

Pillar 3 Semi-Annual Disclosure Report as at 31st Dec 2018

J.P. Morgan Capital Holdings Limited

J.P. Morgan Securities Plc

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1. Introduction

Background

The need to assess whether an institution should disclose some information more frequently than annually, under Part Eight of the Capital Requirements Regulation ('CRR')¹, originates in Article 433 and the requirements are further articulated in the European Banking Authority ('EBA') Guidelines² ('GL1'), which were adopted by the Prudential Regulation Authority ('PRA') from 15th October 2015³.

In addition, the requirements of EBA Final Report on Guidelines for Disclosure under Part Eight of the CRR⁴ ('EBA GL2') have been incorporated into JPMC's disclosure process from 1st January 2018, and are followed for this document.

Production of all Pillar 3 disclosure for J.P. Morgan entities in the EMEA region is governed by the JPMC EMEA Pillar 3 Policy Addendum which outlines scope, review and approval governance process requirements, including annual review on frequency and omissions policies, and by the EMEA Pillar 3 Process document.

All J.P. Morgan Chase entities regulated under the Capital Requirements Directive IV ('CRD IV')⁵ have applied the Guidelines by:

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

Scope

All J.P. Morgan European regulated entities have been considered in the assessment, under the JPMC EMEA Pillar 3 Policy, for inclusion for disclosure, and then for more frequent than annual disclosure.

J.P. Morgan Capital Holdings Limited ('JPMCHL') is the highest consolidated level of J.P. Morgan entities within the UK and is defined as an Other Systemically Important Institution ('O-SII') as disclosed by the EBA on 25th April 2016, and is therefore included for disclosure under the requirements of EBA GL2.

J.P. Morgan Securities Plc ('JPMS plc') has been identified as a significant subsidiary of JPMCHL under Article 13 of the CRR, according to the aforementioned JPMC EMEA Pillar 3 Policy and is included on that basis.

The internal assessment process to determine which J.P. Morgan entities should disclose more frequently than annually concluded that both **JPMCHL** and **JPMS plc** are the UK entities meeting the qualitative and quantitative thresholds to necessitate more frequent disclosure.

The data disclosed in this document represents disclosure for the fourth quarter of 2018, and for selected areas defined by EBA GL2, for the second half of 2018.

All data is recorded as at 31st December 2018 and consistent with CoRep and produced on an unaudited basis.

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

Means of Disclosure (Article 434)

The disclosure report is made available according to Article 434 CRR on the website of JPMorgan Chase & Co. ('JPMC') at <http://investor.shareholder.com/jpmorganchase/sec.cfm>. The latest Annual disclosure is also available via this link.

Firmwide Disclosure

The ultimate parent of the entities in scope of this disclosure is JPMorgan Chase & Co., which is incorporated in the United States of America. Firmwide disclosure is made under the Basel III requirement available at the below link. In addition, the U.S. Securities and Exchange Commission filings made at the firmwide level, 10K and 10Q, provide further information at the following link: <http://investor.shareholder.com/jpmorganchase/sec.cfm>.

¹Capital Requirements Regulation (CRR) / Regulation [EU] No. 575/2013

²EBA Guidelines on materiality, proprietary and confidentiality and on disclosure frequency 23 December 2014

³PRA expectation of firms' compliance with EBA/GL/2014/14: <http://www.bankofengland.co.uk/prd/Pages/crdiv/updates.aspx>

⁴EBA Final Report on Guidelines for Disclosure under Part Eight of Regulation (EU) No 575/2013 Version 2 published 16th December 2016

⁵Capital Requirements Directive (CRD IV) / Regulation [EU] Directive 2013/36/EU

2. Own Funds (Article 437)

Own Funds Disclosures

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

The Financial Stability Board ('FSB') Total Loss Absorbing Capacity ('TLAC') standard, issued in November 2015, specified minimum TLAC requirements for G-SIBs, including at the level of their material sub-groups. Within the EU and the UK, the EU Bank Recovery and Resolution Directive ('BRRD') and the UK transposition of the Directive established a requirement for the Bank of England ('BoE') to set a target level for Minimum Requirement for own funds and Eligible Liabilities ('MREL'). Amendments to the EU MREL framework are currently being agreed through the finalisation of the CRD V/ BRRD II package. Both TLAC and MREL are intended to facilitate the resolution of a financial institution without causing financial instability and without recourse to public funds. The BoE published its updated Statement of Policy on its approach to setting MREL in June 2018. This included new requirements on the internal MREL resources to be held by UK material subsidiaries of overseas groups. In line with the FSB TLAC standard, these rules came into effect, on a transitional basis, from 1st January 2019, with full compliance required by 1st January 2022.

The information represented in the tables below constitutes the applicable data elements for Own Funds identified in Title VII of the Guidelines. The final column represents the capital position on a fully-phased in basis after all CRR transitional provisions have expired and phase-out of grandfathered capital instruments under pre-CRR national transposition measures is complete. Other capital impacts including instrument maturity or behavioural changes are not considered for the fully-phased in position.

Key Changes during the Period

- **JPMCHL**
 - On 29th November 2018, J.P. Morgan International Bank Limited ('JPMIB') parent changed from JPMCHL to J.P. Morgan International Finance Limited ('JPMIF') which is incorporated in Delaware in the USA. The change in parent was a step in the wider plan to merge JPMIB and its branches with J.P. Morgan Bank Luxembourg SA ('JPMBL') which happened on 25th January 2019 by means of a cross border merger.
 - The total capital ratio has increased by 5.59% (17.62% as at 30th September 2018). The increase in the total capital ratio is driven by \$12bn increase in T2 (\$0 as at 30th September 2018) impacting the numerator of the ratio, and by decreases in RWAs impacting the denominator of the ratio. The increase in T2 was due to \$12bn of subordinated debt issued in December 2018 to meet MREL requirements which took effect from 1st January 2019. The movement in RWAs was driven by JPMIB restructure and by decreases in Counterparty Credit Risk ('CCR') due to derivatives.
- **JPMs plc**
 - The total capital ratio has increased by 5.67% (16.83% as at 30th September 2018). The increase in the total capital ratio is driven by \$12bn increase in T2 (\$0 as at 30th September 2018) impacting the numerator of the ratio, and by decreases in RWAs impacting the denominator of the ratio. The increase in T2 was due to \$12bn of subordinated debt issued in December 2018 to meet MREL requirements which took effect from 1st January 2019. The movement in RWAs was driven by decreases in Counterparty Credit Risk ('CCR') due to derivatives.

