable prepayment rates decline); such relationships have not been included in the discussion below. In addition, for each of the individual relationships described below, the inverse relationship would also generally apply.

Correlation - Correlation is a measure of the relationship between the movements of two variables (e.g., how the change in one variable influences the change in the other). Correlation is a pricing input for a derivative product where the payoff is driven by one or more underlying risks. Correlation inputs are related to the type of derivative due to the nature of the underlying risks. When parameters are positively correlated, an increase in one parameter will result in an increase in the other parameter. When parameters are negatively correlated, an increase in one parameter will result in a decrease in the other parameter. An increase in correlation can result in an increase or a decrease in a fair value measurement. Given a short correlation position, an increase in correlation, in isolation, would generally result in a decrease in a fair value measurement.

Volatility - Volatility is a measure of the variability in possible returns for an instrument, parameter or market index given how much the particular instrument, parameter or index changes in value over time. Volatility is a pricing input for options, including equity options and interest rate options. Generally, the higher the volatility of the underlying, the riskier the instrument. Given a long position in an option, an increase in volatility, in isolation, would generally result in an increase in a fair value measurement.

12. Assets and liabilities measured at fair value (continued)

Fair value of financial instruments valued using techniques that incorporate unobservable inputs

Price risk from the issued instruments is matched by entering into equal and offsetting OTC transactions with other JPMorgan Chase undertakings so that any price risk is effectively hedged. As at 30 June 2019, the use of alternative inputs would result in no change to the results of the Company. Consequently, no sensitivity analysis for level 3 financial instruments is disclosed.

Movement in Level 3 assets and liabilities

Financial assets held at fair value through profit and loss

	Unaudited 30 June 2019	31 December 2018
	$'000	$'000
At 1 January	**10,207,604**	**7,466,934**
Total loss recognised in income statement *	(460,020)	(1,111,090)
Purchases	5,403,452	6,155,023
Settlements	(3,376,203)	(1,319,332)
Transfers into level 3	177,908	292,789
Transfers out of level 3	(789,345)	(1,276,720)
Total assets at fair value	**11,163,396**	**10,207,604**
Change in unrealised gain related to financial instruments	945,098	10,966

Financial liabilities held at fair value through profit and loss and designated at fair value through profit and loss

	Unaudited 30 June 2019	31 December 2018
	$'000	$'000
At 1 January	**9,131,189**	**8,923,878**
Total (gain)/loss recognised in income statement *	(175,477)	725,676
Purchases	97,753	138,389
Issuances	5,129,962	4,870,090
Settlements	(3,422,974)	(4,385,685)
Transfers into level 3	220,869	320,213
Transfers out of level 3	(650,656)	(1,461,372)
Total assets at fair value	**10,330,666**	**9,131,189**
Change in unrealised gain/(loss) related to financial instruments	942,138	(16,632)

* As explained above, the Company's hedging transactions are booked as multiple elements in order to ensure the risk associated with the notes is fully hedged, and as such the levelling of the structured notes and hedges can differ. The gain/(loss) recognised in the income statement as a result of changes in fair value related to level 3 financial instruments, including any changes to unrealised gain/(loss) is offset by an equal and opposite impact as a result of changes in fair value of the related hedging instruments that are classified across multiple levels.

12. Assets and liabilities measured at fair value (continued)

Transfers between levels for instruments carried at fair value on a recurring basis

For the period ended 30 June 2019, transfers from level 2 to level 3 included the following:

- $178 million of assets driven by reduction in observability of derivatives and fully funded OTC financial instruments.
- $221 million of liabilities driven by a reduction in observability of structured notes.

For the period ended 30 June 2019, transfers from level 3 to level 2 included the following:

- $789 million of assets driven by increase in observability of derivatives and fully funded OTC financial instruments.
- $651 million of liabilities driven by increase in observability of structured notes.

During the year ended 31 December 2018, transfers from level 2 to level 3 included the following:

- $293 million of assets driven by reduction in observability of derivatives and fully funded OTC financial instruments.
- $320 million of liabilities driven by a reduction in observability of structured notes.

During the year ended 31 December 2018, transfers from level 3 to level 2 included the following:

- $1,277 million of assets driven by increase in observability of derivatives and fully funded OTC financial instruments.
- $1,461 million of liabilities driven by increase in observability of structured notes.

All transfers are assumed to occur at the beginning of the period in which they occur.

