

Market Quality Program

Version: March 2023

1. Introduction

- The objective of the market quality program is to improve visible liquidity on Thalex.
- Orderbook contribution by participant is measured directly in frequent snapshots.
- Rewards are distributed out of a cash pool, independent of traded volume. Each snapshot accrues a cash reward.
- Participation in the program is fully open. Anyone adding liquidity is participating.

2. Rewards

The Reward Pool is set at \$100K / month, segmented as follows by product:

Segments	BTC	ETH
Perpetual	\$20,000	\$20,000
Future Rolls	\$5,000	\$5,000
Options	\$25,000	\$25,000

Aggregation is as follows:

- For each snapshot, market quality is scored per orderbook side.
- An instrument's score is the simple average of the bid and ask scores.
- A product segment's score is the simple average of instrument scores.
- This translates to a reward per snapshot, accrued per participant.
- Each month has ~250K snapshots with equal reward per snapshot.

3. Market Quality Scoring

3.1. Overview

- Each side of the orderbook is scored separately.
- We consider orders until a certain size depth ("Depth Cutoff", see 3.2).
- At a given price level, orders are scored proportionate to size. Price levels are discounted in function of distance to the best price ("Distance Discounting", see 3.3).
- The product of size and price scores gives a metric called "Top of Book Equivalent Score", ("TOBE" in short, see 3.4).
- The market quality score of an order is its Top of Book Equivalent Score relative to the total of orders considered ("Market Quality Score", see 3.5).
- Per snapshot, a participant's score is the sum of scores of the participant's orders. Daily reports on a participant's performance will be available on an opt-in basis.

3.2. Depth Cutoff

This defines how many contracts deep we look in an orderbook side for scoring. Depth Cutoff is defined per underlying and instrument, see 4.1.

Size at the level of cutoff is partially included, so that total size considered is equal to the Depth Cutoff. For example, the BTC Perpetual has a Depth Cutoff of 50 BTC. If cumulative size is 42 BTC at level P-1 and there is 12 BTC at level P, size at P will be included for 8 BTC. Orders at P will be included pro rata (2/3).

3.3. Distance Discounting

Price levels are expressed in Price Distance, i.e. the absolute difference with the best price. Price Distance is divided by a Typical Distance to normalize. ("Normalized Distance", "ND").

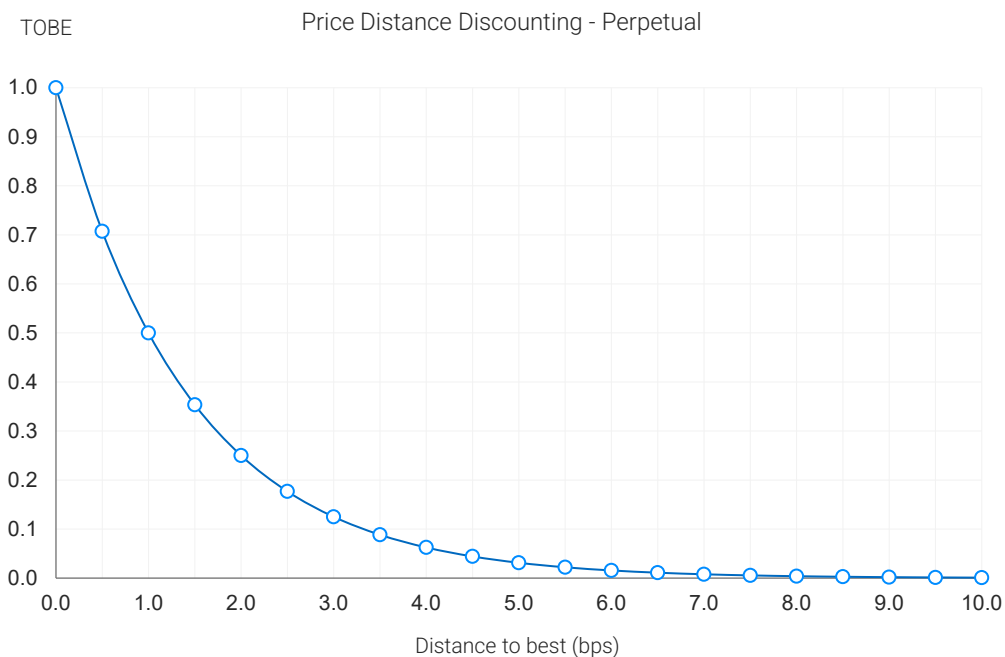
$$\text{Price Distance} = |P_{\text{best}} - P_{\text{order}}|$$

$$\text{Normalized Distance} = \frac{\text{Price Distance}}{\text{Typical Distance}}$$

Price scores are discounted per unit of Normalized Distance by an exponent. For instance, Perpetuals use 0.5 as the exponent and a Typical Distance of 1 bps x Index. Note that exponent and Typical Distance vary by instrument (see 4.1).

