Report Description

Latest updates are highlighted in orange

MTM and Margin Requirement Report

Report ID : RMAMR01

Report Name : MTM and Margin Requirement Report

Purpose : This report shows the MTM and margin requirement together with the margin component details for Hong Kong market only. The MTM and Margin requirement is calculated in HKD in relation to the marginable positions carried in the corresponding Marginable Position Report (RMAMP01). For margin calculation details, please refer to the Initial Margin Calculation Guide. A summary version of this report, RMAMR03, is also available.

For General Clearing Participant (GCP), the projected MTM and initial margin of its house account (H1) and each of its underlying Non-Clearing Participant (NCP) (nnnnn+) will be shown in end of day report. Please see Notes for GCPs for the pro-rata mechanism of "Add-ons" among GCP's house account and its NCPs. GCP can also refer to the reports generated after intra-day (or holiday) margin process, i.e. 11:30 a.m. (or 2:30 p.m.) for the projected MTM and initial margin of each of its underlying NCPs.

Time Available : This report will be available 4 to 5 times on each business day

1) at around 11:30 a.m., after the intra-day margin calculation process at around 11:00 a.m.
2) at around 2:30 p.m., after the holiday margin calculation process at around 2:00 p.m., if applicable
3) at around 3:30 p.m., after the margin estimation process at around 3:00 p.m.
4) at around 5:15 p.m., after the margin estimation process at around 4:45 p.m.
5) at around 9:00 p.m., after the end of day margin calculation process at around 8:30 p.m.

***** ***During Familiarisation Programme, only reports generated for 4) margin estimation and 5) end of day margin will be available via RAP at around 7:15 p.m. and 9:00 p.m. respectively*** *****

Frequency : 4 to 5 times daily

Report Data File Layout

Two zip files, i.e. a control file and a data file, will be generated for RMAMR01 and available in RAP for retrieval. After unzip, the files are in CSV format with comma (,) as separator. Alphanumeric values are not enclosed by double quotation mark (") unless they contain comma (,), the separator.

(A) Control file:

File Name : RMAMR01_<CCASS Part_ID>_yyyymmddhhmmss.CNTL.ZIP (compressed format)

Content : Two control records

Field Description:

#	Data item	Data size	Remarks
	Control Record 1		
(R1)	Key	X(2)	00 for Header record
(R2)	File Date	9(8)	File generation date formatted as "YYYYMMDD"
(R3)	Business Date	9(8)	Date of the margin calculation formatted as "YYYYMMDD"
(R4)	Report ID	X(7)	RMAMR01
(R5)	File Sequence Number	9(8)	HKEX internal file sequence number formatted as 'nnnnnnnn'. e.g. 00000004. For HKEX internal use only
	Control Record 2		
(R6)	Key	X(2)	09 for Trailer record
(R7)	Record Count	9(15)	Number of records in the data file, including header, formatted as 'nnnnnnnnnnnnnnn' e.g. 000000000000201 is 201 records

(B) Data File:

File Name : RMAMR01_<CCASS Part_ID>_yyyymmddhhmmss.CSV.ZIP (compressed format)

Content : Contain at least 2 records. The first record is the header record which provides the field names in the data file. The rest of the records provide details on the MTM and margin information for each of the participant account. For participant/account with no MTM and margin requirement, a dummy record with "0" values will be displayed.

Field Description:

#	Data item	Data size	Remarks
(R1)	Batch	9(19)	The batch ID of the margin calculation, for reference to the corresponding MTM and Margin Requirement Report (Summary Version) (RMAMR03) and Marginable Position Report (RMAMP01)
(R2)	IDM	9(1)	ID to identify when the report is generated "2" – end of day margin "3" – intraday, holiday and estimated margin
(R3)	Create Time	X(17)	File generation date and time formatted as "YYYYMMDD HH:MM:SS"
(R4)	Business Date	9(8)	Date of margin calculation formatted as "YYYYMMDD"
(R5)	Country	9(2)	The two-digit ISO 3166-1 country code for countries and their subdivisions HK – Hong Kong
(R6)	Product Area	X(2)	HK – Hong Kong Blank if no marginable position
(R7)	Market	X(30)	HKMK – Hong Kong Market Blank if no marginable position
(R8)	Market ID	9(3)	201 – HKMK Blank if no marginable position
(R9)	Exchange	X(2)	HK – Hong Kong
(R10)	Participant ID	X(9)	Participant ID

