# 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 2017

# Interim report for the six month period ended 30 June 2017

Contents	Page
Directors' report	1 - 3
Financial statements:	
Balance sheet	4
Income statements and statement of comprehensive income	5
Statement of changes in equity	6
Statements of cash flows	7
Notes to the financial statements	8 - 22
Other information:	23
Profit appropriation according to the Articles of Association	23
Proposed appropriation of net results	23

# **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 2017.

#### 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 of these risk positions.

#### **Review of business**

During the period, 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, and are either 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. 2016 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 Firm's financial and operational risks and has responsibility for ensuring effective risk management and control.

The financial risks arising from the structured products issued by the Company are matched 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 from the perspective of the Company. The contractual payments associated with the notes issued by the Company are guaranteed by JPMorgan Chase Bank, N.A. Further details on the financial risks of the Company are set out in note 17 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 \$2,540,000 (2016: \$1.362.000).

No dividend was paid or proposed during the period (2016: nil).

## Events after the reporting period

The Directors are not aware of any events or circumstances which have taken place after 30 June 2016 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' report (continued)**

#### **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)
W.H. Kamphuijs (Appointed 1 September 2014)
H.P. de Kanter (Appointed 10 April 2014)
R. Terasawa (Appointed 30 October 2014)

#### 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. The Company is aware that the gender diversity is below the goals as set out in article 2:276 section 2 of the Dutch Civil Code and the Company will pay close attention to gender diversity in the process of recruiting and appointing new Managing Directors.

#### Creditor payment policy

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

The Firm'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:

- 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 2017, and
- b) the annual report for the period ended 30 June 2017, 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 2017.

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. that is compliant with the requirements will fulfil the role of the Company's Audit Committee. JPMorgan Chase & Co. operates an Audit Committee, which 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.

# Directors' report (continued)

The financial statements on pages 4 to 22 were approved by the Board of Directors on	19 September 2017	and signed on its behalf
by:		

	_		
W.H. Kamphuijs	_		
J.C.P. van Uffelen	_		
J.C.F. Vali Ulleleti			
Date:			

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

		Unaudited 30 June 2017	31 December 2016
	Notes	\$'000	\$'000
Assets			
Current assets			
Financial assets held for trading	4	21,505,090	18,791,157
Trade and other receivables	5	301,253	562,456
Current tax asset		_	219
Cash and cash equivalents	6	514,346	607,888
Total assets		22,320,689	19,961,720
Liabilities			
Current liabilities			
Financial liabilities designated at fair value through profit or loss	7	21,505,090	18,791,157
Trade and other payables	10	181,223	210,777
Current tax liabilities		81	_
Bank borrowings	11	101,121	429,152
Total liabilities		21,787,515	19,431,086
Equity			
Capital and reserves attributable to equity shareholders of the Company			
Share capital	12	26	26
Share premium reserve		499,997	499,997
Legal reserve		2	2
Retained earnings		33,149	30,609
Total equity		533,174	530,634
Total liabilities and equity		22,320,689	19,961,720

Chamber of Commerce Number: 34259454

**Income statement (unaudited)** 

Six month period ended		Unaudited 30 June 2017	Unaudited 30 June 2016
	Notes	\$'000	\$'000
Fee and commission income	13	6,703	1,850
Fee and commission expense	13	(2,436)	(1,250)
Administrative expense		(1,076)	(322)
Net foreign exchange (loss)/gain		(64)	7
Operating profit		3,127	285
Net interest income	15	305	1,516
Profit before income tax		3,432	1,801
Income tax expense	16	(892)	(439)
Profit for the period attributable to equity shareholders of the Company		2,540	1,362

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.

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 2017	26	499,997	2	30,609	530,634
Profit for the period	<u> </u>			2,540	2,540
Balance as at 30 June 2017	26	499,997	2	33,149	533,174
Balance as at 1 January 2016	26	499,997	2	28,906	528,931
Profit for the period				1,362	1,362
Balance as at 30 June 2016	26	499,997	2	30,268	530,293