The Perpetual's discount curve looks as follows.

$$\text{Price Score} = 0.5^{\text{ND}}$$



3.4. Top of Book Equivalent Score

For each price level within the Depth Cutoff, the TOBE score is obtained by multiplying order size with the Price Score.

The calculation is illustrated by an example for a BTC Perpetual. Note the application of the Depth Cutoff (50 BTC) in the column of Considered size.

Ask	Price (USD)	Size (BTC)	Total (BTC)	Cons'd (BTC)	TOBE (Score)	MQ (%)
D	20004	38.5	87.4	1.1	0.3	0.9%
C	20002	34.3	48.9	34.3	17.2	53.6%
B	20000	4.0	14.6	4.0	4.0	12.5%
A	20000	10.6	10.6	10.6	10.6	33.1%

Bid	Price (USD)	Size (BTC)	Total (BTC)	Cons'd (BTC)	TOBE (Score)	MQ (%)
A	19995	32.2	32.2	32.2	32.2	71.9%
B	19994	49.0	81.2	17.8	12.6	28.1%
C	19993	50.0	131.2	-	-	-

For the ask, the total TOBE score is 32.0:

- Considered size is multiplied by the price score per level to obtain TOBE scores.
- Traders A and B have scores proportional to size at the best ask given no price discounting of the best level.
- The \$20002 level is 1 bps behind best (if the Index is at \$20000), which maps to one unit of normalized distance and a price score of 50%. Hence, TOBE is 0.5 x Size.

3.5. Market Quality Score

For a given orderbook side, the Market Quality Score ('MQS') for each order is its TOBE score relative to the sum of TOBE scores of all orders considered:

$$MQS_{order} = \frac{TOBE_{order}}{\sum TOBE}$$

A participant's MQS within an orderbook side is the total MQS of the participant's orders.

4. Appendix

4.1. Product-specific Parameters

"TTE": Time to expiry

"PD": Price Distance

Perpetual		
Depth Cutoff	BTC	50 BTC
	ETH	500 ETH
Price discounting	BTC & ETH	Price Score = 0.5^{ND} $ND = \frac{ P_{best} - P_{order} }{1 \text{ bps} \times \text{Index}}$
Eligible Instruments	BTC & ETH	All Perpetuals
Future Rolls		
Depth Cutoff	BTC	50 BTC
	ETH	500 ETH
Price discounting	BTC & ETH	Price Score = 0.1^{ND} $ND = \frac{ P_{best} - P_{order} }{N \text{ bps} \times \text{Index}}$
		N = 2 bps if TTE < 5 weeks 5 bps if TTE > 5 weeks
Eligible Instruments	BTC & ETH	Future Rolls with a Perpetual leg
Options		
Depth Cutoff	BTC	50 BTC if TTE < 5 weeks 25 BTC if TTE > 5 weeks
	ETH	500 ETH if TTE < 5 weeks 250 ETH if TTE > 5 weeks
Price discounting	BTC & ETH	Price Score = 0.1^{ND} $ND = \frac{ P_{best} - P_{order} }{N \text{ bps} \times \text{Index}}$
		N = 10 bps if $\Delta > 25$ & TTE < 5 weeks 20 bps if $\Delta > 25$ & TTE > 5 weeks 20 bps if $\Delta < 25$ & TTE < 5 weeks 30 bps if $\Delta < 25$ & TTE > 5 weeks
Eligible Instruments	BTC & ETH	Options with delta 5 up to and including the first ITM strike

Terms and Conditions: Market Quality Program

Version: March 2023.

These Terms and Conditions (the **"MQP Terms"**) apply to the market quality program (the **"MQP"**) offered by Thalex Digital Trading Platform Ltd, an International Business Company incorporated in the Republic of Seychelles, registered under company number 231189 and with its registered office at Suite 202, 2nd floor, Eden Plaza, Eden Island, PO Box 1352, Mahe, Republic of Seychelles (**"Thalex"**, **"we"**, **"us"** or **"our"**). Your participation in the MQP is governed by these MQP Terms. If you have any questions, please contact us by sending an email to support@thalex.com.

If you do not accept the terms of these MQP Terms, or any amendment to them, you will not be eligible to participate in the MQP and receive any rewards granted under it. Any amendments to these MQP Terms and/or the MQP will be published on thalex.com and, to the extent possible, notified to you via e-mail or other notification channels.