#	Data item	Data size	Remarks
(R11)	Account	X(10)	Margin Account of the Participant MA1 Main Account in which the MTM and margin requirement are captured for collateralization calculation in CCASS *Applicable to GCP, projected for information only:* H1 House Account with GCP's own MTM and margin result, only available in end of day report nnnnn+ NCP Account (e.g. 01234+) with each NCP's MTM and margin result, where "nnnnn" is the Firm ID of the NCP Blank if no marginable position
(R12)	Participant Name	X(80)	Name of the Participant
(R13)	Currency	X(3)	HKD Blank if no marginable position
(R14)	Portfolio Margin before Floor[1]	9(20)	Portfolio Margin, before applying the portfolio margin floor (R15)
(R15)	Portfolio Margin Floor[1]	9(20)	Portfolio margin floor calculated base on: (i) Portfolio margin floor base; and (ii) Portfolio margin floor rate
(R16)	Portfolio Margin[1]	9(20)	Portfolio Margin, after applying the portfolio margin floor, same as (R15) in RMAMR03: i.e. Max[(R14), (R15)]
(R17)	Flat Rate Margin before Multiplier[2]	9(20)	Flat Rate Margin before applying Flat Rate Margin Multiplier (R18)
(R18)	Flat Rate Margin Multiplier	9(10)v9(5)	Flat Rate Margin Multiplier
(R19)	Flat Rate Margin[2]	9(20)	Flat rate Margin after applying Flat Rate Margin Multiplier (R18), same as (R16) in RMAMR03

Please refer to Initial Margin Calculation Guide for the calculation process of various margins:
[1] Section 3.2.4.1 for Portfolio Margin
[2] Section 3.2.4.2 for Flat Rate Margin

#	**Data item**	**Data size**	**Remarks**
(R20)	Corporate Action Position Margin[3]	9(20)	Risk component related to potential risk exposures arising from Corporate Action entitlements (e.g.. rights/open offer; distribution in specie and dividend), same as (R17) in RMAMR03
(R21)	Initial Margin	9(20)	Sum of various margins: Portfolio Margin (R16) + Flat Rate Margin (R19) + Corporate Action Position Margin (R20)
(R22)	Liquidation Risk Add-on[4]	9(20)	Risk component related to the liquidity risk of concentrated positions Refer to Notes for GCPs for the pro-rata mechanism among GCP and its NCPs
(R23)	Structured Product Add-on[5]	9(20)	Risk component to handle the huge percentages loss resulting from downward price movement approaching the minimum security prices for long SP positions Refer to Notes for GCPs for the pro-rata mechanism among GCP and its NCPs
(R24)	Holiday Add-on[6]	9(20)	Reserved for future use, market risk component related to additional risk during holiday period Always “0” during familiarisation period
(R25)	Rounded Aggregated Market-risk-component Margin	9(20)	Sum of the Initial Margin (R21), Liquidation Risk Add-on (R22), Structured Product Add-on (R23), and *[Holiday Add-on (R24) reserve for future use]* Margin will be round up to the nearest HK$10,000
(R26)	Favorable MTM[7]	9(20)	Calculated profit from MTM calculation Otherwise shown as “0” Mutually exclusive to (R30)
(R27)	Net Margin	9(20)	The difference between the value of Rounded Aggregated Market-risk-component Margin and Favorable MTM: i.e. Max((R25) – (R26),0)

Please refer to Initial Margin Calculation Guide for the calculation process of various margins, MTM & add-ons:
[3] Section 3.2.4.5 for Corporate Action Position Margin
[4] Section 3.2.4.3 for Liquidation Risk Add-on
[5] Section 3.2.4.4 for Structured Product Add-on
[6] Section 3.2.4.6 for Holiday Add-on
[7] Section 4.6 for cross-currency netting on Favorable MTM