# **Statement of cash flows**

		Unaudited 30 June 2017	Unaudited 30 June 2016
	Notes	\$'000	\$'000
Cash flow from operating activities			
Profit before income tax		3,432	1,801
Income tax paid		(592)	(587)
Net interest income	15	(305)	(1,516)
Net foreign exchange loss/(gain)		64	(7)
		2,599	(309)
Changes in working capital			
Financial assets held for trading		(2,713,933)	(73,987)
Trade and other receivables		261,203	(545)
Financial liabilities designated at fair value through profit or loss		2,713,933	73,987
Trade and other payables		(29,554)	(173,840)
Bank borrowings		(353,387)	
Net cash used in operating activities		(119,139)	(174,694)
Cash flow from investing activities			
Interest received	15	305	1,516
Net cash generated from investing activities		305	1,516
Net decrease in cash and cash equivalents		(118,834)	(173,178)
Net cash and cash equivalents at the beginning of the period		573,938	137,921
Effect of exchange rate changes on cash and cash equivalents		(64)	7
Net cash and cash equivalents at the end of the period	6	455,040	(35,250)

# Notes to 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 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 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 2017 to 30 June 2017 and have been approved for issue by the Board of Directors on 19 September 2017.

#### 2.1 Basis of preparation

These condensed interim financial statements for the six months ended 30 June 2017 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 2016, 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.

## 2.2 Significant accounting policies

The principal accounting policies applied in the preparation of these financial statements are consistent with those adopted by the Company in its annual financial statements for the year ended 31 December 2016. These policies have been applied consistently, unless otherwise stated, and the financial statements have been prepared on a going concern basis.

#### New and amended standards adopted by the Company

There are no IFRS or IFRIC interpretations that are effective for the first time for the financial year beginning on or after 1 January 2017 that would be expected to have a material impact on the Company.

#### New standards, amendments and interpretations not yet adopted

# IFRS 9 'Financial instruments' ("IFRS 9")

IFRS 9 was issued by the International Accounting Standards Board ("IASB") in July 2014 and replaces the existing guidance in IAS 39 'Financial Instruments: Recognition and Measurement' ("IAS 39"). The standard includes a new model for classification and measurement of financial assets and a single, forward-looking Expected Credit Loss ("ECL") impairment model. The standard also requires entities to provide users of financial statements with more informative and relevant disclosures. IFRS 9 is applicable retrospectively, except where otherwise prescribed by transitional provisions of the standard, and is effective for annual periods beginning on or after 1 January 2018.

The impact of the adoption of IFRS 9 is not expected to be significant on the Company.

#### Implementation program

The Firm has a centrally managed IFRS 9 project. Overall governance of the program's implementation is through the IFRS 9 Steering Committee which includes representation from Finance, Corporate Accounting Policy, Risk, Technology and Audit.

#### Classification and Measurement of Financial Assets and Liabilities

IFRS 9 introduces a new 'Business Model Test' and 'Cash Flow Characteristic Test' which is used to determine the classification of financial assets. These tests determine whether the financial asset is measured at amortised cost, fair value through other comprehensive income ("FVOCI") or fair value through profit or loss ("FVTPL").

# Notes to the financial statements (continued)

## 2.2 Significant accounting policies (continued)

Impairment of Financial Assets

IFRS 9 impairment requirements apply to financial assets that are measured at amortised cost or FVOCI, and off balance sheet lending-related commitments.

The determination of impairment losses and allowance will move from an incurred credit loss model under IAS 39, to an expected loss model under IFRS 9, where provisions are taken upon initial recognition of the financial asset based on expectations of potential credit losses. Credit losses are recognised either over a 12-month period ('12-month expected losses') representing financial assets that have not observed a significant increase in credit risk since initial recognition or over a lifetime period ('lifetime expected losses') representing financial assets that have observed a significant increase in credit risk since initial recognition or were considered credit-impaired at the reporting date. IFRS 9 is estimated to result in an increase in the overall level of allowances for credit losses mainly driven by the requirement to record an allowance equal to 12-month expected credit losses.

#### IFRS 15 'Revenue from Contracts with Customers' ("IFRS 15")

IFRS 15 was issued by the IASB in May 2014 for retrospective application in annual periods beginning on or after 1 January 2018. IFRS 15 establishes a framework for determining whether, how much and when revenue is recognised. It replaces existing revenue recognition guidance, including IAS 18 'Revenue'. The Firm is currently assessing and quantifying the impact of IFRS 15 on the financial statements.

There are no other IFRS or IFRIC interpretations that are not yet effective that would be expected to have a material impact on the Company.

## 3. Critical accounting estimates and judgements

The preparation of financial statements in conformity with IFRS requires 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 the same as those applied for the year ended 31 December 2016.

# 4. Financial assets held for trading

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Financial assets held for trading	21,505,090	18,791,157

Financial assets held for trading include derivatives and fully funded OTC financial instruments with other JPMorgan Chase undertakings, see note 8.

