Public Quantitative Disclosure Standards for Central Counterparties

ASX Clear Pty Limited

March 2016



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Introduction

Overview

ASX Clear Pty Limited (ASX Clear) is the central counterparty (CCP) for the clearing of shares, warrants and exchange-traded funds traded on ASX Trade or via an Approved Market Operator (AMO).

As the central counterparty, the Clearing House becomes the seller to every buyer and the buyer to every seller, making it liable for completing all cleared transactions on the relevant market. This occurs through a contractual process known as novation, in accordance with the operating rules of the Clearing House.

Standard and Poor's (S&P)

ASX has obtained an S&P issuer credit rating for ASX Clear. S&P has assigned an AA- long-term and A1+ short-term credit rating to ASX Clear. The rating outlook on the long-term issuer credit rating is stable.

European Securities and Markets Authority (ESMA) recognition

The European Market Infrastructure Regulation ("EMIR") was adopted by the European Parliament on 4 July 2012. Under EMIR, a CCP established outside of the European Union may continue to provide clearing services to clearing members established in the European Union only if ESMA recognises the CCP as a 'third-country CCP'. In addition, under the European Capital Requirements Directive IV ("CRD IV"), European banks are permitted to apply concessional risk weightings to their group's novated exposures to CCPs if they are "Qualifying CCPs". To become a Qualifying CPP, a CCP established outside the European Union must obtain recognition as a 'third country CCP' under EMIR.

ASX Clear obtained recognition as a "third-country CCP" from ESMA with effect from 27 April 2015. Two important steps to obtaining such recognition were:

- (i) the adoption by the European Commission of its equivalence decision for Australia's regulatory regime on 30 October 2014; and
- (ii) the signing of a Memorandum of Understanding relating to cooperation between ASIC, RBA and ESMA on 27 November 2014.

Background

The CPSS-IOSCO *Principles for financial market infrastructures* (PFMI) states that financial market infrastructures (FMIs) should provide relevant information to participants, relevant authorities and the broader public.

Quantitative data is an important components of the set of public disclosures that is expected of FMIs as part of satisfying the PFMI.

Purpose of the disclosures

The disclosures are intended to support the objectives of enabling stakeholders, including authorities, participants (direct, indirect and prospective) and the public, to:

• compare Central Counterparty (CCP) risk controls, including their financial condition and financial resources to withstand potential losses;

- have a clear, accurate and full understanding of the risks associated with a CCP (in accordance with Principle 23, Key Consideration 5);
- understand and assess a CCP's systemic importance and its impact on systemic risk in all jurisdictions and currency areas for which it provides services, from which it has material membership or in which there are linked infrastructures; and
- understand and assess the risks of participating in CCPs (directly, and, to the extent relevant, indirectly).

Principle 23 states that FMIs should, at a minimum, disclose "basic data" on transaction volumes and values. Principle 23 also states that FMIs should disclose data on their financial condition, their financial resources to withstand potential losses, the timeliness of settlements, and other performance statistics. They should disclose sufficient information for participants and prospective participants to understand fully the risks of participating in the system. This disclosure is expected to be to the public rather than restricted to participants or members.

Frequency and type of disclosure

The matrix below details the quantitative disclosures as required in the Public Quantitative disclosure standards for central counterparties.

These standards can be accessed via the following link. http://www.bis.org/cpmi/publ/d125.htm

For each standard that requires a quantitative disclosure the matrix will display the following information:

- The principle number;
- The requirement of that principle (as specified in the standards);
- The quantitative disclosure as it applies to the CCP¹;
- The frequency period of updating this disclosure; and
- The period for which this disclosure relates

The common templates (csv files) and supporting documentation can be accessed via the following link:

http://www.asx.com.au/regulation/regulatory-compliance/asx-clear.htm

¹ All values are provided in Australian dollars unless otherwise indicated

Principle 4 – Credit Risk

		Requir	ement					
4.1	 Total value of default resources (excluding initial and retained variation margin), split by clearing service if default funds are segregated by clearing service, split by: (a) pre-funded i. own capital that forms part of the default waterfall (further split by whether used before, alongside, or after, member contributions) ii. aggregate participant contributions (both amount required and post-haircut amount posted, where different) iii. other (b) committed i. own/parent funds that are committed to address a participant default (or round of participant defaults) ii. aggregate participant commitments to address an initial participant default (or initial round of participant defaults) iii. aggregate participant commitments to replenish the default fund to deal with a subsequent participant default (or round of participant default) has been addressed iv. other 							
		t the end of this document for ad						
		urces of up to \$550m. This is component of the second seco	prised of a paid in default fund the	at has \$250m paid in resources				
		ault, the Clearing House will use t ad been collected from the defaul		cipant together with any				
		ASX Clear Total Default Reso	ources					
	Upto\$300m	Recovery Assessn	nents					
	\$100m	Equity (provided by A	s×)					
	\$75m	Subordinated D (provided by A		ation				
	\$3.5m	Equity (provided by A	SX)	Order of Applica				
	\$71.5m	Restricted Capital F	leserve	Orde				
		Defaulter's Margins, Addition Commitment	al Margins and					
		Paid in re Promisso	sources ry resources					
	Update Frequency:	Quarterly	Last Updated:	31 March 2016				

	Requirement						
4.2	KCCP Kccp need only be reported by those CCPs which are, or seek to be, a "qualifying CCP" under relevant law.						
	[Refer to the explanatory note a	t the end of this document for ad	ditional details]				
		Disclo	osure				
	 The KccP is a hypothetical capital requirement for a CCP, calculated for the purpose of determining the capital requirement on bank clearing member default fund contributions. A CCP's hypothetical capital requirement is driven by its counterparty credit risk exposures from its clearing members. The KccP does not represent the actual default resources for a CCP (the actual default resources are determined by the CCP's supervisor). As a qualifying CCP, ASX is required to calculate the default resources on bank clearing member default fund contributions on a monthly basis. The KccP (Hypothetical capital) for ASX Clear as at the reporting period was \$0.4m compared to actual default resources held of \$250m. 						
	Update Frequency: Quarterly Last Updated: 31 March 2016						

	Requirement						
4.3	Value of pre-funded default resources (excluding initial and retained variation margin) held for each clearing service, in total and split by:						
	 Cash deposited at a central bank of issue of the currency concerned Cash deposited at other central banks Secured cash deposited at commercial banks (including reverse repo) Unsecured cash deposited at commercial banks Non-cash sovereign government bonds domestic other agency bonds state/municipal bonds corporate bonds equities commodities gold other (please describe) mutual funds / UCITs other (please provide explanation of type of asset) 						
	Disclosure						
	Pre-funded default resources of \$250m (repayable upon demand) are provided in cash from ASX. These funds together with margins from ASX Clear and ASX Clear (Futures), default fund contributions lodged by participants of ASX Clear (Futures) and the CCPs own funds are combined into one portfolio and invested into various assets through a Trust. As the default resources cannot be individually assigned to specific asset classes, a general allocation has been made based on the proportion of the default resources to the total portfolio and this % has been applied to each asset class.						
	Investment Pre Haircut (m) Post Haircut (m)						
	Cash						
	Cash deposit at central bank of issue of currency	0.1	0.1				
	Unsecured cash deposit at commercial banks	68.8	68.8				

2.8	2.8
9.4	9.4
78.3	78.3
48.6	48.6
32.5	32.5
9.5	9.5
250.0	250.0
	9.4 78.3 48.6 32.5 9.5