Table 1: CRDIV Regulatory Capital for JPMCHL

Transitional Own Funds Disclosure Template (\$'mm)		Amount at Disclosure Date	Regulation (EU) No 575/2013 Article Reference	Fully-Phased in Position
Common Equity Tier 1 capital: instruments and reserves				
1	Capital instruments and the related share premium accounts	8,081	26 (1), 27, 28, 29, EBA list 26 (3)	8,081
	of which: Ordinary shares	8,081	EBA list 26 (3)	8,081
2	Retained earnings	27,606	26 (1) (c)	27,606
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	9,609	26 (1)	9,609
6	Common Equity Tier 1 (CET1) capital before regulatory adjustments	45,296		45,296
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
7	Additional value adjustments (negative amount)	(1,321)	34, 105	(1,321)
8	Intangible assets (net of related tax liability) (negative amount)	(51)	36 (1) (b), 37, 472 (4)	(51)
28	Total regulatory adjustments to Common Equity Tier 1 (CET1)	(1,372)		(1,372)
29	Common Equity Tier 1 (CET1) capital	43,924		43,924

Transitional Own Funds Disclosure Template (\$'mm)		Amount at Disclosure Date	Regulation (EU) No 575/2013 Article Reference	Fully-Phased in Position
Additional Tier 1 (AT1) capital: Instruments				
44	Additional Tier 1 (AT1) capital	—		—
45	Tier 1 capital (T1 = CET1 + AT1)	43,924		43,924
Tier 2 (T2) capital: instruments and provisions				
46	Capital instruments and the related share premium accounts	12,000	62, 63	12,000
51	Tier 2 (T2) capital before regulatory adjustments	12,000		12,000
57	Total regulatory adjustments to Tier 2 (T2) capital	—		—
58	Tier 2 (T2) capital	12,000		12,000
59	Total capital (TC = T1 + T2)	55,924		55,924
60	Total risk weighted assets	240,996		240,996
Capital ratios and buffers				
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	18.23%	92 (2) (a), 465	18.23%
62	Tier 1 (as a percentage of total risk exposure amount)	18.23%	92 (2) (b), 465	18.23%
63	Total capital (as a percentage of total risk exposure amount)	23.21%	92 (2) (c)	23.21%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer (G-SII or O-SII buffer) expressed as a percentage of risk exposure amount)	6.57%	CRD 128, 129, 130	7.19%
65	of which: capital conservation buffer requirement	1.87%		2.5%
66	of which: countercyclical buffer requirement	0.19%		0.19%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	12.23%	CRD 128	12.23%
Amounts below the thresholds for deduction (before risk weighting)				
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	3,573	36 (1) (h), 46, 45, 472 (10), 56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)	3,573
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	275	36 (1) (i), 45, 48, 470, 472 (11)	275
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	104	36 (1) (c), 38, 48, 470, 472 (5)	104

Table 2: CRDIV Regulatory Capital for JPMS plc

Transitional Own Funds Disclosure Template (\$'mm)		Amount at Disclosure Date	Regulation (EU) No 575/2013 Article Reference	Fully-Phased in Position
Common Equity Tier 1 capital: Instruments and reserves				
1	Capital instruments and the related share premium accounts	22,394	26 (1), 27, 28, 29, EBA list 26 (3)	22,394
	of which: Ordinary shares	22,394	EBA list 26 (3)	22,394
2	Retained earnings	12,402	26 (1) (c)	12,402
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	6,725	26 (1)	6,725
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	886	26 (2)	886
6	Common Equity Tier 1 (CET1) capital before regulatory adjustments	42,407		42,407
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
7	Additional value adjustments (negative amount)	(1,321)	34, 105	(1,321)
28	Total regulatory adjustments to Common Equity Tier 1 (CET1)	(1,321)		(1,321)
29	Common Equity Tier 1 (CET1) capital	41,086		41,086
Additional Tier 1 (AT1) capital: Instruments				
44	Additional Tier 1 (AT1) capital	—		—
45	Tier 1 capital (T1 = CET1 + AT1)	41,086		41,086
Tier 2 (T2) capital: instruments and provisions				
46	Capital instruments and the related share premium accounts	12,000	62, 63	12,000
51	Tier 2 (T2) capital before regulatory adjustments	12,000		12,000

Transitional Own Funds Disclosure Template (\$'mm)		Amount at Disclosure Date	Regulation (EU) No 575/2013 Article Reference	Fully-Phased in Position
57	Total regulatory adjustments to Tier 2 (T2) capital	—		—
58	Tier 2 (T2) capital	12,000		12,000
59	Total capital (TC = T1 + T2)	53,086		53,086
60	Total risk weighted assets	235,926		235,926
Capital ratios and buffers				
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	17.41%	92 (2) (a), 465	17.41%
62	Tier 1 (as a percentage of total risk exposure amount)	17.41%	92 (2) (b), 465	17.41%
63	Total capital (as a percentage of total risk exposure amount)	22.50%	92 (2) (c)	22.50%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer (G-SII or O-SII buffer) expressed as a percentage of risk exposure amount)	6.57%	CRD 128, 129, 130	7.2%
65	of which: capital conservation buffer requirement	1.87%		2.50%
66	of which: countercyclical buffer requirement	0.20%		0.20%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	11.41%	CRD 128	11.41%
Amounts below the thresholds for deduction (before risk weighting)				
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	3,236	36 (1) (h), 46, 45, 472 (10), 56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)	3,236
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	2,257	36 (1) (i), 45, 48, 470, 472 (11)	2,257
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	92	36 (1) (c), 38, 48, 470, 472 (5)	92

Own Funds Reconciliation

The tables below present a reconciliation between unaudited balance sheet own funds and regulatory own funds as at 31st Dec 2018 in accordance with the requirements set out in Commission Implementing Regulation (EU) No 1423/2013.

Table 3: Reconciliation of Regulatory Own Funds to Balance Sheet for JPMCHL

Regulatory Own Funds Reconciliation to Balance Sheet	\$'mm
CET1 Capital	
406,909,774 Ordinary Shares of \$10 each	4,069
Share Premium Account	4,012
Pension Reserve	
Other Reserves	9,609
Retained Earnings	31,739
CET1 Capital - Balance Sheet Own Funds	49,429
<i>Less Regulatory Adjustments</i>	
(-) Unaudited Profit	(4,133)
(-) Goodwill and Other Intangible Assets	(51)
(-) Additional Valuation Adjustments	(1,321)
CET1 Capital - Regulatory Own Funds After Adjustments	43,924
T2 Capital	
Subordinated Loan (maturity 17/12/2028)	12,000
T2 Capital - Balance Sheet Own Funds	12,000
T2 Capital - Regulatory Own Funds After Adjustments	12,000
Total Regulatory Own Funds	55,924

Table 4: Reconciliation of Regulatory Own Funds to Balance Sheet for JPMS plc

Regulatory Own Funds Reconciliation to Balance Sheet	\$'mm
CET1 Capital	
1,244,343 Ordinary Shares of \$10,000 each	12,443
50,000 Ordinary Shares of £1.24 each	—
Share Premium Account	9,951
Other Reserves	6,725
Retained Earnings	16,091
CET1 Capital - Balance Sheet Own Funds	45,210
<i>Less Regulatory Adjustments</i>	
(-) Unaudited Profit	(2,803)
(-) Additional Valuation Adjustments	(1,321)
CET1 Capital - Regulatory Own Funds After Adjustments	41,086
Subordinated Loan (maturity 17/12/2028)	12,000
T2 Capital - Balance Sheet Own Funds	12,000
T2 Capital - Regulatory Own Funds After Adjustments	12,000
Total Regulatory Own Funds	53,086

Main Features of Capital Instruments

The table below presents the main features of regulatory capital instruments for JPMCHL and JPMS plc as at 30th June 2018 and as required by Commission Implementing Regulation (EU) No 1423/2013. The terms and conditions for these instruments can be found on the Companies House website.