## 5. Trade and other receivables

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Trade receivables	193,402	107,260
Amounts owed by JPMorgan Chase undertakings	107,851	455,196
	301,253	562,456

All trade and other receivables are non-interest bearing.

There were no amounts within trade and other receivables that were past due or impaired as at 30 June 2017 (30 June 2016: nil).

# Notes to the financial statements (continued)

## Cash and cash equivalents

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Cash held with JPMorgan Chase undertakings	422,430	586,297
Cash held with third parties	91,916	21,591
	514,346	607,888
Bank borrowings		
Cash held with JPMorgan Chase undertakings	(23,489)	(26,797)
Cash held with third parties	(35,817)	(7,153)
	(59,306)	(33,950)
Cash and cash equivalents as reported for the period/year	455,040	573,938
	Unaudited 30 June 2017	Unaudited 30 June 2016
Cash and cash equivalents as reported in the cash flow statement	455,040	(35,250)

#### Financial liabilities designated at fair value through profit or loss

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Financial liabilities designated at fair value through profit or loss	21,505,090	18,791,157

Financial liabilities designated at fair value through profit and loss include short term and long term structured notes and market participating warrants. 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 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.

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 for the period ended 30 June 2017 is \$54.2 million (2016: \$42.7 million). This is fully offset by an equal and opposite amount in financial assets held for trading (refer to note 4).

# Notes to the financial statements (continued)

#### 8. 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, where available. If listed prices or quotes are not available, fair value is based on models that consider relevant transaction characteristics (such as maturity) and use as inputs observable or unobservable market parameters.

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.

## Fair value hierarchy

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

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

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

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

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

# 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
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 above regarding derivative valuation. Adjustments are then made to this base valuation to reflect the Company's own creditworthiness ("DVA") and to incorporate the impact of funding ("FVA").		Level 2 or 3
Derivatives and fully funded OTC financial	Exchange-traded derivatives that are actively traded and valued using the exchange price.	Level 1
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 (e.g. plain vanilla options and interest rate and credit default swaps). Inputs include:  Contractual terms including the period to maturity Readily observable parameters including interest rates and volatility Credit quality of the counterparty and of the Firm Market funding levels Correlation levels	

# Notes to the financial statements (continued)

# 8. Assets and liabilities measured at fair value (continued)

# Valuation methodologies (continued)

The following tables present the assets and liabilities reported at fair value as of 30 June 2017 and 31 December 2016, 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
413,655	15,778,344	5,313,091	21,505,090
413,655	15,778,344	5,313,091	21,505,090
	(14,714,101)	(6,790,989)	(21,505,090)
_	(14,714,101)	(6,790,989)	(21,505,090)
	<b>\$'000</b> 413,655	\$'000 \$'000  413,655 15,778,344  413,655 15,778,344  — (14,714,101)	\$'000       \$'000         413,655       15,778,344       5,313,091         413,655       15,778,344       5,313,091         —       (14,714,101)       (6,790,989)

	Level 1	Level 2	Level 3	Total
<del>-</del>	\$'000	\$'000	\$'000	\$'000
At 31 December 2016				
Financial assets held for trading:				
Financial assets held for trading	414,318	13,739,415	4,637,424	18,791,157
Total financial assets	414,318	13,739,415	4,637,424	18,791,157
Financial liabilities designated at fair value through profit or loss				
Structured securities and warrants	<u> </u>	(12,471,128)	(6,320,029)	(18,791,157)
Total financial liabilities	_	(12,471,128)	(6,320,029)	(18,791,157)

The Company hedges all structured note issuances by entering into hedging transactions with other JPMorgan Chase companies. On occasions, the hedging transactions are 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.

# Notes to the financial statements (continued)

#### 9. Movements in assets and liabilities measured in Level 3

#### Level 3 valuations

The Firm has established well-documented 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 models 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 model to use.

The following table presents the Firm'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 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.