Update Frequency: Quarterly	Last Updated: 31 March 2016
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		Requirement					
4.4	1) State wh resource	ether the CCP is subject to a minimum "Cover 1" or "Cover 2" requirement in relation to total pre-funded default 5.	t				
	2) For each clearing service, state the number of business days within which the CCP assumes it will close out the default when calculating credit exposures that would potentially need to be covered by the default fund.						
	3) For each clearing service, what is the <i>estimated</i> largest aggregate stress loss (in excess of initial margin) that would be caused the default of any <i>single</i> participant and its affiliates (including transactions cleared for indirect participants) in extreme b plausible market conditions?						
	4) Report the number of business days, if any, on which the above amount exceeded actual pre-funded default resources (in excess of initial margin) and by how much.						
	5) For each clearing service, what was the <i>actual</i> largest aggregate credit exposure (in excess of initial margin) to any <i>single</i> participant and its affiliates (including transactions cleared for indirect participants)?						
	6) For each clearing service, what is the <i>estimated</i> largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any <i>two</i> participants and their affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions?						
	7) Report the number of business days, if any, on which the above amount exceeded actual pre-funded default resources (in excess of initial margin) and by how much.						
	8) For each clearing service, what was the <i>actual</i> largest aggregate credit exposure (in excess of initial margin) to any <i>two</i> participants and their affiliates (including transactions cleared for indirect participants)?						
	[Refer to the explanatory note at the end of this document for additional details]						
		Disclosure					
	Ref	Result					
	1)	ASX Clear is subject to a "Cover 2" requirement					
	2)	ASX Clear assumes that it will close out a default within 3 business days					
	3)	Peak day amount in the previous 12 months (Cover 1)\$164.8mMean average over the previous 12 months (Cover 1)\$69.0m					

4)	The peak amount i \$250.0m	n the previous 12 months of \$164.8m did	l not exceed the pre-funded	default resources of
5)	5) Peak day amount in the previous 12 months (Cover 1) Mean average over the previous 12 months (Cover 1)			
6)		Peak day amount in the previous 12 months (Cover 2) Mean average over the previous 12 months (Cover 2)		
7)	The peak amount i \$250.0m	n the previous 12 months of \$18.8m did r	not exceed the pre-funded o	default resources of
			\$31.2m \$4.5m	
l	Update Frequency:	Quarterly	Last Updated:	31 March 2016

Principle 5 – Collateral

	Requirement							
5.1	Assets eligible as	initial margin, and the respective	e haircut	s applied				
	[Refer to the expl	anatory note at the end of this d	ocumen	t for additional details]				
	Disclosure							
	Subject to approval and on such conditions as ASX Clear may determine from time to time, the following may be provided in respect of margin:							
	Instrument	Approved Cover		Valuation Haircut	Provided for			
	Cash Cover	AUD Cash	6%	N/A if lodged against margin on an Exchange product denominated in the currency of the cover	Initial Margin Additional Initial Margin			
		Specific Cover	N/A 30% 14%					
		S&P / ASX 200 Securities			Initial Margin			
	Cash	SPDR S&P / ASX 200 ETF						
	Equities Bank Guarantees (only in exceptional circumstances and with the prior approval of ASX Clear)			N/A	Initial Margin			
		e link below for a list of acceptab om.au/regulation/regulatory-co		Equity securities and their relevant hair e/asx-clear.htm	cuts.			
	Updat	e Frequency: When chan	ges mad	e Last Updated:	31 March 2016			

	Requirement						
5.2	Assets eligible for pre-funded participant contributions to the default resources, and the respective haircuts applied (if different from 5.1)						
	Disclosure						
	The ASX Clear default resources do not contain any pre-funded participant contributions.						
	Update Frequency:	When changes made	Last Updated:	31 March 2016			

	Requirements					
5.3	 Results of testing of haircuts – please state the: confidence interval targeted through the calculation of haircuts assumed holding/liquidation period for the assets accepted, look-back period used for testing the haircuts, the number of days during the look-back period on which the fall in value during the assumed holding/liquidation period exceeded the haircut on an asset. [Refer to the explanatory note at the end of this document for additional details] 					
	Disclosure					
	Back testin	g of Collateral haircut	s is performed on a quarterly	/ basis co	vering the previous 12 montl	ns.
	Ref	Item			Result	
	1	Confidence Interva	l Targeted		99.99%	
	2	Assumed Holding /	Liquidation Period		3 days business days	
	3	Look-back Period		2	62 days business days	
4 Number of days exceeded the Haircut 68*						
	*Note – The 68 breaches were over 52,400 observations giving a coverage of 99.99%					
	Update Frequency: Quarterly Last Updated: 31 March 2016					

Principle 6 – Margin

Initial Margin

	Requirement						
6.1	For each clearing service, total initial margin <i>required</i> , split by house and client (or combined total if not segregated)						
	For each clearing service, state whether initial margin for the positions of indirect participants must be provided for each indirect participant's own position (gross), or for the net position of a group of indirect participants ("net" or "net omnibus")						
	[Refer to the explanatory note at the end of this document for additional details]						
	Disclosure						
	ASX Clear faces each clearing participant as principal (e.g. House) for all Cash Equities transactions. For Exchange Traded Options each client has their own individual Client Account (ICA).						
	Туре	(m)					
	Cash Equities - House (Gross)	\$114.7					
	ETO - House (Gross)	\$226.4					
	ETO – Client (Gross) \$861.4						
	Update Frequency:	Quarterly	Last Updated:	31 March 2016			

	Requirement				
6.2	For each clearing service, total initial margin <i>held</i> , split by house and client (if segregated).				
	For each of the overall house and client totals (or for just the overall total posted, if house and client are not segregated), the amounts of:				
	 Cash deposited at a central bank of issue of the currency concerned Cash deposited at other central banks Secured cash deposited at commercial banks (including reverse repo) Unsecured cash deposited at commercial banks Non-cash sovereign government bonds domestic other agency bonds state/municipal bonds corporate bonds equities commodities gold other mutual funds / UCITs other (please provide explanation of type of asset) Amounts should be reported both pre-haircut (i.e. at market value) and at post-haircut value.				
	Disclosure				
	Cash margins and default fund contributions lodged by participants of ASX Clear and ASX Clear (Futures) and the CCPs own funds are combined into one portfolio and invested into various assets through a Trust.				

Update Frequency:

As the initial margins cannot be individually assigned to specific asset classes, a general allocation has been made based on the proportion of the initial margin lodged to the total portfolio and this % has been applied to each asset class.

This table also includes non-cash collateral (including any excess collateral) that has been lodged by any of the clearing participants.

	Но	use	Client	
Investments	Pre Haircut (m)	Post Haircut (m)	Pre Haircut (m)	Post Haircut (n
Cash				
Cash deposit at central bank of issue of currency	0.1	0.1	0.1	0
Unsecured cash deposit at commercial banks	90.4	90.4	98.2	98
Non-Cash				
State / municipal bonds	3.6	3.6	3.9	3
Corporate Bonds	12.4	12.4	13.4	13
Equities	9.0	6.3	720.9	504
Other – Floating Rate Notes	102.8	102.8	111.6	111
Other – Negotiable Certificates of Deposit	63.9	63.9	69.4	69
Other – Promissory Notes	42.7	42.7	46.3	46
Other – Treasury Notes	12.5	12.5	13.6	13
Other - Bank Guarantees	0	0	14.7	14
Total	337.4	334.7	1,092.1	875

		Requir	ement		
6.3	Initial margin rates on individual contracts, where the CCP sets such rates				
	[Refer to the explanatory note at the end of this document for additional details]				
	Disclosure				
	Refer to the link below for the ASX Clear SPAN margin parameters and Cash Market margin parameters				
	http://www.asx.com.au/regulation/regulatory-compliance/asx-clear.htm				
	Update Frequency:	When changes made	Last Updated:	31 March 2016	

Quarterly

Last Updated:

31 March 2016

	Requirement
6.4	Type of initial margin model used (e.g. portfolio simulation or risk aggregation) for each clearing service and the key model design parameters for each initial margin model applied to that clearing service – key parameters including, but not limited to: (i) single-tailed confidence level targeted; (ii) sample/data look-back period for calibrating the model; (iii) adjustments or scalars or weighting, if any, applied to historical data (e.g. to reflect changes in volatility); (iv) close-out/holding periods by product (or, if varying, contract type); (v) for risk aggregation models, the margin rate per contract and details of the offsets between different contracts [e.g. for SPAN style models this might include inter-month spread charges and inter-contract spread credits]; (vi) the frequency of parameter reviews. [Refer to the explanatory note at the end of this document for additional details]

RefItem(i)Single-tailed con level targetedRefItem(ii)sample/data loc period for calibrithe model(iii)Adjustments, sc weighting	nfidence SPAN SPAN ok-back rating calars or Not strictly form back periods co both short and	N (Derivatives) 99.7% N (Derivatives) 1 Year mulaic. Multiple look- onsidered incorporating long term periods (60, ays and 12 months).	HSVaR (Ed 99.7 HSVaR (Ed HSVaR (Ed HSVaR = 5 Flat Rate = HsVaR contributions for calculated on 99% confi then a portfolio add on added to construct a rei the desired 99.7% marg	% quities) 02 days = 1 Year r securities are idence interval and factor of 30% is liable estimate of	
Ref Item (ii) sample/data loc period for calibr the model (iii) Adjustments, sc	ok-back rating calars or Not strictly form back periods co both short and	N (Derivatives) 1 Year nulaic. Multiple look- onsidered incorporating long term periods (60,	HSVaR (EC HSVaR = 5 Flat Rate = HsVaR contributions for calculated on 99% confi then a portfolio add on added to construct a ref	quities) 02 days = 1 Year r securities are idence interval and factor of 30% is liable estimate of	
 (ii) sample/data loc period for calibr the model (iii) Adjustments, sc 	ok-back rating calars or Not strictly form back periods co both short and	1 Year nulaic. Multiple look- nsidered incorporating long term periods (60,	HSVaR = 5 Flat Rate = HsVaR contributions for calculated on 99% confi then a portfolio add on added to construct a re	02 days = 1 Year r securities are idence interval and factor of 30% is liable estimate of	
period for calibric the model (iii) Adjustments, sc	calars or Not strictly form back periods co both short and	nulaic. Multiple look- onsidered incorporating long term periods (60,	Flat Rate = HsVaR contributions for calculated on 99% confi then a portfolio add on added to construct a rel	= 1 Year r securities are idence interval and factor of 30% is liable estimate of	
	back periods co both short and	onsidered incorporating long term periods (60,	calculated on 99% confi then a portfolio add on added to construct a re	idence interval and factor of 30% is liable estimate of	
			Ŭ	gin coverage.	
			The "add on" factor is a for statistical uncertaint reliable estimate of the margin coverage.	ty and construct a	
(iv) Close-out / hold Periods	ding	3 Days	HSVaR = Top 500 = 1 da Flat Rate ASX Top 200 = Flat Rate ASX Next 300 Flat Rate Interest Rate S Flat Rate Warrants = 3 o Flat Rate Non-All Ordina	- 1 day = 2 day Securities = 3 days days	
(v) Offsets between different contra				http://www.asx.com.au/regulation/regula ory-compliance/asx-clear.htm	
(vi) Frequency of re	eviews	Monthly	Quarte	erly	
Update Frequenc	cy: Quarterly		Last Updated:	31 March 2016	

			Requirement					
6.5	Results of back-test applied to that clear	0	imum, this should include,	for each clearing service and each initial margin model				
	to-market exp (b) Number of ob (c) Achieved cove * Specify if measu Where breaches of	 to-market exposure of that member account – based on daily back-testing results* (b) Number of observations (i.e. number of accounts multiplied by number of days covered in the back test) (c) Achieved coverage level, i.e. [(b) – (a)]/(b) 						
	Disclosure							
	Ref	ETO's	Cash Market					
	(a)	2,283	21					
	(b)	2,214,580	8,390					
	(c)	99.9%	99.7%					

Peak		\$2.7m		\$5.7m		
Average		\$0.0m		\$0.9m		
Update F	requency:	Quai	terly		Last Updated:	31 March 2016

Margin Calls

	Requirement				
6.6	Average total variation margin paid to the CCP by participants each business day.				
	[Refer to the explanatory note at the end of this document for additional details]				
	Disclosure				
	Average total variation margin paid to the CCP by participants each business day over the quarter. \$54.8m				
	Update Frequency:	Quarterly	Last Updated:	31 March 2016	

	Requirement					
6.7	Maximum total variation margin paid to the CCP on any given business day over the period.					
	Disclosure					
	Maximum total variation margin paid to the CCP on any given business day over the quarter. \$215.7m					
	Update Frequency:	Quarterly	Last Updated:	31 March 2016		

_	Requirement					
6.8	Maximum aggregate initial margin call on any given business day over the period.					
	Disclosure					
	Maximum aggregate initial margin call on any given business day over the quarter. \$75.3m					
	Update Frequency:	Quarterly	Last Updated:	31 March 2016		

Principle 7 – Liquidity Risk

	Requirement					
S	State whether the clearing servi	ice maintains sufficient liquid reso	urces to 'Cover 1' or	'Cover 2'.		
s ((() () () ()	 service level) – for each relevant (a) Cash deposited at a centra (b) Cash deposited at other cash deposited at other cash (c) Secured cash deposited at (d) Unsecured cash deposited (e) secured committed lines committed foreign exchart (f) unsecured committed lines (g) highly marketable collate 	al bank of issue of the currency con entral banks t commercial banks (including reve	ncerned rrse repo) lateral/security will draw without provi ents that are readi	be provided ding collatera ly available a	by the CCP if drawn) includinį al/security); and convertible into cash witl	
State whether the CCP has routine access to central bank liquidity or facilities.						
 If, in using qualifying liquid resources the CCP is required or allowed to give priority to meeting certain payment obligations, provide or reference: the schedule of payments or priority for allocating payments, if such exists; 						
any applicable rule, policy, procedure, and governance arrangement around such decision making.						
Disclosure						
i	into various assets through a Tre	learing houses together with the C ust, a general allocation has been folio and this % has been applied to	made based on the p	proportion of		
i c	into various assets through a Tri clearing house to the total portf ASX Clear maintains sufficient lie	ust, a general allocation has been folio and this % has been applied to	made based on the p	proportion of	the portfolio lodged by each	
i c	into various assets through a Tri clearing house to the total portf ASX Clear maintains sufficient lic Investments	ust, a general allocation has been folio and this % has been applied to quid resources for Cover 2.	made based on the p	proportion of	the portfolio lodged by each Value (m)	
i c	into various assets through a Tri clearing house to the total portf ASX Clear maintains sufficient lic Investments Cash deposited at central bar	ust, a general allocation has been folio and this % has been applied to quid resources for Cover 2. nk of issue of the currency	made based on the p o the relevant asset	proportion of	the portfolio lodged by each Value (m) 0.3	
i c	into various assets through a Tri clearing house to the total portf ASX Clear maintains sufficient lin Investments Cash deposited at central ban Secured cash deposited at co	ust, a general allocation has been folio and this % has been applied to quid resources for Cover 2. nk of issue of the currency ommercial banks (including reverse	made based on the p o the relevant asset	proportion of	the portfolio lodged by each Value (m) 0.3 0	
i c	into various assets through a Tri clearing house to the total portf ASX Clear maintains sufficient line Investments Cash deposited at central ban Secured cash deposited at co Unsecured cash deposited at	ust, a general allocation has been folio and this % has been applied to quid resources for Cover 2. nk of issue of the currency ommercial banks (including reverse t commercial banks held in custody & investments tha	made based on the p o the relevant asset e repo)	proportion of	the portfolio lodged by each Value (m) 0.3	
i c	into various assets through a Tri clearing house to the total portf ASX Clear maintains sufficient line Investments Cash deposited at central ban Secured cash deposited at co Unsecured cash deposited at Highly marketable collateral	ust, a general allocation has been folio and this % has been applied to quid resources for Cover 2. nk of issue of the currency ommercial banks (including reverse t commercial banks held in custody & investments tha	made based on the p o the relevant asset e repo)	proportion of	the portfolio lodged by each Value (m) 0.3 0 66.8	
i c c c c c c c c f f	into various assets through a Tri clearing house to the total portf ASX Clear maintains sufficient lie Investments Cash deposited at central bar Secured cash deposited at co Unsecured cash deposited at co Unsecured cash deposited at co Highly marketable collateral available and convertible into Any cash reinvestments are only obligations ASX Clear has a committed stan \$100m from ASX Limited backed For Cash Equities, in the event of	ust, a general allocation has been applied to folio and this % has been applied to quid resources for Cover 2. Ink of issue of the currency commercial banks (including reverse to commercial banks held in custody & investments that to cash y in RBA eligible securities and ASX dby (undrawn) liquidity facility of to d by a commercial bank line.	made based on the p o the relevant asset e repo) t are readily Clear is not require \$150m. This compris X also has the ability	oroportion of class. d to give prio ses of \$50m fr to enter into	the portfolio lodged by each Value (m) 0.3 0 66.8 677.3 744.4 rity in meeting payment rom ASX Limited and a further	
i c //	into various assets through a Tri clearing house to the total portf ASX Clear maintains sufficient lie Investments Cash deposited at central bar Secured cash deposited at co Unsecured cash deposited at co Unsecured cash deposited at Highly marketable collateral available and convertible into Any cash reinvestments are only obligations ASX Clear has a committed stan \$100m from ASX Limited backed For Cash Equities, in the event of Arrangement (OTA) for any outs	ust, a general allocation has been applied to folio and this % has been applied to quid resources for Cover 2. Ink of issue of the currency commercial banks (including reverse to commercial banks held in custody & investments that to cash y in RBA eligible securities and ASX dby (undrawn) liquidity facility of to d by a commercial bank line.	made based on the p o the relevant asset e repo) t are readily Clear is not require \$150m. This compris X also has the ability a non-defaulting Clear	oroportion of class. d to give prio ses of \$50m fr to enter into aring Particip	Value (m) 0.3 0 66.8 677.3 744.4 rity in meeting payment rom ASX Limited and a further an Offsetting Transaction ant. It is expected that available	