Fair value of financial instruments not carried on balance sheet at fair value

Certain financial instruments that are not carried at fair value on balance sheet are carried at amounts that approximate fair value, due to their short term nature and generally negligible credit risk. These instruments include trade and other receivables, cash and cash equivalents, trade and other payables and bank overdraft.

The company has $8,095.2 million (31 December 2018: $6,226.7 million) of financial assets and $7,543.3 million (31 December 2018: $5,685.4 million) of current financial liabilities that are not measured at fair value. Given the short-term nature of these instruments, their carrying amounts in the balance sheet are a reasonable approximation of fair value.

Offsetting financial assets and financial liabilities

No financial assets and liabilities have been offset in the balance sheet as at 30 June 2019 (31 December 2018: nil).

Financial instruments, recognised within financial assets and liabilities held at fair value through profit and loss, which were subject to master netting arrangements or other similar agreements but not offset, as at 30 June 2019, amounted to $421.6 million (31 December 2018: $347.0 million).

13. Trade and other payables

	Unaudited 30 June 2019	31 December 2018
	$'000	**$'000**
Trade payables	52,683	118,339
Amounts owed to JPMorgan Chase undertakings	7,453,174	5,546,297
	7,505,857	**5,664,636**

Current year trade and other payables predominantly consist of variation margin received from other JPMorgan Chase undertakings.

14. Share capital

	Unaudited 30 June 2019	31 December 2018
	€'000	€'000
Authorised share capital		
90,000 (2018: 90,000) Ordinary shares of €1.00 each	90	90

	Unaudited 30 June 2019	31 December 2018
	$'000	$'000
Issued and fully paid share capital		
20,000 (2018: 20,000) Ordinary shares of €1.00 each	26	26

In accordance with the requirements of Article 373 Book 2 of the Dutch Civil Code, the Company holds an amount of $2,000 in a legal reserve in respect of revaluation of the Euro denominated share capital. There has been no change in the amount of authorised share capital during the period.

15. Fees and commissions

	Unaudited 30 June 2019	Unaudited 30 June 2018
	$'000	$'000
Net gain/(loss) on financial liabilities designated at FVTPL	1,634,160	237,330
Net (loss)/gain on financial assets and liabilities mandatory at FVTPL	(1,634,160)	(237,330)
	—	—

All fee and commission income is receivable from other JPMorgan Chase undertakings.

All fee and commission expense are paid by other JPMorgan Chase undertakings and reimbursed by the Company.

16. Interest income and expenses

All interest income and expenses are from JPMorgan chase undertakings.

17. Income tax expense

	Unaudited 30 June 2019	Unaudited 30 June 2018
Income tax expense:	$'000	$'000
Current tax	2,864	682
Adjustment in respect of previous years	(20)	72
Tax on profit on ordinary activities	**2,844**	**754**
Profit for the year before tax	**11,513**	**2,813**
Tax calculated at applicable tax rates	2,864	682
Adjustments in respect of previous years	(20)	72
Income tax expense	**2,844**	**754**

The standard tax rate in the Netherlands is 25% (2018: 25%). A tax rate of 19% (2018: 20%) is applied to the first €200,000 (2018: €200,000).

18. Financial risk management

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

JPMorgan Chase's and the Company's risk management framework seeks to mitigate risk and loss to the Firm and Company. The Firm has established processes and procedures intended to identify, measure, monitor, report and analyse the types of risk to which the Firm is subject. However, as with any risk management framework, there are inherent limitations to the Firm's risk management strategies because there may exist, or develop in the future, risks that the Firm has not appropriately anticipated or identified.

The Company exercises oversight through the Board of directors which are aligned to the Firm risk management framework and regulatory requirements.

A substantial majority of these risks, which arise from the structured products issued by the Company are offset by simultaneously entering into equal and offsetting Over the Counter ("OTC)" transactions with other JPMorgan Chase undertakings so that all such risks are effectively hedged.

Risk Summary

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

A detailed description of the policies and processes adopted by the Firm may be found within the JPMorgan Chase & Co. 2018 Annual Report on Form 10-K. The report is available at https://jpmorganchaseco.gcs-web.com/financial-information/sec-filings

Credit risk

Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer. 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 Chief Risk Officer ("CRO").