Unaudited 30 June 2017	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values
	\$'000	\$'000	\$'000			
Derivatives and fully funded OTC financial instruments	5,313,091	(620,604)	4,692,487			
Net interest rate derivative				Option pricing	Interest rate spread volatility Interest rate correlation IR-FX correlation Prepayment speed	3% - 38% (50)% - 97% 60% - 70% 4% - 15%
Net credit derivatives				Discounted cash flows	Credit correlation Credit spread Recovery rate Yield Prepayment speed Conditional default rate Loss severity	35% - 85% 6bps - 1,557bps 20% - 65% 5% - 8% 2% - 14% 2% - 100% 39% - 100%
Net equity derivatives				Option pricing	Equity volatility Equity correlation Equity-FX correlation Equity-IR correlation	15% - 55% (5)% - 90% (50)% - 25% 20% - 35%
Structured notes	_	(6,170,385)	(6,170,385)	) Option pricing	Interest rate spread volatility Interest rate correlation IR-FX correlation Equity correlation Equity-FX correlation Equity-IR correlation	3% - 38% (50)% - 97% (50)% - 70% (5)% - 90% (55)% - 25% 20% - 35%
Total assets and liabilities	5,313,091	(6,790,989)	(1,477,898)	)		

The categories presented in the table have been aggregated based upon product type.

Notes to the financial statements (continued)

# 9. Movements in assets and liabilities measured in Level 3 (continued)

Level 3 valuations (continued)

At 31 December 2016

Product/Instrument	Asset	Liability	Net fair value	Principal valuation technique	Unobservable input	Range of input values	Weighted average
	\$'000	\$'000	\$'000				
Derivatives and fully funded OTC financial	4,637,424	(619,094)	4,018,330	Discounted cash flows	Credit Spread	40bps - 375bps	96bps
instruments					Yield	1% - 17%	9%
					Price	\$0 - \$121	\$91
				Discounted cash flows	Credit correlation	30% - 85%	
				Option pricing	Foreign exchange correlation	(30)% - 65%	
				Option pricing	Equity volatility	20% - 60%	
				Option pricing	Interest rate correlation Interest rate spread volatility	(30)% -100% 3% - 38%	
Structured notes		(5,700,935)	(5,700,935)	Option pricing	Interest rate correlation Interest rate spread volatility	(30)% - 100% 3% - 38%	
					Foreign exchange correlation	(30)% - 65%	
					Equity correlation	(50)% - 80%	
				Discounted cash flows	Credit correlation	30% - 85%	
Total assets and liabilities	4,637,424	(6,320,029)	(1,682,605)				

The categories presented in the table have been aggregated based upon the product type.

# Notes to the financial statements (continued)

#### 9. Movements in assets and liabilities measured in Level 3 (continued)

#### 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.

<u>Yield</u> - The yield of an asset is the interest rate used to discount future cash flows in a discounted cash flow calculation. An increase in the yield, in isolation, would result in a decrease in a fair value measurement.

<u>Credit spread</u> - The credit spread is the amount of additional annualised return over the market interest rate that a market participant would demand for taking exposure to the credit risk of an instrument. The credit spread for an instrument forms part of the discount rate used in a discounted cash flow calculation. Generally, an increase in the credit spread would result in a decrease in a fair value measurement. For loans, credit spreads reflect the credit quality of the obligor and the tenor of the obligation.

<u>Correlation</u> - 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.

<u>Volatility</u> - 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.

#### 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 2017, 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.

# Financial assets held for trading

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
At 1 January	4,637,424	3,454,832
Total gain/(loss) recognised in income statement *	469,499	(176,874)
Purchases	1,988,112	3,891,081
Settlements	(1,738,659)	(2,551,516)
Transfers into level 3	58,154	162,383
Transfers out of level 3	(101,439)	(142,482)
Total assets at fair value	5,313,091	4,637,424
Change in unrealised (loss)/profit related to financial instruments	9,399	110,488

# Notes to the financial statements (continued)

9. Movements in assets and liabilities measured in Level 3 (continued)

Financial liabilities designated at fair value through profit and loss

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
At 1 January	6,320,029	4,935,285
Total gain/(loss) recognised in income statement *	351,222	102,396
Purchases	25,104	13,886
Issuances	3,677,124	4,729,348
Settlements	(3,473,423)	(3,371,836)
Transfers into level 3	153,555	358,493
Transfers out of level 3	(262,622)	(447,543)
Total assets at fair value	6,790,989	6,320,029
Change in unrealised profit/(loss) related to financial instruments	28,501	81,794

<sup>\*</sup> As explained in note 8, 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.

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

For the period ended 30 June 2017, there were no significant transfers between levels 1 and 2.

During the period ended 30 June 2017, there were no significant transfers from level 2 to level 3.

During the period ended 30 June 2017, transfers from level 3 to level 2 included the following:

\$161m of liabilities driven by an increase in observability of structured notes.

#### 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 \$815,599,000 (31 December 2016: \$1,170,344,000) of current financial assets and \$282,344,000 (31 December 2016: \$639,929,000) 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 2017 (31 December 2016: nil).