	Requirement					
7.2	Size and composition of any sup above.	plementary liquidity risk resource	s for each clearing service above t	hose qualifying liquid resources		
	[Refer to the explanatory note at the end of this document for additional details]					
	Disclosure					
	There are no supplementary liquidity risk resources beyond what has been detailed in principle 7.1 for ASX Clear.					
	Update Frequency:	Quarterly	Last Updated:	31 March 2016		

			Requirement		
.3	For each clearing service (or at the aggregate CCP level if not managed at clearing service level):				
 What is the <i>estimated</i> largest same-day and, where relevant, intraday and multiday payment obligation in total that caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) is but plausible market conditions? Report the number of business days, if any, on which the above amount exceeded its qualifying liquid resources (ident 7.1, and available at the point the breach occurred), and by how much. What is the <i>actual</i> largest intraday and multiday payment obligation of a single participant and its affiliates (including transactions cleared for indirect participants) over the past twelve months? What is the <i>estimated</i> largest same-day and, where relevant, intraday and multiday payment obligation <i>in each relevan</i> that would be caused by the default of any single participant and its affiliates (including transactions cleared for participants) in extreme but plausible market conditions? Report the number of business days, if any, on which the above amounts exceeded its qualifying liquid resources in each currency (as identified in 7.1 and available at the point the breach occurred), and by how much. Refer to the explanatory note at the end of this document for additional details] 					
	[Refer to the explana	tory note at the end of this docu	ument for additional details] Disclosure		
	[Refer to the explana	tory note at the end of this docu	-		
		·	-		
	Ref	Result	-		
	Ref 1)	Result \$834.2m* 47 days	-		
	Ref 1) 2)	Result \$834.2m* 47 days \$117.7m	-		
	Ref 1) 2) 3)	Result \$834.2m* 47 days \$117.7m Peak \$204.8m	-		
	Ref 1) 2) 3) 4) 5)	Result \$834.2m* 47 days \$117.7m Peak \$204.8m \$1,500.8m* 61 days \$496.9m	-	nts (refer 7.1)	

Principle 12 – Exchange of Value Settlement System

			Requir	ement				
12.1	Percentage of	Percentage of settlements by value effected using a DvP, DvD or PvP settlement mechanism						
	[Refer to the	explanatory note at	the end of this document for ad	lditional details]				
			Discl	osure				
	, ,	Only Cash Equities transactions are settled through a Delivery vs. Payment (DvP) settlement mechanism as Exchange Traded Options are settled via the margining process.						
	trades) transa netted ³ per se The balance c	Cash Equities transactions are novated to the Clear immediately after bid/offer matched on the trading platform, or (for reported trades) transaction is recorded by the market operator ² . Then on the evening of Trade Date +1 (T+1) the novated transactions are netted ³ per security for settlement on T+3. The balance of transactions include the movement of stock between clearing participants and their clients to facilitate the						
	settlement of	the DvP transaction	ns.					
	Туре	Percentage						
	DvP	100%						
	DvD	N/A						
	ΡνΡ	N/A						
	Uţ	odate Frequency:	Quarterly	Last Updated:	31 March 2016			

			Requir	rement			
12.2	Percentage of settlements by volume effected using a DvP, DvD or PvP settlement mechanism						
	[Refer to the explanatory note at the end of this document for additional details]						
		Disclosure					
	Only Cash Equities transactions are settled through a Delivery vs. Payment (DvP) settlement mechanism as Exchange Traded Options are settled via the margining process. Cash Equities transactions are novated to ASX Clear immediately after bid/offer matched on the trading platform, or (for reported trades) transaction is recorded by the market operator. Then on the evening of Trade Date +1 (T+1) the novated transactions are						
	netted per sec	curity for settlement	on T+3.				
	Туре	Percentage					
DvP		100%					
	DvD	N/A					
	ΡνΡ	N/A					
	Up	date Frequency:	Quarterly	Last Updated:	31 March 2016		

² In either case the transaction must subsequently be submitted to ASX Clear and validated for eligibility, if the transaction is eligible for clearing, the transaction is novated with effect from this point, if it is not, the transaction is rejected.

³ Excluding Broker / Broker transactions that have been novated but isolated from netting due to a corporate action etc.

Principle 13 – Default Rules and Procedures

		Requir	ement	
13.1	CCPs are encouraged, subject to legal constraints on timing and content, to disclose as soon as practicable quantitative information related to defaults, such as:			
	 Amount of loss versus amount of initial margin Amount of other financial resources used to cover losses Proportion of client positions closed-out/ported Appropriate references to other published material related to the defaults may also be helpful. 			
	Disclosure			
	There were no ASX Clear Clearing Participant defaults in the reporting period.			
	Refer to the following link for an overview on default management:			
	http://www.asx.com.au/services/clearing/default-management.htm			
	Update Frequency:	Ad Hoc	Last Updated:	31 March 2016

Principle 14 – Segregation and Portability

		Requirement				
14.1	Split, by clearing service, of total client positions held in:					
	 (a) individually segregated accounts; (b) omnibus client-only accounts, other than LSOC accounts (see below); (c) legally segregated but operationally comingled (LSOC) accounts; (d) comingled house and client accounts; 					
	as a share of no	otional values cle	ared or of the settlement value of	securities transactions.		
	[Refer to the ex	planatory note a	at the end of this document for ad	ditional details]		
			Discl	osure		
	ASX Clear operation	ates a principal t	o principal model for Cash Equities	s and Exchange Traded Options.		
	For Exchange Traded Options ASX Clear has an account structure that provides each client with an individual segregated accounts whereas for Cash Equities all positions are registered into the name of the Clearing Participant e.g. there is no look through to their underlying clients.					
	Ref	Result				
	(a)	100% (1)				
	(b)	0				
	(c)	0				
	(d) N/A (2)					
		xchange Traded comments abov	Options only e regarding Cash Equities			
	Upc	late Frequency:	Quarterly	Last Updated:	31 March 2016	