Risk measurement

Expected credit loss measurement

Approach to measuring expected credit losses

The Company estimates credit impairment through an allowance for expected credit losses ("ECLs"). ECLs are recognised for financial assets that are measured at amortised cost. The measurement of ECLs must reflect:

(a) An unbiased and probability weighted amount that is determined by evaluating a range of possible outcomes;

(b) The time value of money; and

(c) Reasonable and supportable information about past events, current economic conditions, and forecasts of future economic conditions.

The measurement of ECL also reflects how the Company manages the financial instruments it uses for credit risk purposes such as Traditional Credit Products ("TCP"), and non-traditional credit products ("Non-TCP"). The Company does not hold any TCP instruments. Non-TCP consist of debt financial assets measured at amortised cost which include trade and other receivables and cash instruments.

The following table sets out the balances of the Company's financial assets that are measured at amortised cost within the Non-TCP category:

Balance sheet categories	Non-TCP
	$'000
Assets	
Trade and other receivables	2,850,979
Cash and cash equivalents	5,244,233

Off-balance sheet lending-related commitments which are categorised as TCP is reported in provisions for liabilities and are not included in the table above.

For Non-TCPs, the Company utilises a combination of an established provision matrix, as well as quantitative and qualitative considerations to estimate ECLs.

18. Financial risk management (continued)

Credit risk (continued)

Risk measurement (continued)

Expected credit loss measurement (continued)

Approach to measuring expected credit losses (continued)

During the year, the Company recognised no ECL on non-TCP balances as the ECL related to these exposures is assessed as immaterial. The Company's approach to measuring ECLs for Non-TCP portfolios depends on the type of instrument. Refer to the Credit exposures section for an analysis per balance sheet line item.

Credit exposures

Balance sheet exposure by financial asset

The table below presents the Company's gross balance sheet exposure to financial assets without taking account of any collateral or economic hedges in place.

	Unaudited 30 June 2019	**31 December 2018**
	$'000	**$'000**
Financial assets held at fair value through profit and loss	24,951,865	20,591,955
Trade and other receivables	2,850,979	3,422,977
Cash and cash equivalents	5,244,233	2,803,719
	33,047,077	**26,818,651**

Included within the above assets, balances held with other JPMorgan Chase undertakings are $32,663 million (2018: $26,334 million).

Financial assets held at fair value through profit and loss does not include equity securities captured under market risk.

The Company's credit exposures and credit risk mitigants are further described below. As no material ECL allowance is recognised on Non-TCP financial assets, refer below for further discussion.

Trade and other receivables

Trade and other receivables mainly consist of amounts due from brokers/dealers such as failed sales, unsettled cash and amounts due from JPMorgan Chase undertakings.

Failed sale receivables generally have minimal credit risk due to the low probability of default of a clearing organisation default and failure to deliver, the short-term nature of receivables related to securities settlements which are predominately on a delivery versus payment basis.

Unsettled cash receivables relate to cash collateral paid to counterparties in respect of derivative financial instruments. Margin posted in cash is reflected as a receivable from the counterparty and is carried at amortised cost. The Company includes these receivables in Stage 1 due to the robust multi-layered credit protection inherent in the design and operations of the margin posted model.

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

Cash and cash equivalents

The Company places substantially all of its deposits with banks which are of investment-grade. The Company includes cash and cash equivalents in Stage 1 as investment-grade institutions are considered to have high quality credit with low risk of default and therefore a significant increase in credit risk is not deemed probable or material. The Company recognises no allowance on these balances.

18. Financial risk management (continued)

Liquidity risk

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

The Company's issuances are economically hedged with the OTC transactions with other JPMorgan Chase undertakings. To the extent that settlement-related timing differences between issuances and the OTC hedge may result in funding requirements, these are funded by other Firm companies involved in the transactions. The contractual payments associated with the notes issued by the Company are all guaranteed, predominantly by JPMorgan Chase Bank, N.A.

The following table provides details on the maturity of all financial liabilities:

	Unaudited 30 June 2019	31 December 2018
	Less than 1 year	Less than 1 year
	$'000	$'000
Financial liabilities designated at fair value through profit or loss	20,742,413	17,420,872
Financial liabilities held at fair value through profit and loss	4,209,452	3,171,083
Bank overdraft	37,393	20,728
Trade and other payables	7,505,857	5,664,636
	32,495,115	**26,277,319**

Included with the above liabilities, the balances held with other JPMorgan Chase undertakings are $11,202 million (2018:$8,034 million).