Table 5: Main Features of Regulatory Capital Instruments

Capital Instruments Main Features		JPMCHL		JPMS plc			
		CET1	T2	CET1	CET1	CET1	T2
		\$10 ordinary shares	\$12,000mm subordinated loan	\$10,000 ordinary shares	£1 ordinary shares	£1.24 ordinary shares	\$12,000mm subordinated loan
1	Issuer	JPMCHL	JPMCHL	JPMS plc	JPMS plc	JPMS plc	JPMS plc
2	Unique identifier	Private Placement	Internal issuance	Private Placement	Private Placement	Private Placement	Internal issuance
3	Governing law(s) of the instrument	The Companies Act 2006	English Law	The Companies Act 2006	The Companies Act 2006	The Companies Act 2006	English Law
Regulatory treatment							
4	Transitional CRR rules	Common Equity Tier 1	Tier 2	Common Equity Tier 1	Common Equity Tier 1	Common Equity Tier 1	Tier 2
5	Post-transitional CRR rules	Common Equity Tier 1	Tier 2	Common Equity Tier 1	Common Equity Tier 1	Common Equity Tier 1	Tier 2
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	(sub-)consolidated	(sub-)consolidated	Solo	Solo	Solo	Solo
7	Instrument type (types to be specified by each jurisdiction)	\$ Ordinary	\$ Subordinated Notes/ Loan	\$ Ordinary	£ Ordinary	£ Ordinary	\$ Subordinated Notes/ Loan
8	Amount recognised in regulatory capital (Currency in million, as of most recent reporting date).	\$8,081 includes nominal and premium	\$12,000	\$22,394 includes nominal and premium	0	0	\$12,000
9	Nominal amount of instrument	\$10	\$12,000,000,000	\$10,000	£1	£1.24	\$12,000,000,000
9a	Issue price	average issue price \$20	\$12,000,000,000	average issue price \$17,997	£1	£1.24	\$12,000,000,000
9b	Redemption price	N/A	1	N/A	N/A	N/A	1
10	Accounting classification	Shareholders' equity	Liability - amortised cost	Shareholders' equity	Shareholders' equity	Shareholders' equity	Liability - amortised cost
11	Original date of issuance (issued paid up share capital)	\$0.2m Nov 18 1999 \$2,000m Jan 25 2000 \$959m Nov 2 2000 \$1,110m Apr 9 2002 \$0.01m Dec 12 2006 \$0.01m Mar 7 2007	\$12,000m Dec 17 2018	\$647m Oct 22 1991 \$290m Mar 1 2000 \$500m Jan 2 2007 \$278m Jan 12 2007 \$270m Dec 1 2008 \$230m Dec 4 2008 \$300m Jan 30 2009 \$2,000m Dec 20 2010 \$2,274m May 27 2011 \$362m Dec 12 2011 \$1,263m Dec 16 2013 \$116m Dec 2014 \$662m Jul 27 2015 \$2,051m Sep 11 2017	£0.000002m Oct 27 1999	£0.062m May 28 2012	\$12,000m Dec 17 2018

Capital Instruments Main Features		JPMCHL		JPMS plc			
		CET1	T2	CET1	CET1	CET1	T2
		\$10 ordinary shares	\$12,000mm subordinated loan	\$10,000 ordinary shares	£1 ordinary shares	£1.24 ordinary shares	\$12,000mm subordinated loan
12	Perpetual or dated	Perpetual	Dated	Perpetual	Perpetual	Perpetual	Dated
13	Original maturity date	No maturity	December 17 2028	No maturity	No maturity	No maturity	December 17 2028
14	Issuer call subject to prior supervisory approval	No	Yes	No	No	No	Yes
15	Optional call date, contingent call dates and redemption amount	N/A	N/A	N/A	N/A	N/A	N/A
16	Subsequent call dates, if applicable	N/A	N/A	N/A	N/A	N/A	N/A
Coupons / dividends							
17	Fixed or floating dividend/coupon	N/A	Floating	N/A	N/A	N/A	Floating
18	Coupon rate and any related index	N/A	1M USD Libor +1.55%	N/A	N/A	N/A	1M USD Libor + 1.55%
19	Existence of a dividend stopper	No	No	No	No	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Full discretionary	Mandatory	Full discretionary	Full discretionary	Full discretionary	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Full discretionary	Mandatory	Full discretionary	Full discretionary	Full discretionary	Mandatory
21	Existence of step up or other incentive to redeem	No	No	No	No	No	No
22	Noncumulative or cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A	N/A	N/A	N/A	N/A	N/A
25	If convertible, fully or partially	N/A	N/A	N/A	N/A	N/A	N/A
26	If convertible, conversion rate	N/A	N/A	N/A	N/A	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A	N/A	N/A	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A	N/A	N/A	N/A
30	Write-down features	N/A	N/A	N/A	N/A	N/A	No
31	If write-down, write-down trigger(s)	N/A	N/A	N/A	N/A	N/A	N/A
32	If write-down, full or partial	N/A	N/A	N/A	N/A	N/A	N/A
33	If write-down, permanent or temporary	N/A	N/A	N/A	N/A	N/A	N/A
34	If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A	N/A	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	One class of share & same rights attached to all shares	Unsecured and Unsubordinated Creditors	Ranks pari passu	Ranks pari passu	Ranks pari passu	Unsecured and Unsubordinated Creditors
36	Non-compliant transitioned features	No	No	No	No	No	No
37	If yes, specify non-compliant features	N/A	N/A	N/A	N/A	N/A	N/A

3. Capital Requirements (Article 438)

Minimum Capital Requirements

The tables below show a breakdown of the risk weighted assets and associated minimum capital requirements for JPMCHL and JPMS plc. The minimum capital requirement is the amount of Pillar 1 capital that the CRR requires JPMCHL and JPMS plc to hold at all times. Both JPMCHL and JPMS plc's total capital resources must be greater than its minimum capital requirement, allowing for a capital excess to cover any additional obligations, for example, Pillar 2.

The standardised approach has been used for the calculation of credit risk. The Mark-to-Market Method ('MtM') and Internal Model Method ('IMM') have been employed to calculate OTC derivative exposure in CCR.

Market risk capital requirements have been measured by using a combination of the standardised approach and internal models including Value-at-Risk ('VaR') approved by the PRA. The basic indicator approach has been used for the calculation of operational risk capital requirements.

Key Changes during the Period

- JPMCHL and JPMS plc RWAs decreased due to decreases in CCR driven by derivative exposures under both MtM method and IMM.
- JPMCHL credit risk (excluding CCR) decreased primarily due to the change in JPMIB's parent from JPMCHL to JPMIF.