Principle 15 – General Business Risk

		Requirement				
15.1	 (a) Value of liquid net assets funded by equity (b) Six months of current operating expenses 					
	[Refer to the explanatory note at the end of this document for additional details]					
	Disclosure					
	Capital to cover General Business Risk is held at the holdings company level and not the individual clearing house. \$15.0m is assigned for ASX Clear business risk.					
	Update Frequency:	Annual	Last Updated:	30 June 2015		

	Requirement				
15.2	Financial disclosures: including, but not limited to,				
	 total revenue, total expenditure, profits, total assets, total liabilities. 				
	Explain if collateral posted by clearing participants is held on or off the CCP's balance sheet.				
		Disc	losure		
	ASX Clear has entered into an arrangement with a related entity for the provision of operational services and assets in exchange for the assignment of clearing fees. Accordingly ASX Clear does not have any meaningful revenues or expenses within the entity itself. The total assets and liabilities of ASX Clear as at 30 June 2015 are provided below and relate primarily to their own capital and				
	collateral lodged by participants.				
	Total Assets Total Liabilities	<u>ASX Clear</u> \$988.1m \$810.0m			
	As at 30 June 2015, collateral lodged by clearing participants was as follows:				
	Cash Equity Securities & Guarantees	<u>ASX Clear</u> On balance sheet Off balance sheet			
	Update Frequency:	Annual	Last Updated:	30 June 2015	

_	Requirement					
15.3		 Income breakdowns: percentage of total income that comes from fees related to provision of clearing services; percentage of total income that comes from the reinvestment (or rehypothecation) of assets provided by clearing participants. 				
	Disclosure					
	Clearing fees for derivatives are bundled with trading and settlement fees. All these fees are assigned to a related entity as disclosure in 15.2 above					
	Update Frequency:	Annual	Last Updated:	30 June 2015		

Principle 16 – Custody and Investment Risk

		Requir	ement		
16.1	Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, split by whether it was received as initial margin or default fund contribution				
	Disclosure				
	\$671.2m received from ASX Clear Clearing Participants as Initial Margin.				
	Note – There are no Clearing Participant contributions in the ASX Clear default fund.				
	Update Frequency:	Quarterly	Last Updated:	31 March 2016	

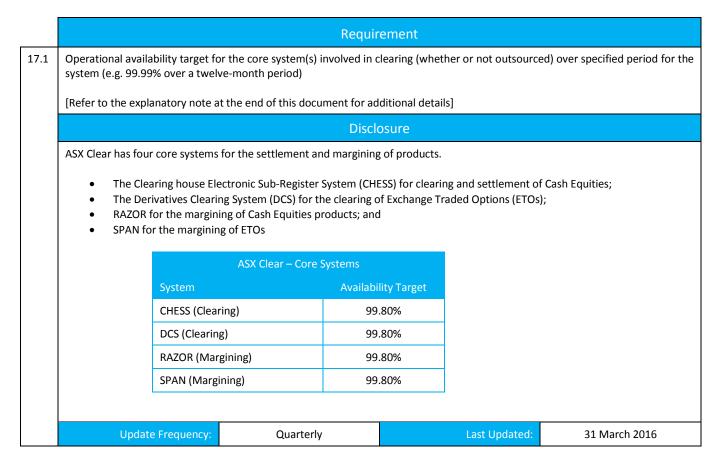
_	Requirement
16.2	How the total cash received from participants (i.e. the combined total of initial margin and default fund contributions in 16.1) is held/deposited/invested, including:
	 percentage of this total participant cash held as cash deposits (including through reverse repo); further split into: percentage held: as cash deposits at central banks of issue of the currency deposited; as cash deposits at other central banks; as cash deposits at commercial banks; as cash deposits at commercial banks; of which:
	Also: • weighted average maturity of these securities
	Provide an estimate of the risk on the investment portfolio (excluding central bank and commercial bank deposits) (99% one-day VaR, or equivalent)
	State if the CCP investment policy sets a limit on the proportion of the investment portfolio that may be allocated to a single counterparty, and the size of that limit.
	State the number of times over the previous quarter in which this limit has been exceeded.
	Disclosure
	Margins and default funding lodged by participants of ASX Clear and ASX Clear (Futures) and the CCPs own funds are combined into one portfolio and invested into various assets.
	As the total cash received from Participants cannot be individually assigned to specific asset classes, a general allocation has been made based on the proportion of the cash received from Participants to the total portfolio and this % has been applied to each asset class.

Investment			Percentag
Central bank of issue of the cu	rrency deposited		0.03%
Unsecured cash deposits at co	mmercial banks		27.53%
	% of total participant ca	ash held as cash deposits (incl. reverse repo):	27.56%
State / municipal bonds			1.10%
Dther - Corporate Bonds			3.77%
Other – Floating Rate Notes			31.30%
Other – Negotiable Certificates	s of Deposit		19.47%
Other – Promissory Notes			12.99%
Other – Treasury Notes			3.81%
	% 01	f total participant cash invested in securities:	72.44%
Weighted average maturity of	these securities (WAM)		97.46 day
	ant portfolio (VaR - 2 day holdin	g period calculated at 99% confidence)	\$262,979
Estimated risk on the Investme		g period calculated at 33% confidence)	\$202,975
Estimated risk on the Investme		Limit (\$) per Counterparty*	Ş202,975
		· · ·	\$202,973
Counterparty		Limit (\$) per Counterparty*	\$202,975
Counterparty Australian Government		Limit (\$) per Counterparty* Unlimited	\$202,975
Counterparty Australian Government Major Australian Deposit-takin		Limit (\$) per Counterparty* Unlimited \$775m	\$202,975
Counterparty Australian Government Major Australian Deposit-takin State Government	ng Institution	Limit (\$) per Counterparty* Unlimited \$775m \$400m	\$202,975
Counterparty Australian Government Major Australian Deposit-takin State Government Supra-Nationals	ng Institution	Limit (\$) per Counterparty* Unlimited \$775m \$400m \$300m	\$202,979

	Requirement				
16.3	Rehypothecation of participant assets (i.e. non-cash) by the CCP where allowed, split by initial margin and default fund:				
	 total value of participant non-cash rehypothecated; maturities (overnight/one day; over one day and up to one week; over one week and up to one month; over one month and up to one year; over one year and up to two years; over two years); 				
	Disclosure				
	The value of participants' non-cash collateral re-hypothecated as at quarter end was nil as re-hypothecation of collateral is not permitted.				
	Update Frequency:	Quarterly	Last Updated:	31 March 2016	

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Principle 17 – Operational Risk



				Requirement					
17.2	Actual availability	tual availability of the core system(s) over the previous twelve month period.							
			Disclosure						
	All ASX Clear core systems have had 100% availability over the last 12 months								
		ASX Clear – Core Systems							
		System		Availability					
		CHESS (Clear	ing)	99.57%					
		DCS (Clearing	<u>;</u>)	100.00%					
		RAZOR (Mar	gining)	100.00%					
		SPAN (Margi	ning)	100.00%					
	Updat	e Frequency:	Quarterly		Last Updated:	31 March 2016			

	Requirement					
17.3	Total number and duration of failures affecting the core system(s) involved in clearing over the previous twelve month period					
	Disclosure					
	There was one failure with the ASX Clear core systems for the last 12 months					