#	Data item	Data size	Remarks
(R28)	Margin Credit Utilized	9(20)	Margin credit utilized, only applicable to Main Account (MA1)
(R29)	Net Margin after Credit	9(20)	Net Margin after utilizing the Margin Credit: i.e. (R27) – (R28)
(R30)	MTM Requirement[8]	9(20)	Calculated loss from MTM calculation Otherwise shown as "0" Mutually exclusive to (R26)
(R31)	Position Limit Add-on[9]	9(20)	Risk component related to settlement counterparty risk arising from excessive CNS exposure against CP's apportioned liquid capital *Applicable to GCP for information only:* For H1 and NCP (nnnnn+) accounts, always show as "0"
(R32)	Credit Risk Add-on[10]	9(20)	Risk component related to individual CP's credit risk imposed by HKSCC, if applicable Always "0" during familiarisation period
(R33)	Ad-hoc Add-on[11]	9(20)	Ad hoc risk component related to individual CP imposed by HKSCC, if applicable

R(34) only applicable to CP who (1) is not an SEOCH Participant; or (2) CP as an SEOCH Participant did ***NOT*** *opt to pay its additional Marks and Margin Requirement due to EOT through SEOCH; and for collateralisation calculation in CCASS*

#	Data item	Data size	Remarks
(R34)	Total MTM and Margin Requirement	9(20)	Total MTM and Margin Requirement i.e. (R29) + (R30) + (R31) + (R32) + (R33) For MA1, the total MTM and margin requirement, incorporate add-on margins, if any For H1 and NCP accounts, a projected requirement before applying add-ons. Please refer to Notes for GCPs for add-ons details

Please refer to Initial Margin Calculation Guide for the calculation process of MTM and various add-ons:
8 Section 4.6 for cross-currency netting on Favorable MTM
9 Section 3.2.6.2 for Position Limit Add-on
10 Section 3.2.6.3 for Credit Risk Add-on
11 Section 3.2.6.4 for Ad-hoc Add-on

#	**Data item**	**Data size**	**Remarks**

R(35) & R(36) only applicable to CP who opt to pay its additional Marks and Margin Requirement due to EOT through SEOCH, in its capacity of corresponding SEOCH Participant; and will be for collateralisation calculation in CCASS

(R35)	Total EOT MTM and Margin Requirement to be collected through SEOCH	9(20)	Total EOT MTM and Margin Requirement to be collected through SEOCH, applicable to MA1 only *During familiarisation period, please ignore this figure if shown under "H1" or "nnnnn+"*
(R36)	Total MTM and Margin Requirement to be collected through HKSCC	9(20)	Total MTM and Margin Requirement to be collected through HKSCC, applicable to MA1 only *During familiarisation period, please ignore this figure if shown under "H1" or "nnnnn+"*
(R37)	Default Fund Add-on	9(20)	Risk component to mitigate excessive risk exposures of individual CP on Default Fund, same as (R21) in RMAMR03 If any, will be collected separately from Total MTM and Margin Requirement For H1 and NCP (nnnnn+) accounts, always show as "0"

Notes for GCPs:

Below is an illustration of the end of day pro-rata mechanism for GCP's own portfolio (H1 - house account) and its NCPs' portfolios (nnnnn+ - NCP accounts):

For each of the add-ons for house and NCP accounts, add-ons will be estimated based on the add-ons calculated from MA1 account, to be applied on a pro-rata basis:

- Assuming a GCP has K accounts including GCP's house account, with K-1 NCPs, i.e. NCP(1, 2, …, K-1) accounts
  - NCP distribution portion for NCP(k) is Initial Margin (R21) of NCP(k) / sum of Initial Margin (R21) of K accounts
  - Add-ons values for NCP(i) account
    = Add-on values of GCP main account x NCP distribution portion for NCP(k) then round to the nearest integer
  - Add-ons values for GCP house account
    = Add-on values of GCP main account – Sum (Add-ons values of NCP(1,2, …, K-1) accounts)

- Below is a numeric example on prorating of Liquidation Risk Add-on (R22) to GCP's house and its NCP1 & NCP2 accounts:

  - Assuming the Firm ID of the NCPs are 99991 and 99992, the corresponding accounts with pro-rata add-ons will be as follows:

Account	Initial Margin (R21)	Liquidation Risk Add-on (R22)
MA1	230,000	1,000
99991+	60,000	250 *[per 2a below]*
99992+	90,000	375 *[per 2b below]*
H1	90,000	375 *[per 3a below]*