Table 6: EU OV1 - Overview of RWAs for JPMCHL⁶

\$'mm			RWA		Minimum capital requirements
			Q4 2018	Q3 2018	Q4 2018
	1	Credit risk (excluding CCR)	20,734	27,950	1,659
Article 438(c)(d)	2	Of which the standardised approach	20,734	27,950	1,659
Article 107 and Article 438(c)(d)	6	CCR	111,156	119,121	8,892
Article 438(c)(d)	7	Of which mark to market	26,063	31,876	2,085
	10	Of which internal model method (IMM)	19,731	24,584	1,578
Article 438(c)(d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	86	92	7
Article 438(c)(d)	12	Of which CVA	8,771	9,211	702
Article 438(e)	13	Settlement risk	357	773	29
Article 438 (e)	19	Market risk	92,500	93,068	7,400
	20	Of which the standardised approach	79,256	80,482	6,340
	21	Of which IMA	13,244	12,586	1,060
Article 438(f)	23	Operational risk	15,959	15,959	1,277
	24	Of which basic indicator approach	15,959	15,959	1,277
Article 437(2), Article 48 and Article 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)	290	389	23
	29	Total	240,996	257,260	19,280

Table 7: EU OV1 - Overview of RWAs for JPMS plc⁷

\$'mm			RWA		Minimum capital requirements
			Q4 2018	Q3 2018	Q4 2018
	1	Credit risk (excluding CCR)	18,651	20,807	1,492
Article 438(c)(d)	2	Of which the standardised approach	18,651	20,807	1,492
Article 107 and Article 438(c)(d)	6	CCR	111,164	118,401	8,893
Article 438(c)(d)	7	Of which mark to market	26,018	31,245	2,081
	10	Of which internal model method (IMM)	19,732	24,586	1,579
Article 438(c)(d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	86	92	7
Article 438(c)(d)	12	Of which CVA	8,771	8,968	702
Article 438(e)	13	Settlement risk	262	683	21

⁶The exposure value to SFTs is included under CCR, it is not shown in the CCR breakdown, as in line with the EBA prescribed template.

⁷As per footnote 6.

\$'mm			RWA		Minimum capital requirements
			Q4 2018	Q3 2018	Q4 2018
Article 438 (e)	19	Market risk	88,390	87,983	7,071
	20	Of which the standardised approach	75,146	75,397	6,012
	21	Of which IMA	13,244	12,586	1,059
Article 438(f)	23	Operational risk	12,258	12,258	981
	24	Of which basic indicator approach	12,258	12,258	981
Article 437(2), Article 48 and Article 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)	5,201	5,202	416
	29	Total	235,926	245,334	18,874

Total Capital Requirements

In accordance with PRA Supervisory Statement SS31/15 the firm is now required to disclose the Total Capital Requirements ('TCR'). TCR is the sum of Pillar 1 and Pillar 2A capital requirements. The requirement is only applicable for firms at the highest level of consolidation in the UK.

Table 8: Total Capital Requirements for JPMCHL

\$'mm	JPMCHL	
	Q4 2018	Q3 2018
Total Capital Requirements	26,598	28,332

4. Exposure to Counterparty Credit Risk (Article 439)

Counterparty Credit Risk Analysis

The table below shows counterparty credit risk exposures (excluding trades cleared through a CCP) by methods used to calculate CRR regulatory requirements for JPMCHL. Counterparty credit risk exposures are calculated under the standardised approaches set out in the CRR. Derivative exposures are calculated using the MtM method (CRR Article 274) and the IMM (CRR Article 283). SFTs use the Financial Collateral Comprehensive Method ('FCCM') (CRR Article 223). Long settlement transactions are treated under the FCCM method.

Table 9: EU CCR1 – Analysis of CRR exposure by approach for JPMCHL

	\$'mm	Replacement cost/current market value	Potential future credit exposures	EEPE	Multiplier	EAD post CRM	RWAs
1	Mark to market	4,098	44,875			48,864	24,812
4	IMM (for derivatives and SFTs)			18,737	1.4	26,232	19,731
6	Of which derivatives and long settlement transactions			18,737	1.4	26,232	19,731
9	Financial collateral comprehensive method (for SFTs)					86,927	56,363
11	Total						100,906

The flow statements explaining changes in the CCR RWAs determined under the IMM are depicted in the table below.

Table 10: EU CCR7 – RWA flow statements of CCR exposures under the IMM for JPMCHL

	\$'mm	RWA amounts	Capital requirements
1	RWA as at end of previous reporting period (30th September 2018)	24,584	1,967
2	Asset size	(4,885)	(391)
3	Credit quality of counterparties	4	—
4	Model updates (IMM only)	—	—
5	Methodology and policy (IMM only)	—	—
8	Other ⁸	28	2
9	RWAs as at the end of the current reporting period (31st December 2018)	19,731	1,578

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

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

\$'mm	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held ⁹	Net credit exposure
Derivatives ¹⁰	241,615	(171,109)	70,506	(31,588)	38,918
SFTs subject to a netting agreement	525,274	(363,856)	161,418	(70,119)	91,299
SFTs not subject to a netting agreement	6,078	—	6,078	(3,440)	2,638
Non-eligible collateral under the CRR ¹¹				(12,189)	
Total	772,967	(534,965)	238,002	(105,147)	132,855

⁸ Includes changes in Specific Wrong Way Risk ('SWWR').

⁹ Includes supervisory volatility adjustments and excludes collateral for OTC derivative exposures under IMM.

¹⁰ The prudent valuation adjustments are deducted from the regulatory capital but they are not used to calculate the derivative credit exposure, therefore the balances represent values before the application of the prudent valuation adjustments.

¹¹ Non-eligible collateral does not include supervisory volatility adjustments.

Collateral Used in Counterparty Credit Risk

The breakdown of all types of collateral posted or received by JPMCHL to mitigate CCR exposure to derivatives and SFTs is shown in the table below. As at 31st December 2018, the majority of collateral used which JPMCHL held was in cash.

Table 12: EU CCR5-B – Composition of collateral for exposures to CCR for JPMCHL¹²

\$'mm	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
Cash	—	55,265	—	74,970	43,414	15,570
Debt securities (Central Governments)	—	1,017	—	969	—	6,102
Debt securities (Corporates)	—	19,690	—	1,706	2,909	13,795
Debt securities (Institutions)	—	5,429	—	11,905	5,801	2,176
Equities	—	445	—	1	24,924	39,516
Convertible securities	—	—	—	—	970	1,357
CIUs	—	—	—	—	1,799	1,058
Other	—	1	—	—	41	38
Total	—	81,847	—	89,551	79,858	79,612

CVA Capital Charge

The exposure value and associated RWAs subject to CVA capital charges are calculated according to both the Advanced method as set in CRR Article 383 and the Standardised method as prescribed in CRR Article 384.

Table 13: EU CCR2 – CVA capital charge for JPMCHL

		JPMCHL (\$'mm)	
		Exposure value	RWAs
1	Total portfolios subject to the advanced method	11,279	6,088
2	(i) VaR component (including the 3× multiplier)		1,510
3	(ii) SVaR component (including the 3× multiplier)		4,578
4	All portfolios subject to the standardised method	5,691	2,683
5	Total subject to the CVA capital charge	16,970	8,771

Exposure to CCPs

The following table shows a comprehensive picture of JPMCHL's exposures to CCPs. JPMCHL does not have any exposure to non-QCCPs¹³. The exposure amount for default funds contributions is calculated as per CRR Article 308.