System	Number of Failures	Duration (Mins)
CHESS (Clearing)	1	60
DCS (Clearing)	0	0
RAZOR (Margining)	0	0
SPAN (Margining)	0	0

			Requirement		
.7.4	Recovery time objective(s) (e.g	within two hours)			
			Disclosure		
All ASX Clear core systems are subject to a 2 hour recovery time objective.					
		ASX Clear – Core Systems			
	System		Recovery Time Objective		
	CHESS (Clea	ring)	2 Hours		
	DCS (Clearin	ng)	2 Hours		
	RAZOR (Ma	rgining)	2 Hours		
	SPAN (Mar	ining)	2 Hours		
				- 	
	Update Frequency:	Quarte	rly	Last Updated:	31 March 2016

Principle 18 – Access and Participation requirements

Requirements							
Number	r of clearing members, by cleari	ing service, split by:					
• ty	 type of participant (central bank, CCP, bank, other); and 						
[Refer to	[Refer to the explanatory note at the end of this document for additional details]						
	Disclosure						
On ASX	Clear there are two categories	of Clearing Participants, "Dire	ct: and "General":				
own Clie "Genera	 "Direct Participant" means a Participant which is admitted by ASX Clear to clear a category of Market Transaction for itself, its own Clients and Market Participants that are Wholly-Owned Group Entities and their clients. "General Participant" means a Participant which is admitted by ASX Clear to clear a category of Market Transaction for itself, its own Clients, other Participants and their Clients and Market Participants and their Clients and their Clients. 						
	Category of Membership	Type of Participant	Domestic	Foreign			
Direct Bank O				0			
	Direct	Bank Subsidiary	5	0			
	Direct	Investment Bank	8	0			
	Direct	Domestic	10	0			
	Direct	International	1	0			
	Direct	Suspended	1	0			
		Total Direct Participants	25	0			
	General	Bank	1	1			
	General	Bank Subsidiary	5	0			
	General	Investment Bank	2	0			
	General	Domestic	2	0			
	General	International	1	0			
	General	Suspended	0	0			
		Total General Participants	11	1			
		·					
		Grand Total	36	1			
	Update Frequency:	Quarterly	Last Updat	ted: 31 March 2016			

Percentage of open positions held by the largest five clearing members, including both house and client, in aggregate

For each clearing service with 25 or more members:

- Percentage of open positions held by the largest five and ten clearing members, including both house and client, in aggregate

[Refer to the explanatory note at the end of this document for additional details]

Disclosure

As detailed in 18.1 at the time of the update ASX Clear had 37 Clearing Participants. Percentage of open positions held by the largest five and ten clearing participants were:

	Largest 5 Clea	ring Participants	Largest 10	Clearing Participants
Cash Equities - Average	41	41.96%		70.24%
Cash Equities - Peak end of day	47	⁷ .67%		76.66%
ETO – Average	64	1.76%		84.91%
ETO – Peak end of day	66	5.71%		85.66%
		· · · · · · · · · · · · · · · · · · ·		
Update Frequency:	Quarterly	Last L	Jpdated:	31 March 2016

	Requirement					
18.3	For each clearing service with ten or more members, but fewer than 25 members:					
	- Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate					
	For each clearing service with 25 or more members:					
	- Percentage of initial margin posted	by the largest five and ten clearing me	mbers, including both	house and client, in aggregate		
	[Refer to the explanatory note at the end of this document for additional details]					
		Disclosure				
	As detailed in 18.1 at the time of the upd largest five and ten clearing participants		ants. Percentage of ini	tial margin held by the		
		Largest 5 Clearing Participa	ints Largest	10 Clearing Participants		
	Cash Equities - Average	40.47%		64.46%		
	Cash Equities - Peak end of day	60.31%		75.96%		
	ETO – Average	56.47%		81.79%		
	ETO – Peak end of day 60.18% 84.67%					
	Update Frequency:	Quarterly	Last Updated:	31 March 2016		

	Requirement					
18.4	For each segregated default fund with ten or more members, but fewer than 25 members:					
	- Percentage of participant contributions to the default fund contributed by largest five clearing members in aggregate					
	For each segregated default fund with 25 or more members: - Percentage of participant contributions to the default fund contributed by largest five and ten clearing members in aggregate					
	[Refer to the explanatory note at the end of this document for additional details]					
	Disclosure					

At the time of the update the ASX Clear default fund of \$250m contained no ASX Clear Clearing Participant contributions.					
Update Frequency:	Quarterly	Last Updated:	31 March 2016		

Principle 19 – Tiered Participation arrangements

		Requirement					
19.1	9.1 Measures of concentration of client clearing:						
	 Number of clients (if known) Number of direct members that clear for clients Per cent of client transactions by clearing service (by total gross notional for derivatives or total cleared value of securities transactions or similar) attributable to the top five clearing members (if the CCP has ten or more clearing members) and the ten clearing members (if the CCP has 25 or more clearing members) [Refer to the explanatory note at the end of this document for additional details] 						
		Disclosure					
	Ref	Result					
	1.	44 ASX Market Participants, and					
		2 CHI-X Trading Participants that clear through a direct member					
	2.	10 Direct members clear for the above					
	3.	Top 5 = 47%					
	3.	Top 10 = 52%					
			_				
	l	Update Frequency: Quarterly L	Last Updated:	31 March 2016			

Principle 20 – FMI Links

Interoperability

	Requirement						
20.1	Value of trades cleared through service	each link, by clearing service – as	a share of total trade values/tota	l notional values cleared in that			
	[Refer to the explanatory note at the end of this document for additional details]						
	Disclosure						
	ASX Clear has the following FMI Links:						
	 ASX Settlement Pty Limited; and Austraclear Limited ASX Clear does not transact through either of these FMI Links.						
	Update Frequency:	Quarterly	Last Updated:	31 March 2016			

	Requirement							
20.2	Initial margin or equivalent financial resources <i>provided to</i> each linked CCP by the CCP to cover the potential future exposure of the linked CCP on contracts cleared across link							
	Disclosure							
	Not Applicable							
	Update Frequency:	Quarterly	Last Updated:	31 March 2016				

		Requir	ement	
20.3	Initial margin or equivalent finar on contracts cleared across link	-	ch linked CCP to cover potential fu ;)	ture exposure to the linked CCP
		Discl	osure	
	Not Applicable			
	Update Frequency:	Quarterly	Last Updated:	31 March 2016

			Requir	ement	
20.4		ts of back-testing of cover num this should include:	age of initial margin or equivale	nt financial resources on trades	cleared through each link. At a
			•	age provided by margin and equ arket exposure to that linked CC	
	(c)	•		l by number of days covered in the ed intraday/continuously or only o	,
			Discl	osure	
	Not A	pplicable			
		Update Frequency:	Quarterly	Last Updated:	31 March 2016

CCP, that are available to the link	ked CCP to cover exposures to		•	
Disclosure				
Not Applicable				
Update Frequency:	Quarterly	Last Updated:	31 March 2016	
ta	P, that are available to the link andard default fund (please spe ot Applicable	P, that are available to the linked CCP to cover exposures to andard default fund (please specify) Discl ot Applicable	Disclosure Disclosure	

Requirement 20.6 Additional pre-funded financial resources (if any) beyond initial margin and equivalent financial resources collected from each linked CCP, that are available to the CCP to cover exposures to the linked CCP and whether part of, additional to, or separate from the standard default fund (please specify) Disclosure Not Applicable Update Frequency: Quarterly Last Updated: 31 March 2016

Cross Margining

		Requir	rement	
20.7			, as a percentage of total trade valu cross margining, as a percentage o	-
		Discl	osure	
	Not Applicable			
	Update Frequency:	Quarterly	Last Updated:	31 March 2016