Financial instruments, recognised within financial assets held for trading and financial liabilities held for trading, which were subject to master netting arrangements or other similar agreements but not offset, as at 30 June 2017, amounted to \$879,145,000 (31 December 2016: \$903,783,000).

# Notes to the financial statements (continued)

# 10. Trade and other payables

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Trade payables	103,654	189,703
Amounts owed to JPMorgan Chase undertakings	77,569	21,074
	181,223	210,777

Trade and other payables mainly consist of unsettled trades. All trade and other payables are non-interest bearing.

#### 11. Bank borrowings

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Bank borrowings	41,815	395,202
Bank overdraft	59,306	33,950
	101,121	429,152

All bank borrowings and \$23,489,000 (2016 : \$26,797,000 ) of bank overdrafts relate to amounts owed to JPMorgan Chase undertakings.

Bank borrowings relate to unsecured daily cash management funding at the Firm's transfer pricing rate.

## 12. Share capital

	Unaudited 30 June 2017	31 December 2016
	€'000	€'000
Authorised share capital		
90,000 Ordinary shares of €1.00 each	90	90

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Issued and fully paid share capital		
20,000 (2015: 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.

# 13. Fees and commissions

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.

# Notes to the financial statements (continued)

#### 13. Fees and commissions (continued)

During the year, certain adjustments were identified in relation to attributions made in prior years from 2009 to 2017. These have been adjusted in the current reporting period resulting in an increase in fees and commission income and trade and other receivables of \$3.1 million.

## 14. Segmental analysis

In the opinion of the directors, 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 the EMEA. All fee and commission income is received from JPMorgan Chase undertakings within the EMEA region.

#### 15. Net interest income

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Interest income	305	1,516

#### 16. Income tax expense

	Unaudited 30 June 2017	Unaudited 30 June 2016
	\$'000	\$'000
Current tax	892	437
Adjustments in respect of prior years	_	
Tax on profit on ordinary activities	892	437
Profit before income tax	3,432	1,801
Tax calculated at applicable tax rates Impact of:	876	439
Adjustments in respect of prior years	16	
Income tax expense	892	439

The standard tax rate in the Netherlands is 25% (2016: 25%). A tax rate of 20% is applied to the first €200,000 (2017: \$218,753, 2016: \$221,590).

# 17. 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 operates within the Firm's risk management framework. The Board of Directors monitors the Company's financial risks and has responsibility for ensuring effective risk management and control.

# Notes to the financial statements (continued)

## 17. Financial risk management (continued)

An overview of the key aspects of risk management is provided below. 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 OTC transactions with other JPMorgan Chase undertakings so that all such risks are effectively hedged.

A detailed description of the policies and processes adopted by the Firm may be found within JPMorgan Chase & Co. 2016 Annual Report of Form 10-K.

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

Risk	Definition
Economic risks	
Credit risk	The risk of loss arising from the default of a customer, client or counterparty.
Liquidity risk	The risk that the Company will be unable to meet its contractual and contingent obligations or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities.
Market risk	The risk of loss arising from potential adverse changes in the value of the Company's assets or liabilities or future results, resulting from changes in market variables such as interest rates, foreign exchange rates and equity prices.
Other core risks	
Operational risk	The risk of loss resulting from inadequate or failed processes or systems, human factors, or due to external events that are neither market nor credit related such as cyber and technology related events.
Reputation risk	The risk that an action, transaction, investment or event will reduce trust in the Company and the Firm's integrity or competence by our various constituents, including clients, counterparties and the broader public.

#### Credit risk

Credit risk refers to the risk of loss arising from the default of a customer, client or counterparty. The Company is exposed to credit risk through lending and capital markets activities. The Company's assets are neither past due nor impaired.

#### 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. As stated above, the Company's credit risk is substantially hedged with other JPMorgan Chase undertakings:

	Unaudited 30 June 2017	31 December 2016
	\$'000	\$'000
Financial assets held for trading	21,505,090	18,791,157
Trade and other receivables	301,253	562,456
Cash and cash equivalents	514,346	607,888
	22,320,689	19,961,501

Included within the above assets, balances held with other JPMorgan Chase undertakings are \$22,035,371 (2016: \$19,832,650).

All financial assets are considered to be of an investment grade, which is considered to be of high quality.

#### Liquidity risk

Liquidity risk is the risk that the Company will be unable to meet its contractual and contingent obligations 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 quaranteed by JPMorgan Chase Bank, N.A.