1. Calculate the distribution portion for NCPs
   a. Distribution portion for 99991+ = 60,000 / (60,000 + 90,000 + 90,000) = 0.25
   b. Distribution portion for 99992+ = 90,000 / (60,000 + 90,000 + 90,000) = 0.375
2. Pro-rata for NCPs:
   a. (R22) for 99991+ = 1,000 * 0.25 = 250
   b. (R22) for 99992+ = 1,000 * 0.375 = 375
3. Pro-rata for GCP's house:
   a. (R22) for H1 = 1,000 – Sum(250, 375) = 375

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2. Nothing in this document constitutes an offer, solicitation, invitation or recommendation to buy or sell any securities, futures contracts or other products or to provide any investment advice or service of any kind. This document is not directed at, and is not intended for distribution to or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to law or regulation or which would subject Hong Kong Exchanges and Clearing Limited, The Stock Exchange of Hong Kong Limited, Hong Kong Futures Exchange Limited, HKEx Information Services Limited (together, the "Entities", each an "Entity"), or any of their affiliates or any of the companies that they operate, to any registration requirement within such jurisdiction or country. Nothing in this document may be regarded as creating any obligation on the part of any of the Entities.

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4. It remains to be GCP's responsibility and absolute discretion to determine and collect the marks and margin requirements for NCPs.

Sample Control and Data Files

(A) Sample files for DCP:

Control File for Data File: RMAMR01_B00001_20201217205602.CNTL

RMAMR01_B00001_20201217205602.CNTL

```
00,20201217,20201217,RMAMR01,00000004
09,000000000000002
```

Data File: RMAMR01_B00001_20201217205602.CSV

RMAMR01_B00001_20201217205602.CSV

```
Batch,IDM,Create Time,Business Date,Country,Product Area,Market,Market ID,Exchange,Participant ID,Account,Participant Name,Currency,Portfolio Margin before Floor,Portfolio Mar
99,2,20201217 20:56:02,20201217,HK,HK,HKMK,201,HK,B00001,MA1,B00001 PARTICIPANT FULL NAME,HKD,4422681,1707452,4422681,5209609,1,5209609,0,9632290,6060,9280,0,9650000,1320223,8
```

- Excel view:

Batch	IDM	Create Time	Business Date	Country	Product Area	Market	Market ID	Exchange	Participant ID	Account	Participant Name	Currency	Portfolio Margin before Floor	Portfolio Margin Floor	Portfolio Margin	Flat Rate Margin before Multiplier	Flat Rate Margin Multiplier	Flat Rate Margin
99	2	20201217 20:56:02	20201217	HK	HK	HKMK	201	HK	B00001	MA1	B00001 PARTICIPANT FULL NAME	HKD	4422681	1707452	4422681	5209609	1	5209609

Corporate Action Position Margin	Initial Margin	Liquidation Risk Add-on	Structured Product Add-on	Holiday Add-on	Rounded Aggregated Market-risk-component Margin	Favorable MTM	Net Margin	Margin Credit Utilized	Net Margin After Credit	MTM Requirement	Position Limit Add-on	Credit Risk Add-on	Ad-hoc Add-on	Total MTM and Margin Requirement	Total EOT MTM and Margin Requirement to be collected through SEOCH	Total MTM and Margin Requirement to be collected through HKSCC	Default Fund Add-on
0	9632290	6060	9280	0	9650000	1320223	8329777	5000000	3329777	0	0	0	0	3329777	0	3329777	0

(B) Sample files for GCP:

Control File for Data File: RMAMR01_B00002_20201217205602.CNTL

RMAMR01_B00002_20201217205602.CNTL

```
00,20201217,20201217,RMAMR01,00000004
09,000000000000008
```

Data File: RMAMR01_B00002_20201217205602.CSV

RMAMR01_B00002_20201217205602.CSV

```
Batch,IDM,Create Time,Business Date,Country,Product Area,Market,Market ID,Exchange,Participant ID,Account,Participant Name,Currency,Portfolio Margin before Floor,Portfolio Mar
99,2,20201217 20:56:02,20201217,HK,,,,HK,B00002,99991+,B00002 PARTICIPANT FULL NAME,,0,0,0,0,1,0,0,0,0,0,0,0,0,0,,0,0,0,0,0,0,0,0,0
99,2,20201217 20:56:02,20201217,HK,HK,HKMK,201,HK,B00002,99992+,B00002 PARTICIPANT FULL NAME,HKD,26819222,19697897,26819222,14343829,1,14343829,0,41163051,1871878,7140,0,43050
99,2,20201217 20:56:02,20201217,HK,,,,HK,B00002,99993+,B00002 PARTICIPANT FULL NAME,,0,0,0,0,1,0,0,0,0,0,0,0,0,0,,0,0,0,0,0,0,0,0,0
99,2,20201217 20:56:02,20201217,HK,,,,HK,B00002,99994+,B00002 PARTICIPANT FULL NAME,,0,0,0,0,1,0,0,0,0,0,0,0,0,0,,0,0,0,0,0,0,0,0,0
99,2,20201217 20:56:02,20201217,HK,HK,HKMK,201,HK,B00002,99995+,B00002 PARTICIPANT FULL NAME,HKD,14878379,5666665,14878379,4882054,1,4882054,0,19760433,898600,3428,0,20670000,
99,2,20201217 20:56:02,20201217,HK,HK,HKMK,201,HK,B00002,H1,B00002 PARTICIPANT FULL NAME,HKD,156347217,123714463,156347217,138568213,1,138568213,0,294915430,13411196,51157,0,3
99,2,20201217 20:56:02,20201217,HK,HK,HKMK,201,HK,B00002,MA1,B00002 PARTICIPANT FULL NAME,HKD,169946166,129505723,169946166,149569597,1,149569597,0,319515763,16181674,61725,0,
```

- Excel view:

Batch	IDM	Create Time	Business Date	Country	Product Area	Market	Market ID	Exchange	Participant ID	Account	Participant Name	Currency	Portfolio Margin before Floor	Portfolio Margin Floor	Portfolio Margin	Flat Rate Margin before Multiplier	Flat Rate Margin Multiplier	Flat Rate Margin
99	2	20201217 20:56:02	20201217	HK				HK	B00002	99991+	B00002 PARTICIPANT FULL NAME		0	0	0	0	1	0
99	2	20201217 20:56:02	20201217	HK	HK	HKMK	201	HK	B00002	99992+	B00002 PARTICIPANT FULL NAME	HKD	26819222	19697897	26819222	14343829	1	14343829
99	2	20201217 20:56:02	20201217	HK				HK	B00002	99993+	B00002 PARTICIPANT FULL NAME		0	0	0	0	1	0
99	2	20201217 20:56:02	20201217	HK				HK	B00002	99994+	B00002 PARTICIPANT FULL NAME		0	0	0	0	1	0
99	2	20201217 20:56:02	20201217	HK	HK	HKMK	201	HK	B00002	99995+	B00002 PARTICIPANT FULL NAME	HKD	14878379	5666665	14878379	4882054	1	4882054
99	2	20201217 20:56:02	20201217	HK	HK	HKMK	201	HK	B00002	H1	B00002 PARTICIPANT FULL NAME	HKD	156347217	123714463	156347217	138568213	1	138568213
99	2	20201217 20:56:02	20201217	HK	HK	HKMK	201	HK	B00002	MA1	B00002 PARTICIPANT FULL NAME	HKD	169946166	129505723	169946166	149569597	1	149569597

Corporate Action Position Margin	Initial Margin	Liquidation Risk Add-on	Structured Product Add-on	Holiday Add-on	Rounded Aggregated Market-risk-component Margin	Favorable MTM	Net Margin	Margin Credit Utilized	Net Margin After Credit	MTM Requirement	Position Limit Add-on	Credit Risk Add-on	Ad-hoc Add-on	Total MTM and Margin Requirement	Total EOT MTM and Margin Requirement to be collected through SEOCH	Total MTM and Margin Requirement to be collected through HKSCC	Default Fund Add-on
0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
0	41163051	1871878	7140	0	43050000	0	43050000		43050000	4562202	0	0	0	45732202	45732202	0	0
0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
0	19760433	898600	3428	0	20670000	3594626	17075374		17075374	0	0	0	0	16175374	16175374	0	0
0	294915430	13411196	51157	0	308380000	0	3.08E+08		308380000	54232564	0	0	0	349152564	0	349152564	0
0	319515763	16181674	61725	0	335760000	0	3.36E+08	5000000	330760000	55200141	0	0	0	385960141	14480000	371480141	0