Principle 23 – Disclosure of Rules, Key Procedures and Market Data

			Requir	eme	ent		
23.1	Average daily volumes and notional values of new trades cleared, by instrument/asset class, by currency, and split by OTC or exchange-traded						
	[R	Refer to the explanatory note at the en	d of this document for ad	ditio	nal details]		
	Disclosure						
		he metrics below for Exchange Traded ased on the novated settlement instruc	tions with a settlement d		due in the reporting quarte		
		Exchange Traded Instrument	Volume (k)		Value (m)		
		Equities	925.3	3	4,020.5		
		Structured Products	1.4	Ļ	9.1		
	Interest Rate Hybrid		0.4	Ļ	6.8		
		Exchange Traded Funds	2.4	Ļ	56.6		
		Australian Government Bonds	0.0)	0.4		
		Company Options	0.7	,	0.3		
		Exchange Traded Options	0.5	5	113.1		
		Non - Exchange Traded Instrument	Volume		Value (m)		
		Equity OTC	0.0)	0.0		
		1	1				
		Update Frequency:	Quarterly		Last Updated	31 March 2016	

Requirement

23.2 Gross notional outstanding/total settlement value of novated but not-yet settled securities transactions per instrument/asset class and currency and split by OTC or exchange-traded

[Refer to the explanatory note at the end of this document for additional details]

Disclosure

The metrics below are based on the novated settlement instructions with a settlement date during the quarter.

Equities	10,732.3	
Structured Products	20.8	
Interest Rate Hybrid	21.9	
Exchange Traded Funds	160.8	
Australian Government Bonds	1.1	
Company Options	2.4	

			Requirement			
23.3	Average daily volumes and notional contract values submitted by each execution facility or matching/confirmation venue					
	[Refer to the explanatory note at the end of this document for additional details]					
	Disclosure					
	For Cash Equities the metrics below are based on the novated settlement instructions with a settlement date between within the reporting quarter. For Exchange Traded Options the metrics are based on number of trades. Execution Eacility Cash Equities Exchange Traded Options Exchange Traded Options					
	For Exchange Traded	Cash Equities	Cash Equities	Exchange Traded Options		
			Cash Equities Average Daily Value (m)		Exchange Traded Options Average Daily Value (m) 113.1	
	Execution Facility	Cash Equities Average Daily Volume (k)	Cash Equities	Exchange Traded Options Average Daily Volume (k)	Average Daily Value (m)	

Principle by Principle Notes

Below are the principle by principle notes provided as part of the Public Quantitative Disclosure Standards for Central Counterparties

Principle 4: Credit risk

Item 4.1: This item seeks disclosure of default resources that are available to cover a member default should the margin or equivalent (for example sums paid in by participants to cover their options liabilities) paid by participants to cover their own liabilities to the CCP prove insufficient.

4.1(a)(i) should be identical to DFCCP as defined in BCBS 282.4 Where the CCP's own capital forms part of the default waterfall and potentially covers multiple clearing services with separate segregated default funds, the CCP will have to allocate its capital contribution to each of the segregated funds in proportion to the respective product-specific exposure at default in line with BCBS 282.

4.1(a)(ii) should be identical to DFCM as defined in BCBS 282.

Where commitments in section 4.1(b) are unlimited, state that these are unlimited. Commitments that are reserved to replenish the CCP's own capital or equity should not be included here, i.e. 4.1(b)(ii) and 4.1(b)(iii) seek disclosure of commitments to replenish the CCP's default fund, not the CCP's own capital or equity. Rules-based agreements to accept variation margin or other gains-based haircuts should not be disclosed as commitments, but CCPs should disclose details of such arrangements in line with the guidance on recovery planning (see CPMI-IOSCO *Recovery of financial market infrastructures*, October 2014).

Item 4.2: For a definition of KCCP, see BCBS 282. KCCP may be reported more frequently than quarterly if a CCP is required, under relevant law, to report it to supervisors of clearing members more frequently than quarterly.

Item 4.3: Disclosures should be based on the form in which default resources are held, not the form in which they were paid to the CCP. This item requests disclosures 'as at quarter end'. If a CCP does not consider the composition of collateral at quarter end to be representative, it is encouraged to provide explanatory notes outlining why this is the case, and to provide additional metrics such as quarterly averages, or maximums, minimums, and interquartile ranges. CCPs are also encouraged to disclose any limits on the amount of collateral of a particular type that the CCP will accept if this will assist in enabling a clear understanding of risks. For CCPs which do not specifically record whether asset holdings correspond to default fund contributions (whether provide dby CCP participants or from the CCP's own funds) or to margin provided by participants, the CCP should provide an explanatory note to this effect, and explain its methodology for describing the form in which default fund contributions are held (for example by assuming the proportion of each asset accounted for by default fund is pro-rata to the proportion of total funding that comes from default fund contributions.

Item 4.4: This item is where the results of a CCP's stress-testing of its financial resources are expected to be disclosed. CCPs should specify in their supporting comments to the matrix whether they are subject to a "Cover 1" or "Cover 2" requirement in relation to their total pre-funded default resources, but should report both results so that both Cover 1 and Cover 2 metrics can be compared with actual default resources. These disclosures create no new regulatory obligation for CCPs subject to a Cover 1 requirement to also satisfy a Cover 2 requirement. The disclosures instead aim to support transparency between the CCP and its participants on how safety and efficiency considerations have been balanced in response to different stress scenarios and the decisions that have been made with regard to default fund coverage. Where a CCP is only required to meet a Cover 1 standard, providing disclosure also on its estimated cover 2 requirement may facilitate additional comparisons across CCPs. Nevertheless, because of certain factors, including the size of the market the CCP serves, the CCP's share of that market, and whether a small number of participants account for a disproportionate amount of the CCP's clearing activity, comparison between cover 1 and cover 2 metrics alone

will still give an incomplete comparison of relative default fund coverage. Accordingly, CCPs should provide a comparison with default resources – as in item 4.3, market share data – in accordance with part 23 of the matrix, and other clarifying remarks, as appropriate, alongside their disclosure related to Cover 1 and Cover 2 metrics to further help the reader understand the default fund coverage.

In order to aid clearing members' modelling of their exposures to the CCP, the CCP should consider disclosing further information on its default fund stress-testing methodology (e.g. underlying model parameters and assumptions) insofar as the CCP, in discussion with its participants and regulators, agrees is appropriate without providing confidential information about individual participant positions.

Principle 5: Collateral

Item 5.1: CCPs are encouraged to explain where concentration limits or charges are also applied in addition to normal haircuts. Recognising that the CCP is requested to disclose changes to haircut values as they are applied, where CCPs already publish information on haircuts elsewhere on their public website, a link to the relevant pages will satisfy the disclosure expectation.

Item 5.3: CCPs should consider adding explanatory notes if this would help to understand reasons why the fall in value of assets exceeded haircuts.

Principle 6: Margin

Separate disclosures should be made for each clearing service in respect of items 6.1, 6.2, and 6.5, and each margin model used in that clearing service in respect of 6.3 and 6.4. Disclosures should be on the basis of the form in which the margin is held by the CCP rather than the form in which it was provided by the participants (if different).

Item 6.1: In this item, CCPs should report initial margin *required* – at least at the level of each clearing service. CPMI and IOSCO acknowledge that practices for calculating initial margin requirements vary across CCPs, and propose that CCPs include all types of margin including 'base-line' initial margin; 'add-ons'; and 'retained MTM/VM' (where relevant). Items included under 'add-ons' should reflect any additions to margin required from base-line initial margin and routine scheduled collections – e.g. margin requested to cover specific risks (including, but not limited to liquidity risk, concentration risk, correlation risk, wrong-way risk) where these risks are not covered in the base-line calculation or margin requested on a 'non-routine' basis (e.g. ad-hoc intraday calls). Where add-ons to baseline initial margin are significant and variable, CCPs are encouraged to provide an explanatory note to this effect. CCPs are also encouraged to provide an explanatory note on the expiration period of products they clear where this would help to facilitate interpretation of the margin data, e.g. because margin is returned on or following particular contract expiration dates.