Table 14: EU CCR8 – Exposures to CCPs for JPMCHL

		JPMCHL (\$'mm)	
		EAD post CRM	RWAs
1	Exposures to QCCPs (total)		1,477
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	68,273	1,377
3	(i) OTC derivatives	37,683	754
4	(ii) Exchange-traded derivatives	23,580	483
5	(iii) SFTs	7,010	140
7	Segregated initial margin ¹⁴		
8	Non-segregated initial margin	685	14
9	Prefunded default fund contributions	838	86
11	Exposures to non-QCCPs (total)		—

¹² The table includes both eligible and non-eligible collateral before application of supervisory volatility adjustments.

¹³ QCCP (qualifying central counterparty) means a central counterparty that has been either authorised in accordance with Article 14 of Regulation (EU) No 648/ 2012 or recognised in accordance with Article 25 of that Regulation.

¹⁴ For regulatory purposes all segregated margin is treated as non-segregated.

Credit Derivatives Breakdown

The table below presents a breakdown of credit derivatives notionals for JPMCHL by product type and whether they are held for client intermediation (other credit derivatives) or for the firm's own portfolio (credit derivative hedges). The firm makes limited use of credit derivatives hedges for the purpose of credit risk mitigation as disclosed in Section 9. Credit derivatives trading activity is only carried out within the JPMS plc which consolidates to JPMCHL.

Table 15: EU CCR6 – Credit derivatives exposures for JPMCHL

\$'mm	Credit derivative hedges		Other credit derivatives
	Protection bought	Protection sold	
Notionals			
Credit default swaps	—	—	1,204,198
Total return swaps	22,818	—	5,939
Total notionals	22,818	—	1,210,137
Fair values			
Positive fair value (asset)	—	—	15,415
Negative fair value (liability)	(6,887)	—	(13,892)

5. Credit Risk Adjustments (Article 442)

Definitions

The following definitions are used for accounting purposes:

- **Impairment of financial assets:** Impairment losses on loans and receivables are measured as the difference between the financial assets carrying amount and the present value of the estimated future cash flows discounted at the financial asset's effective interest rate.
- **Impairment of non-financial assets:** An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are largely independent cash inflows (cash-generating units).
- **Past due:** A financial asset is past due when a counterparty has failed to make a payment when contractually due.

The following analysis for credit exposures is only provided for material exposure classes or industries exceeding 5% of the total net value. All other exposure classes or industries are included under 'Other residual exposure'. Exposure class 'Exposure in default' is only shown as its original exposure class. All tables in this section do not include counterparty credit risk.

Analysis of Credit Exposures

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

Table 16: EU CR1-A – Credit quality of exposures by exposure class and instrument for JPMCHL

\$'mm		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net Values (a+b-c-d)
		Defaulted exposures	Non-defaulted exposures					
1	Central governments or central banks	—	30,382	—	—	—	—	30,382
2	Institutions	—	7,634	—	—	—	—	7,634
3	Corporates	161	26,833	1	—	—	1	26,993
4	Other Residual Exposure	—	2,034	—	—	—	—	2,034
5	Total standardised approach	161	66,883	1	—	—	1	67,043
6	Total	161	66,883	1	—	—	1	67,043
7	Of which: Loans	161	6,589	1	—	—	1	6,749
8	Of which: Debt securities	—	22	—	—	—	—	22
9	Of which: Off-balance-sheet exposures	—	23,075	—	—	—	—	23,075

Table 17: EU CR1-A – Credit quality of exposures by exposure class and instrument for JPMS plc

\$'mm		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net Values (a+b-c-d)
		Defaulted exposures	Non-defaulted exposures					
1	Central governments or central banks	—	30,351	—	—	—	—	30,351
2	Institutions	—	9,167	—	—	—	—	9,167
3	Corporates	161	23,907	1	—	—	1	24,067
4	Other Residual Exposure	—	3,976	—	—	—	—	3,976
5	Total standardised approach	161	67,401	1	—	—	1	67,561
6	Total	161	67,401	1	—	—	1	67,561
7	Of which: Loans	161	8,232	1	—	—	1	8,392
8	Of which: Debt securities	—	22	—	—	—	—	22
9	Of which: Off-balance-sheet exposures	—	20,814	—	—	—	—	20,814

Industry Analysis of Credit Exposures

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

Table 18: EU CR1-B – Credit quality of exposures by industry or counterparty types for JPMCHL

\$'mm		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Finance Industry	161	46,452	1	—	—	1	46,612
2	Manufacturing	—	7,481	—	—	—	—	7,481
3	Other Residual Exposure	—	12,950	—	—	—	—	12,950
4	Total	161	66,883	1	—	—	1	67,043

Table 19: EU CR1-B – Credit quality of exposures by industry or counterparty types for JPMS plc

\$'mm		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	Finance Industry	161	47,518	1	—	—	1	47,678
2	Manufacturing	—	6,715	—	—	—	—	6,715
3	Other Residual Exposure	—	13,168	—	—	—	—	13,168
4	Total	161	67,401	1	—	—	1	67,561

Geographical Location of Exposures

The tables below show credit exposures before credit risk mitigation broken down by geographic location. Other geographical areas includes multilateral development banks and international organisations which operate across multiple regions.

Table 20: EU CR1-C – Credit quality of exposures by geography for JPMCHL

	\$'mm	a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	EMEA	—	48,807	—	—	—	—	48,807
2	Federal Republic of Germany	—	30,235	—	—	—	—	30,235
3	Luxembourg	—	4,020	—	—	—	—	4,020
4	France	—	1,983	—	—	—	—	1,983
5	Spain	—	1,738	—	—	—	—	1,738
6	Other Countries in EMEA (Residual Exposure)	—	10,831	—	—	—	—	10,831
7	AMERICA	161	16,911	1	—	—	1	17,071
8	United States of America	—	15,825	—	—	—	—	15,825
9	Other Countries in AMERICA (Residual Exposure)	161	1,086	1	—	—	1	1,246
10	APAC	—	1,131	—	—	—	—	1,131
11	Other Geographical Areas	—	34	—	—	—	—	34
12	Total	161	66,883	1	—	—	1	67,043

Table 21: EU CR1-C – Credit quality of exposures by geography for JPMS plc

	\$'mm	a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges	Net Values
		Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
1	EMEA	—	50,937	—	—	—	—	50,937
2	Federal Republic of Germany	—	30,201	—	—	—	—	30,201
3	Luxembourg	—	3,949	—	—	—	—	3,949
4	United Kingdom	—	3,375	—	—	—	—	3,375
5	Republic of South Africa	—	2,198	—	—	—	—	2,198
6	Other Countries in EMEA (Residual Exposure)	—	11,214	—	—	—	—	11,214
7	AMERICA	161	15,300	1	—	—	1	15,460
8	United States of America	—	14,252	—	—	—	—	14,252
9	Other Countries in AMERICA (Residual Exposure)	161	1,048	1	—	—	1	1,208
10	APAC	—	1,130	—	—	—	—	1,130
11	Other Geographical Areas	—	34	—	—	—	—	34
13	Total	161	67,401	1	—	—	1	67,561

As at 31st December 2018 There were no material past due exposures reported in JPMS plc and JPMCHL.