1. Introduction

- 1.1. Any capitalized terms not defined herein shall have the meaning given to them in the [Rulebook](#) and/or the [Terms of Use](#).
- 1.2. These MQP Terms should be read in conjunction with, and form part of, the Market Quality Program document, which sets out, among other things, the reward pool, reward size and market quality scoring.
- 1.3. In addition to these MQP Terms, you agree and acknowledge to be bound by and comply with the provisions laid down in the [Terms of Use](#) and [Rulebook](#) when using, and trading on, the Platform as well as when participating in the MQP. For the avoidance of doubt, should a conflict arise between these MQP Terms on the one hand and the [Rulebook](#) and/or the [Terms of Use](#) on the other hand, the provisions of the [Rulebook](#) respectively the [Terms of Use](#) shall prevail.

2. The Market Quality Program (MQP)

- 2.1. The MQP rewards anyone who makes a meaningful contribution to market quality of the Platform in Admitted Contracts relevant to the MQP. The objective of the MQP is to maximize visible liquidity on the Platform.
- 2.2. Performance will be measured for each snapshot and reported daily on an opt-in basis.
- 2.3. The MQP shall automatically terminate in any event by 31 December 2023, unless terminated earlier in accordance with Clause 2.5.
- 2.4. You agree and acknowledge that our calculations and decisions associated with the MQP, such as (but not limited to) the assessment of market quality scoring and the calculation of rewards, are

binding and final (except in the case of an obvious and manifest error) and that we may change the methodologies of such calculations at any time in so far as such change is not applied retroactively.

- 2.5. We may, in our sole discretion and at any point in time, terminate the MQP to ensure a fair and orderly market on the Platform, uphold the financial stability of the Platform, comply with Applicable Law or a request of a Regulatory Authority and/or for any other reason that we reasonably deem necessary.
- 2.6. We reserve the right to, in our sole discretion and at any time:
 - a. change the scope, size and/or eligibility criteria of the MQP;
 - b. adjust future budget allocations used in the MQP;
 - c. adjust any (variables, elements or other factors forming part of) calculations used to determine (the size of or eligibility to) rewards in the MQP;
 - d. restrict or remove functionalities and/or use of the MQP; and/or
 - e. make any other changes or improvements to the MQP,

without becoming liable to you and/or any other party, provided that (i) granted but not yet paid rewards shall be paid out by us notwithstanding the applicability of this Clause 2.6, and (ii) any change shall not apply retroactively unless otherwise required by Applicable Law or Regulatory Authority.

- 2.7. The continued participation in the MQP, after any amendment to these MQP Terms, constitutes your acceptance of these MQP Terms, as modified by such amendment.
- 2.8. The applicable methodology and terms of the MQP will be available on thalex.com.

3. Payment Terms

- 3.1. All rewards granted under the MQP on a continuous (per snapshot) basis and paid in USDT (or any other stablecoin as determined by Thalex in its sole discretion from time to time) on a quarterly basis.
- 3.2. We strive to make the reward payment(s) within 4 weeks following the end of the relevant quarter or date of termination of the MQP by crediting the applicable sum in stablecoin to your Account. The first payment shall take place in July 2023.
- 3.3. A de minimis threshold of USDT 1 shall apply for each reward payment, below which no reward payment shall be accrued and received.
- 3.4. We are under no obligation whatsoever to pay any reward(s) to anyone who does not strictly follow these MQP Terms, the [Rulebook](#) and/or the [Terms of Use](#), as amended, where applicable.
- 3.5. Reward payments do not include any Taxes. You are responsible for declaring and paying all Taxes associated with any activity you carry out through your Account, including your participation in and any rewards received under the MQP.

4. Miscellaneous

- 4.1. Severability - If any provision or part-provision of these MQP Terms is or becomes invalid, illegal or unenforceable, in whole or in part, it shall be deemed modified to the minimum extent necessary to make it valid, legal and enforceable and to give effect to the commercial intention of the Parties. If such modification is not possible, the relevant provision or part-provision shall be deemed deleted. Any modification to or deletion of a provision or part-provision under this Term 4.1 shall not affect the validity and enforceability of the rest of these MQP Terms. If any provision or part-provision of these MQP Terms is invalid, illegal or unenforceable, the Parties shall negotiate in good faith to amend such provision so that, as amended, it is legal, valid and enforceable, and, to the greatest extent possible, achieves the intended commercial result of the original provision.
- 4.2. Force Majeure - We shall not be required to perform any of our obligations under these MQP Terms, or any other agreement with you, or to compensate you for Losses caused by any delay or failure of performance, to the extent such delay or failure of performance is the result of a Force Majeure.
- 4.3. Governing Law - These MQP Terms and any non-contractual obligations arising out of, or in connection with them, are governed by, and are to be interpreted in accordance with, the laws of Gibraltar.
- 4.4. Jurisdiction - The courts of Gibraltar shall have exclusive jurisdiction to settle any dispute which may arise out of or in connection with these MQP Terms (including any non-contractual obligations arising out of or in connection with these MQP Terms). Nothing in this Term 4.4 will prevent us from bringing proceedings against you in any other jurisdiction.