Item 6.2: Disclosures under this item should reflect the total value of initial margin actually **posted** by direct and indirect members and held by the CCP (as opposed to item 6.1, which asks for the total value of initial margin **required**). This should include initial margin provided through a security interest as well as through title transfer. For CCPs which do not specifically record whether asset holdings correspond to margin or default fund contributions fund (whether provided by CCP participants or from the CCP's own funds), the CCP should provide an explanatory note to this effect, and explain its methodology for describing the form in which margin is held (for example by assuming the proportion of each asset accounted for by margin is pro-rata to the proportion of total funding from margin contributions).

Items 6.1 and 6.2: If a CCP does not consider disclosures at quarter end to be representative, it is encouraged to provide explanatory notes outlining why this is the case, and to provide additional metrics such as quarterly averages, or maximums, minimums, and interquartile ranges.

Items 6.3 and 6.4: CPMI and IOSCO recognise that models and approaches to margining may vary across CCPs. In order to help participants understand how they might be affected by margin calls, and/or where the items listed are not specifically relevant for a CCP, other key assumptions and parameters should be disclosed and the items listed should be used as a guide to the types of disclosures and level of details that is expected regarding initial margin assumptions and parameters.

Item 6.5: At a minimum, CCPs are expected to disclose the achieved margin coverage ratio for each clearing service and margin model and the value of any uncovered exposures.

Item 6.6: This disclosure is seeking information on the potential liquidity impact of changes in marked to- market values. It is not seeking to provide information on changes in the level of initial margin that may be related to changes in the volatility of prices. CCPs are expected to disclose the total of variation margin called from participants each day (including for options CCPs, where variation margin is called but not paid out).

Principle 7: Liquidity Risk

'Relevant currencies' refers to currencies in which the CCP is obliged to make pay-outs. If the CCP considers disclosures for 7.1 and 7.2 "as at quarter end" to be unrepresentative, it is encouraged to provide explanatory notes outlining why this is the case, and to provide additional metrics such as quarterly averages, or maximums, minimums, and interquartile ranges.

Items 7.1 and 7.2: CCPs should refer to paragraphs 3.7.10 and 3.7.11 of the PFMI for a definition of 'qualifying liquid resources' and 'supplementary liquidity risk resources'. CCPs are not asked to disclose the names of providers of liquidity resources or investment counterparties. CCPs should not double count assets: for example, assets should not be listed as qualifying under 7.1(e) to the extent that they are required to offer to liquidity providers under 7.1(c). CCPs should add explanatory notes to describe how the CCP decides which payment obligations to prioritize if a schedule does not exist or if otherwise this would help to understand the CCP's procedures.

Item 7.3: This item requests high-level disclosure of the results of a CCP's stress-testing of its liquid resources, both in aggregate and by currency.

Principle 12: Exchange-of-value settlement systems

Items 12.1 and 12.2: The requested percentages refer only to exchange-of-value settlements to which the CCP is a counterparty, and not, for example, to settlement of variation margin payment obligations, or collection and return of initial margin. Gross and net settlement models may qualify as DvP, PvP or DvD, providing that the final settlement of one leg of the exchange occurs if and only if the final settlement of the other leg also occurs.

Principle 13: Default rules and procedures

Item 13.1: CCPs should disclose quantitative information related to defaults as soon as is practicable, subject to constraints on disclosure such as ongoing legal cases.

Principle 14: Segregation and portability

Item 14.1: Disclosures under item 14.1 give quantitative data on the degree of segregation of client assets. Although some CCPs may be unable to disclose particular items (e.g. CCPs may not know the number of clients covered by omnibus accounts), CCPs should complete this item with as much information as is available. For clearing services where fewer than five clients have individually segregated accounts, the CCP should not disclose information on individually segregated accounts.

Principle 15: General business risk

A CCP that discloses these items in a publicly available annual report would meet this standard, but should also include the data in the quantitative disclosure report so that it is readily available in a single place. This information may be disclosed at the level of the legal entity for which published accounts are prepared, even if clearing services are only one part of the entity's activities. The CCP should note the legal entity or activity to which the disclosure relates. The disclosure may be made at the same time as the annual accounts are released.

Item 15.1: The PFMI states that a CCP should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. Under this item a CCP should disclose the amount of liquid net assets funded by equity which can absorb general business losses. This should, at a minimum, equal at least six months of current operating expenses in accordance with Principle 15. The CCP should not include in its disclosure for 15.1(a) such amount of its own capital as must be allocated or held for other purposes, such as "skin in the game" in the default waterfall, and is not therefore available to cover business risks.

Principle 16: Custody and investment risks

Items 16.1 to 16.3: These items request disclosures 'as at quarter end'. If a CCP does not consider the composition of its investment portfolio at quarter end to be representative, it is encouraged to provide explanatory notes outlining why this is the case, and to provide additional metrics such as quarterly averages, or maximums, minimums, and interquartile ranges. This disclosure looks at the reinvestment of cash received from participants, and not at how the CCP's own funds are held. If, however, participant cash is co-mingled with the CCP's own funds in the investment portfolio, the CCP should clarify how this is reflected in the data published to satisfy this disclosure, for example by specifying the proportion of the investment portfolio that is funded from the CCP's own funds.

Principle 17: Operational risk

Items 17.1, 17.2, 17.3 and 17.4: Core systems used in clearing are those that enable the acceptance and novation of trades, and enable the calculation of margin and settlement obligations. An incident that results in an interruption to the CCP's ability to perform its own functions in relation to trade acceptance and novation, or calculation of margin and settlement obligations is considered a loss of availability. An incident that compromises the CCP's ability to correctly perform the aforementioned functions is also considered a loss of availability, even if there is no actual outage. Successful failover to a back-up site without interruption to services would not count as a loss of availability. CCPs should make clear to which system or systems performance targets apply.

Principle 18: Access and participation

Item 18.1: It is assumed for the purposes of this disclosure that participants would be the legal entities with which the CCP has a counterparty relationship as a clearing member – CCPs should specify if they are using some other basis to define number of participants. Disclosures in this section would not therefore extend to clients. CCPs should report 'category of membership' as relevant to their business. Where relevant, CCPs should differentiate between clearing members that clear their own trades through a CCP and also offer access to the CCP to their clients (often referred to as 'general clearing members') and clearing members that only clear their own trades (often referred to as 'direct clearing members').

Item 18.2: Percentage of net open positions should be the percentage of gross notional for derivatives or the total cleared value for securities transactions or similar.

Items 18.2 to 18.4: For clearing services with fewer than ten members, this report does not make a disclosure recommendation.

Principle 19: Tiered participation arrangements

Item 19.1: For clearing services with fewer than ten members, this report does not make a disclosure recommendation.

Principle 20: FMI links

Items 20.1 to 20.5: These disclosures refer to arrangements in which trades clear over an interoperable link between CCPs, because clearing members are from different CCPs. CCPs should identify each link and cross-margining arrangement in their supporting comments so that quantitative disclosures can be tied to a specific link.

Items 20.2, 20.3, 20.5, 20.6 and 20.7(b): These items request disclosures 'as at quarter end'. If a CCP does not consider disclosures at quarter end to be representative, it is encouraged to provide explanatory notes outlining why this is the case, and to provide additional metrics such as quarterly averages, or maximums, minimums, and interquartile ranges.

Principle 23: Disclosure of rules, key procedures, and market data

Item 23.1 and 23.2: This item is intended to capture the daily *flow* of clearing activity, while item 23.2 is intended to capture the stock of novated trades that have not yet been settled.

Item 23.3: This information is to be disclosed to facilitate an understanding of which markets might be affected by a CCP being unable to clear. This information should only be provided where the relevant execution facility is content for the CCP to disclose.

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