The following tables provide an overview of non-performing and forborne exposures as per the Commission Implementing regulation (EU) No 680/2017.

[illegible][illegible]

Credit Risk Adjustments

No general credit risk adjustment was made in the reporting period. The specific credit risk adjustments relate to loans to corporate customers.

Table 24: EU CR2-A – Changes in the stock of general and specific credit risk adjustments

\$'mm		JPMCHL	JPMS plc
		Accumulated specific credit risk adjustment	Accumulated specific credit risk adjustment
1	Opening balance (1 st July 2018)	18	18
2	Increases due to amounts set aside for estimated loan losses during the period	1	1
8	Other adjustments	(18)	(18)
9	Closing balance (31 st December 2018)	1	1
11	Specific credit risk adjustments directly recorded to the statement of profit or loss	1	1

Defaulted and Impaired Exposures

The table below presents changes in defaulted or impaired loans and debt securities between 1st July 2018 and 31st December 2018. The defaulted exposure of \$161m represents loans made to corporate customers.

Table 25: EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities

\$'mm		JPMCHL	JPMS plc
		Gross carrying value defaulted exposures	Gross carrying value defaulted exposures
1	Opening balance (1 st July 2018)	153	153
2	Loans and debt securities that have defaulted or impaired since the last reporting period	7	7
6	Closing balance (31 st December 2018)	161	161

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

ECAIs and Exposure Classes

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

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

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

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

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

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

Exposures at Default by Risk Weights

Credit Risk Exposures at Default Post-Credit Risk Mitigation

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

Table 26: EU CR5 – Standardised approach (post-CRM) for JPMCHL

Exposure classes (\$'mm)		Risk weight								Total	Of which unrated
		0%	20%	50%	100%	150%	250%	1250%	Deducted		
1	Central governments or central banks	30,037	91	37	103	2	112	—	—	30,382	135
3	Public sector entities	—	1	—	1	—	—	—	—	2	1
4	Multilateral development banks	34	—	—	—	—	—	—	—	34	4
6	Institutions	—	6,469	425	410	—	—	51	—	7,355	518
7	Corporates	—	1,209	1,985	12,871	1,005	—	—	—	17,070	7,609
10	Exposures in default	—	—	—	160	—	—	—	—	160	160
11	Higher-risk categories	—	—	—	—	740	—	—	—	740	740
15	Equity	—	—	—	—	131	4	—	—	135	132
16	Other items	—	—	—	954	—	—	—	51	1,005	922
17	Total	30,071	7,770	2,447	14,499	1,878	116	51	51	56,883	10,221

Counterparty Credit Risk Exposures at Default Post-Credit Risk Mitigation

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

Table 27: EU CCR3 – Standardised approach – CCR exposures by regulatory portfolio and risk (post CRM) for JPMCHL

Exposure Classes (\$'mm)		Risk Weight						Total	Of which unrated
		0%	2%	20%	50%	100%	150%		
1	Central government or central banks	12,919	—	1,290	1	5,115	—	19,325	5,082
2	Regional government or local authorities	168	—	177	—	—	—	345	—
3	Public sector entities	—	—	1,738	1	7	—	1,746	1,361
4	Multilateral development banks	840	—	—	155	—	—	995	179
5	International organisations	77	—	—	—	—	—	77	6
6	Institutions	41	68,946	54,170	17,142	1,049	14	141,362	76,786
7	Corporates	—	—	1,418	2,057	44,098	655	48,228	42,394
9	Higher-risk categories	—	—	112	—	—	18,791	18,903	18,903
12	Total	14,045	68,946	58,905	19,356	50,269	19,460	230,981	144,711

7. Exposure to Market Risk (Article 445)

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

Table 28: EU MR1 – Market risk under the standardised approach for JPMCHL

		JPMCHL (\$'mm)	
		RWAs	Capital requirements
	Outright products		
1	Interest rate risk (general and specific)	33,224	2,658
2	Equity risk (general and specific)	24,931	1,994
3	Foreign exchange risk	8,441	675
4	Commodity risk	821	66
	Options		
6	Delta-plus method	2,322	186
7	Scenario approach	5,390	431
8	Securitisation (specific risk)	4,127	330
9	Total	79,256	6,340

8. Leverage (Article 451)

The leverage ratio is a measure of Tier 1 capital as a percentage of exposure as defined under the CRR rules.

The requirement for the calculation and reporting of leverage ratios was introduced as part of CRD IV in 2014, and amended by the European Commission Delegated Act (EU) 2015/62 in 2015.

CRD IV does not currently include a minimum Leverage Ratio requirement; however, the Basel Committee on Banking Supervision (the 'Basel Committee') has indicatively proposed a minimum requirement of 3%.

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

The Firm has adopted a point-in-time calculation of the leverage ratio, as per Commission Delegated Regulation 2015/62.

Leverage Ratio Commentary

- **JPMCHL:** The leverage ratio has increased by 0.49% (6.08% as at 30th September 2018). The increase in the leverage ratio is mainly driven by a decrease in the leverage exposure value impacting the denominator of the ratio. This movement is primarily due to seasonal decreases in on-balance sheet exposures and derivative exposures.
- **JPMS plc:** The leverage ratio has increased by 0.58% (5.59% as at 30th September 2018). The increase in the leverage ratio is driven by a decrease in the leverage exposure value impacting the denominator of the ratio. This movement is primarily due to seasonal decreases in on-balance sheet exposures and derivative exposures.

The information represented in the tables below constitutes the key applicable data elements for leverage identified in Title VII of the EBA Guidelines.

Table 29: Leverage Ratio Common Disclosure

LR Com: Leverage Ratio Common Disclosure (\$'mm)		JPMCHL	JPMS plc
On-balance sheet exposures (excluding derivatives and SFTs)			
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	220,180	220,749
2	(Asset amounts deducted in determining Tier 1 capital)	(1,321)	(1,321)
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)	218,859	219,428
Derivative exposures			
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	42,849	42,785
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to- market method)	193,586	193,487
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(43,233)	(43,223)
8	(Exempted CCP leg of client-cleared trade exposures)	(13,314)	(13,314)
9	Adjusted effective notional amount of written credit derivatives	605,068	605,068
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(605,068)	(605,068)
11	Total derivative exposures (sum of lines 4 to 10)	179,888	179,735
SFT exposures			
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	479,326	477,900
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(274,755)	(274,755)
14	Counterparty credit risk exposure for SFT assets	52,317	52,317
16	Total securities financing transaction exposures (sum of lines 12 to 15a)	256,888	255,462
Other off-balance sheet exposures			
17	Off-balance sheet exposures at gross notional amount	22,605	20,310
18	(Adjustments for conversion to credit equivalent amounts)	(9,712)	(8,972)
19	Other off-balance sheet exposures (sum of lines 17 and 18)	12,893	11,338
Capital and total exposure measure			
20	Tier 1 capital	43,924	41,086
21	Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	668,528	665,963
Leverage ratio			
22	Leverage ratio	6.57%	6.17%

Table 30: Summary Reconciliation of Accounting Assets and Leverage Ratio Exposures

LR Sum: Leverage Ratio Summary Reconciliation (\$'mm)		JPMCHL	JPMS plc
1	Total assets as per published financial statements	666,107	665,179
4	Adjustments for derivative financial instruments	(61,468)	(61,550)
5	Adjustment for securities financing transactions (SFTs)	52,317	52,317
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	12,893	11,338
7	Other adjustments	(1,321)	(1,321)
8	Leverage ratio total exposure measure	668,528	665,963

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

Credit Risk Mitigation Effect for Credit Risk Exposures

The following tables illustrate the effect of credit risk mitigation techniques applied for credit risk exposures (i.e. on-balance sheet and off-balance sheet exposures) including RWA density as a synthetic metric on the riskiness of each exposure class portfolio.