Market risk

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

Market Risk, arising from the Company's issuances are economically hedged by equal and offsetting OTC transactions with other Firm companies. Should this change, the Company would be managed as part of the enterprise wide market risk management framework.

Operational risk

Operational risk is the risk associated with inadequate or failed internal processes, people and systems, or from external events and includes compliance risk, conduct risk, legal risk and model risk.

Operational risk is inherent in the Company's activities and can manifest itself in various ways, including fraudulent acts, business interruptions, cybersecurity attacks, inappropriate employee behaviour, failure to comply with applicable laws, and regulations or failure of vendors to perform in accordance with their agreements. These events could result in financial losses, litigation and regulatory fines, as well as other damages to the Company and the Firm. The goal is to keep operational risk at appropriate levels in light of the Company's financial position, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

Risk management

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, Operational Risk Identification and Assessment, Operational Risk Measurement, and Operational Risk Monitoring and Reporting. The Company's approach mirrors the Firmwide approach.

Operational risk can manifest itself in various ways. Operational risk subcategories such as Compliance risk, Conduct risk, Legal risk and Model risk, as well as other operational risks, can lead to losses which are captured through the Firm's operational risk measurement processes. More information on these risk subcategories, where relevant, can be found in the respective risk management sections.

18. Financial risk management (continued)

Cybersecurity risk

Cybersecurity risk is an important, continuous and evolving focus for the Firm and Company. The Firm and Company devotes significant resources to protecting and continuing to improve the security of the Firm and Company's computer systems, software, networks and other technology assets. These security efforts are intended to protect against, among other things, cybersecurity attacks by unauthorised parties to obtain access to confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage. The Firm continues to make significant investments in enhancing its cyberdefense capabilities and to strengthen its partnerships with the appropriate government and law enforcement agencies and other businesses in order to understand the full spectrum of cybersecurity risks in the operating environment, enhance defenses and improve resiliency against cybersecurity threats. The Firm actively participates in discussions of cybersecurity risks with law enforcement, government officials, peer and industry groups, and has significantly increased efforts to educate employees and clients on the topic.

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

To protect the confidentiality, integrity and availability of the Firm and Company's infrastructure, resources and information, the Firm leverages the ORMF to ensure risks are identified and managed within defined corporate tolerances. The Firm's Board of Directors and the Audit Committee are regularly briefed on the Firm's cybersecurity policies and practices and ongoing efforts to improve security, as well as its efforts regarding significant cybersecurity events.

Compliance risk

Compliance risk is the risk of failure to comply with legal or regulatory obligations or code of conduct and standards of self-regulatory organisations applicable to the business activities of the Firm.

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

These compliance risks relate to a wide variety of legal and regulatory obligations, depending on the LOB and the jurisdiction, and include those related to products and services, relationships and interactions with clients and customers, and employee activities. For example, compliance risks include those associated with anti-money laundering compliance, trading activities, market conduct, and complying with the rules and regulations related to the offering of products and services across jurisdictional borders, among others.

Other functions such as Finance (including Tax), Technology and Human Resources provide oversight of significant regulatory obligations that are specific to their respective areas of responsibility.

Compliance has implemented various practices designed to identify and mitigate compliance risk by establishing policies, testing, monitoring, training and providing guidance. The Firm has experienced heightened scrutiny by its regulators of its compliance with regulations, and with respect to its controls and operational processes. The Firm expects that such regulatory scrutiny will continue.

Governance and oversight

Compliance is led by the Firms' Chief Compliance Officer ("CCO") who reports to the Firm's CRO. The regional CCOs, including the EMEA CCO, are part of this structure.

The Firm maintains oversight and coordination of its Compliance Risk Management practices through the Firm's CCO, lines of business CCOs and regional CCOs who implement the Compliance program globally across the lines of business and regions. At a Company level, in the UK the regional CCO is a member of the UK Management Committee (restructured from January 2018 to form the EMEA Management Committee) and the UK Audit & Compliance Committee.

18. Financial risk management (continued)

Compliance risk (continued)

The Firm has in place a Code of Conduct ("Code") which applies to the Company. Each employee is given annual training in respect of the Code and is required annually to affirm his or her compliance with the Code. The Code sets forth the Firm's core principles and fundamental values, including that no employee should ever sacrifice integrity - or give the impression that he or she has. The Code requires prompt reporting of any known or suspected violation of the Code, any internal Firm policy, or any law or regulation applicable to the Firm's business. It also requires the reporting of any illegal conduct, or conduct that violates the underlying principles of the Code, by any of the Firm's employees, customers, suppliers, contract workers, business partners, or agents. Specified employees are specially trained and designated as "code specialists" who act as a resource to employees on Code matters. In addition, concerns may be reported anonymously and the Firm prohibits retaliation against employees for the good faith reporting of any actual or suspected violations of the Code. The Code and the associated employee compliance program are focused on the regular assessment of certain key aspects of the Firm's culture and conduct initiatives.