# Notes to the financial statements (continued)

## 17. Financial risk management (continued)

#### Liquidity risk (continued)

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

	Unaudited 30 June 2017	31 December 2016
	Less than	Less than
	1 year	1 year
	\$'000	\$'000
Financial liabilities designated at fair value through profit or loss	21,505,090	18,791,157
Bank borrowings	101,121	429,152
Trade and other payables	181,223	210,777
	21,787,434	19,431,086

Financial liabilities designated at fair value through profit or loss are typically redeemable on customer demand.

#### Market risk

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

- Interest Rates Interest rate risk primarily results from exposure to changes in the level, slope and curvature of the yield curve and the volatility of interest rates;
- <u>Foreign Exchange Rates</u> Foreign exchange rate risk results from exposure to changes in prices and volatility of currency rates; and
- <u>Equity Prices</u> Equity price risk arises from exposure to changes in prices and volatility of individual equities, equity baskets and equity indices.

The market risks, including price, foreign exchange and interest rates risk, arising from the Company's issuances are economically hedged by equal and offsetting OTC transactions with other Firm companies. There is no significant residual price, foreign exchange risk and interest rate risk in the Company as at 30 June 2017 and 31 December 2016.

The Company has an immaterial cash flow interest rate risk from interest bearing cash and cash equivalents balances.

# **Operational Risk**

Operational risk is the risk of loss resulting from inadequate or failed processes or systems, human factors or due to external events that are neither market- nor credit-related. Operational risk is inherent in the Company's activities and can manifest itself in various ways, including fraudulent acts, business interruptions, failure to comply with applicable laws and regulations or failure of vendors to perform in accordance with their arrangements. These events could result in financial losses, litigation and regulatory fines, as well as other damages to the Company and the Firm. The goal is to keep operational risk at appropriate levels in light of the Company's financial strength, 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 is comprised of four main components: Governance, Risk Assessment, Measurement, and Monitoring and Reporting.

## Cybersecurity risk

The Firm devotes significant resources to protect the security of the Firm and Company's computer systems, software, networks and other technology assets. These security efforts are intended to protect against cybersecurity attacks by unauthorized 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 cyber defence capabilities and to strengthen its partnerships with the appropriate government and law enforcement agencies and other businesses in order to understand the full spectrum of cybersecurity risks in the environment, enhance defences and improve resiliency against cybersecurity threats.

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 as well as its efforts regarding significant cybersecurity events.

# Notes to the financial statements (continued)

#### 17. Financial risk management (continued)

#### Reputation risk

Reputation risk is the risk that an action, transaction, investment or event will reduce trust in the Company's integrity or competence by our various constituents, including clients, counterparties and the broader public.

#### Risk management

The types of events that could harm the Firm's reputation are so varied across the Firm's lines of business, each line of business has a separate reputation risk governance infrastructure in place, which consists of three key elements: clear, documented escalation criteria appropriate to the business; a designated primary discussion forum - in most cases, one or more dedicated reputation risk committees; and a list of designated contacts, to whom questions relating to reputation risk should be referred. Line of business reputation risk governance is overseen by a Firmwide Reputation Risk Governance function, which provides oversight of the governance infrastructure and process to support the consistent identification, escalation, management and monitoring of reputation risk issues Firmwide.

#### 18. Managed capital

Total equity of \$533,174,000 (2016: \$530,634,000) 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.

#### 19. 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 (2016: \$nil). The Company did not employ any staff in 2017 or 2016.

The Company's parent undertaking is detailed in note 19. There were no transactions with the parent undertaking during the period.

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	JPMorgan Chase
	undertakings	undertakings
	30 June 2017	31 December 2016
	\$'000	\$'000
Financial assets held for trading	21,505,090	18,791,157
Trade and other receivables	107,851	455,196
Cash and cash equivalents	422,430	586,297
Financial liabilities designated at fair value through profit or loss	(2,316,628)	(2,511,510)
Trade and other payables	(77,569)	(21,074)
Bank borrowings	(65,304)	(421,999)

# Notes to the financial statements (continued)

19.	Related	party	transactions	(continued)
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# (ii) Income and expenses

	Unaudited JPMorgan Chase undertakings	Unaudited JPMorgan Chase undertakings	
	30 June 2017 \$'000	30 June 2016 \$'000	
Fees and commission income	6,703	1,850	
Fees and commission expense	(2,436)	(1,250)	
Interest income	305	2,032	

# 20. 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.

# Proposed appropriation of net results

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