Table 31: EU CR4 – Standardised approach – Credit risk exposure and CRM effects for JPMCHL

Exposure class (\$'mm)		Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
		On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
1	Central governments or central banks	30,382	—	30,382	—	423	1.39%
3	Public sector entities	2	—	2	—	1	61.07%
4	Multilateral development banks	34	—	34	—	—	0.31%
6	Institutions	6,848	785	6,848	507	2,556	34.76%
7	Corporates	5,560	21,274	5,332	11,738	15,614	91.47%
10	Exposures in default	160	—	160	—	160	100.00%
11	Higher-risk categories	690	220	690	50	1,111	150.00%
15	Equity	135	—	135	—	205	152.61%
16	Other items	954	—	954	—	954	99.96%
17	Total	44,765	22,279	44,537	12,295	21,024	36.99%

Table 32: EU CR4 – Standardised approach – Credit risk exposure and CRM effects for JPMS plc

Exposure class (\$'mm)		Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
		On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
1	Central governments or central banks	30,351	—	30,351	—	359	1.18%
3	Public sector entities	2	—	2	—	1	61.07%
4	Multilateral development banks	34	—	34	—	—	0.31%
6	Institutions	8,566	601	8,566	328	2,720	30.58%
7	Corporates	4,710	19,197	4,482	10,362	13,415	90.37%
10	Exposures in default	160	—	160	—	160	100.00%
11	Higher-risk categories	690	220	690	50	1,110	150.00%
15	Equity	2,125	—	2,125	—	5,181	243.83%
16	Other items	905	—	906	—	906	100.00%
17	Total	47,543	20,018	47,316	10,740	23,852	41.08%

Credit Risk Mitigation Techniques

To reduce capital requirements exposures can be secured by collateral, financial guarantees or credit derivatives. JPMCHL and JPMS plc secure their exposure by collateral and financial guarantees. JPMS plc has a significant volume of credit derivatives in its trading portfolio. These are held for trading intent and are treated under the market risk framework rather than as credit risk mitigation.

The following tables show CRM for loans and debt securities.

Table 33: EU CR3 – CRM techniques – Overview for JPMCHL

(\$'mm)		Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total loans	6,637	112	112	—	—
2	Total debt securities	22	—	—	—	—
3	Total exposures	6,659	112	112	—	—
4	Of which defaulted	160	—	—	—	—

Table 34: EU CR3 – CRM techniques – Overview for JPMS plc

	(\$'mm)	Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Total loans	8,280	112	112	—	—
2	Total debt securities	22	—	—	—	—
3	Total exposures	8,302	112	112	—	—
4	Of which defaulted	160	—	—	—	—

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

Own Funds Requirements for Market Risk under the IMA

The standardised approach (see Section 7) and Internal market risk models are employed to compute own funds requirements for market risk. The capital charge under the IMA represents approximately 14.3% of total market risk capital charge. The table below summarises the components of the own funds requirements under the IMA for market risk.

Table 35: EU MR2-A – Market risk under the IMA for JPMCHL

		JPMCHL (\$'mm)	
		RWAs	Capital requirements
1	VaR (higher of values a and b)	2,463	197
(a)	Previous day's VaR (Article 365(1) of the CRR (VaRt-1))		118
(b)	Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days (VaRavg) x multiplication factor(mc) in accordance with Article 366 of the CRR		197
2	SVaR (higher of values a and b)	8,078	646
(a)	Latest SVaR (Article 365(2) of the CRR (SVaRt-1))		399
(b)	Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x multiplication factor (ms) (Article 366 of the CRR)		646
3	IRC (higher of values a and b)	2,703	217
(a)	Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR)		179
(b)	Average of the IRC number over the preceding 12 weeks		216
6	Total	13,244	1,060

As it is displayed in the table below, own funds requirements decreased by \$53m to \$1,060m mainly driven by increases in SVaR.

Table 36: EU MR2-B – RWA flow statements of market risk exposures under the IMA for JPMCHL

	(\$'mm)	VaR	SVaR	IRC	Total RWAs	Total capital requirements
1	RWAs at previous quarter end	2,401	7,622	2,563	12,586	1,007
2	Movement in risk levels	62	456	140	658	53
3	Model updates/changes	—	—	—	—	—
4	Methodology and policy	—	—	—	—	—
8	RWAs at the end of reporting period	2,463	8,078	2,703	13,244	1,060

Other Quantitative Information for Market Risk under the IMA

The following table displays the capital requirement values (maximum, minimum, average and the ending for the reporting period) resulting from different types of models approved by the PRA to be used for computing the regulatory capital charge at group level. The table captures data for last two consecutive quarters ending 31st December 2018.