Reputation risk

Reputation risk is the potential that an action, inaction, transaction, investment or event will reduce trust in the Firm's integrity or competence by its various constituents, including clients, counterparties, customers, investors, regulators, employees, communities or the broader public.

Reputation Risk Management is an independent risk management function that establishes the governance framework for managing reputation risk across the Firm.

The types of events that give rise to reputation risk are broad and could be introduced in various ways, including by the Firm's employees and the clients, customers and counterparties with which the Firm does business. These events could result in financial losses, litigation and regulatory fines, as well as other damages to the Firm. As reputation risk is inherently difficult to identify, manage, and quantify, an independent reputation risk management governance function is critical.

Governance and oversight

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

The Firm's reputation risk governance framework applies to each LOB and Corporate. Each LOB Reputation Risk Office ("RRO") advises their business on potential reputation risk issues and provides oversight of policy and standards created to guide the identification and assessment of reputation risk. LOB Reputation Risk Committees and forums review and assess reputation risk for their respective businesses. Each function also applies appropriate diligence to reputation risk arising from their day-to-day activities. Reputation risk issues deemed significant are escalated to the appropriate LOB Risk Committee and/or to the Firmwide Risk Committee. Annual EMEA Corporate & Investment Bank ("CIB") Reputation Risk Committee update are provided to the EMEA Risk Committee ("ERC").

19. Managed capital

Total equity of $549.0 million (2018: $540.3 million) constitutes the managed capital of the Company, which consists entirely of issued share capital, share premium reserve, legal reserve and retained earnings.

The directors are responsible for setting the objectives, policies and processes relating to the management of the Company's capital and maintain a set of policy documents to assist in discharging their responsibilities.

The Company is not subject to any externally imposed capital requirements.

20. Related party transactions

Related parties comprise:

(a) Directors and shareholders of the Company and companies in which they have an ownership interest;

(b) Other JPMorgan Chase undertakings.

None of the Directors received remuneration from the Company during the period (2018: $nil). The Company did not employ any staff in 2019 or 2018.

The Company's parent undertaking is detailed in note 1. There were no transactions with the parent undertaking during the period.

20. Related party transactions (continued)

Related party transactions, outstanding balances at period end, and income and expenses for the period, relating to normal business activities are as follows:

(i) Outstanding balances at period end

	Unaudited JPMorgan Chase undertakings 30 June 2019 $'000	JPMorgan Chase undertakings 31 December 2018 $'000 (restated)
Financial assets held at fair value through profit and loss	24,681,424	20,315,566
Trade and other receivables	2,793,250	3,308,328
Cash and cash equivalents	5,188,623	2,710,496
Financial liabilities held at fair value through profit and loss*	(3,705,288)	(2,449,951)
Financial liabilities designated at fair value through profit or loss	(21,434)	(19,125)
Trade and other payables	(7,453,174)	(5,546,297)
Bank overdraft	(21,659)	(18,129)

*Prior year amounts have been restated to reflect the change in accounting presentation of certain warrants.

(ii) Income and expenses

	Unaudited JPMorgan Chase undertakings 30 June 2019 $'000	Unaudited JPMorgan Chase undertakings 30 June 2018 $'000
Trading gains/(losses)	788,172	(1,352,410)
Fees and commission income	5,580	5,283
Fees and commission expense	(4,529)	(4,428)
Interest income	11,276	2,356

21. Proposed appropriation of net results

Management propose to appropriate the current year profit to the retained earnings. No dividend was paid or proposed during the year.

By order of the Board of Directors

W.H. Kamphuijs

J.C.P. van Uffelen

Date:

Other Information

Profit appropriation according to the Articles of Association

The Articles of Association of the Company require that the allocation of profits be determined in a general meeting of the shareholders. The Management Board may resolve to pay interim dividends up to an amount which does not exceed the amount of the distributable part of the net assets. Dividends shall be paid after adoption of the annual financial statements from which it appears that payment of dividends is permissible.