Table 37: EU MR3 – IMA values for trading portfolios for JPMCHL

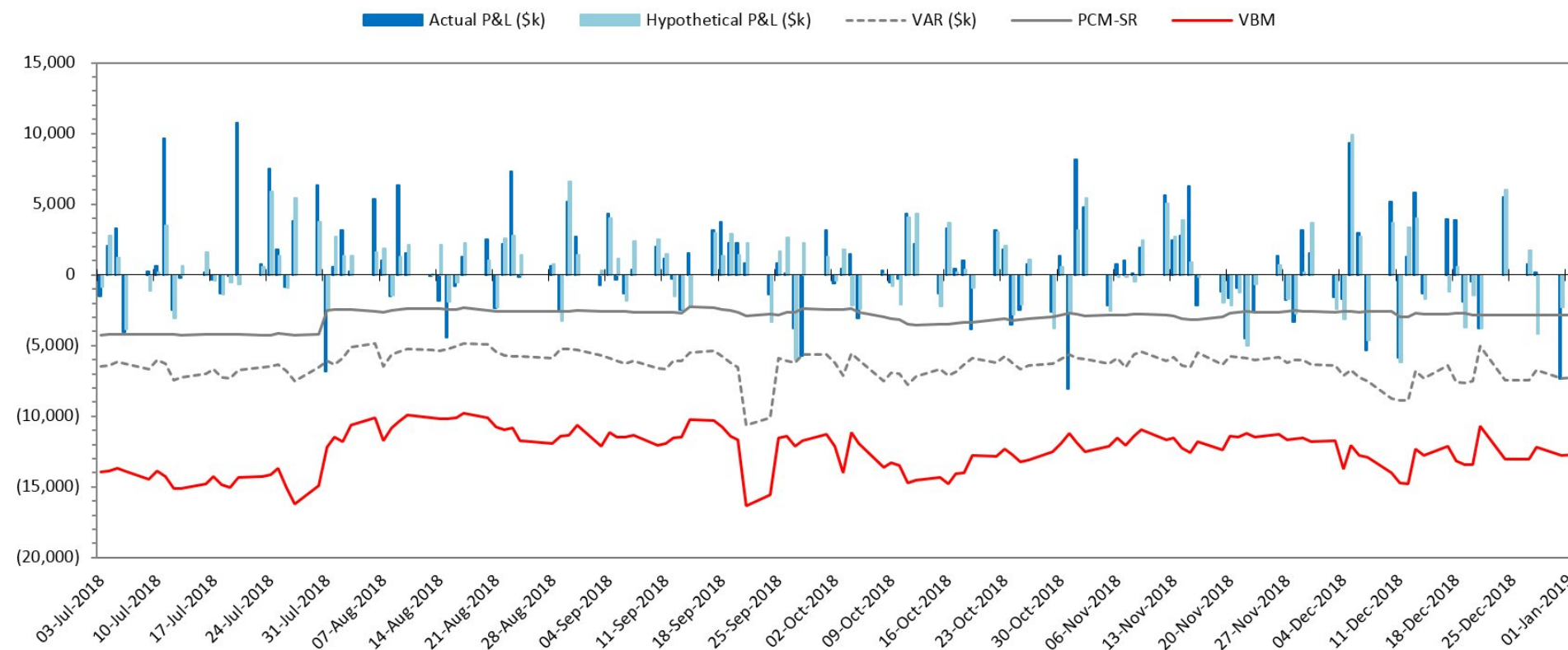
		JPMCHL (\$'mm)
VaR (10 day 99%)		
1	Maximum value	128
2	Average value	116
3	Minimum value	107
4	Period end	118
SVaR (10 day 99%)		
5	Maximum value	441
6	Average value	405
7	Minimum value	377
8	Period end	399
IRC (99.9%)		
9	Maximum value	332
10	Average value	186
11	Minimum value	121
12	Period end	179

VBM Back-Testing

The Firm evaluates the effectiveness of its VBM¹⁵ methodology by back-testing, which compares daily market risk-related gains and losses with daily VBM results for a one-day holding period and a 99% confidence level as prescribed by capital rules. Market risk related gains and losses are defined as profits and losses on trading book positions, captured through Hypothetical P&L and Actual P&L¹⁶.

VBM 'back-testing exceptions' occur when market risk related losses are greater than the estimate predicted by the VBM for the corresponding day. The following chart presents the VBM back-testing results for JPMS plc trading book positions covered by current IMA permission. The chart shows that for the half year 1st July till 31st December 2018, the concerned trading book positions observed no top level back-testing exceptions.

Table 38: EU MR4 – Comparison of VaR estimates with gains/losses for JPMCHL



¹⁵J.P. Morgan uses 'VaR- based measure' ('VBM'), which should be treated as VaR for IMA regulatory capital purposes (as defined in the CRR).

¹⁶**Hypothetical P&L** (which is defined in JPM internal terminology as 'Clean P&L') is defined as market risk-related gains and losses on in-scope products and legal entities, excluding fees, brokerage commissions, fair value adjustments, net interest income, carry and gains and loss arising from day one positions.

Actual P&L consists of 'Hypothetical P&L,' as defined above, plus carry, gains and losses from day one positions and certain reserves. P&L is updated with reserves including but not limited to fair value adjustments, model limitation and price testing at month-end.

11. Liquidity (Article 435 (1))

The Liquidity Coverage Ratio ('LCR')¹⁷, as per the Commission Delegated Regulation (EU) 2015/61, requires credit institutions to maintain an amount of unencumbered high quality liquid assets that is sufficient to meet their estimated total net cash outflows over a prospective 30 calendar-day period of significant stress. From 1st January 2018 the LCR is required to be a minimum of 100%.

Key Ratios and Figures

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

Table 39: Items prone to rapid change as defined in EBA GL/2017/01 for JPMCHL and JPMS plc

	JPMCHL				JPMS plc			
Currency and units:	(\$'mm)	(\$'mm)	(\$'mm)	(\$'mm)	(\$'mm)	(\$'mm)	(\$'mm)	(\$'mm)
Quarter ending on:	31-Mar-18	30-Jun-18	30-Sep-18	31-Dec-18	31-Mar-18	30-Jun-18	30-Sep-18	31-Dec-18
Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
	Total weighted adjusted value (average)				Total weighted adjusted value (average)			
LIQUIDITY BUFFER	72,401	67,367	63,315	61,352	66,738	62,539	59,331	57,880
TOTAL NET CASH OUTFLOWS	29,608	27,172	24,244	22,731	31,849	28,716	25,046	22,847
LIQUIDITY COVERAGE RATIO (%)	250%	255%	266%	275%	216%	227%	244%	259%

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

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

¹⁷ In line with the EBA guidelines the average ratio disclosed in Table 39 is calculated as an average over the 12 data points used for each item, and therefore the quoted ratio is not equal to the average 'Liquidity buffer' divided by average 'Total net cash outflows'.

12. Glossary of Acronyms

APAC	Asia Pacific
AT	Additional Tier
BBRD	Bank Recovery and Resolution Directive
BoE	Bank of England
BIA	Basic Indicator Approach
CCP	Central Counterparty Clearing House
CCR	Credit Counterparty Risk
CET	Common Equity Tier
CIB	Corporate and Investment Bank
CQS	Credit Quality Step
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CVA	Credit Valuation Adjustment
EBA	European Banking Authority
ECAI	External Credit Assessment Institutions
EMEA	Europe, Middle East and Africa
FCCM	Financial Collateral Comprehensive Method
FRS	Financial Reporting Standard
FSB	Financial Stability Board
IAS	International Accounting Standards
ICAAP	Internal Capital Adequacy Assessment Process
IFRS	International Financial Reporting Standards
IRR	Interest Rate Risk
ITS	Implementing Technical Standards
JPMBL	J.P. Morgan Bank Luxembourg SA
JPMC	J.P. Morgan Chase and Company
JPMCHL	J.P. Morgan Capital Holdings Limited
JPMEL	J.P. Morgan Europe Limited
JPMIFL	J.P. Morgan International Finance Limited
JPMIB	J.P. Morgan International Bank Limited
JPML	J.P. Morgan Limited
JPMS plc	J.P. Morgan Securities plc
LCR	Liquidity Coverage Ratio
LOB	Line of Business
MREL	Minimum Requirement for own funds and Eligible Liabilities
OTC	Over the Counter
PRA	Prudential Regulation Authority
RWA	Risk Weighted Assets
S&P	Standard & Poor's
SFT	Securities Financing Transactions
TLAC	Total Loss Absorbing Capacity
VaR	Value-at-Risk