



HONG KONG MONETARY AUTHORITY
香港金融管理局

Our Ref.: B1/15C

6 March 2020

The Chief Executive
All Authorized Institutions

Dear Sir / Madam,

Sound risk management practices for algorithmic trading

I am writing to share with you some sound practices to manage the risks associated with algorithmic trading (algo-trading), in which trade decisions or orders are made automatically according to predefined computer algorithms.

The Hong Kong Monetary Authority (HKMA) conducted in 2018 a survey to understand the extent and nature of authorized institutions' (AIs) algo-trading activities. The results indicated that around 40% of the surveyed AIs already undertook algo-trading, most commonly in executing trade orders and market-making for foreign exchange-related transactions. A majority of these AIs indicated that they would expand the scale of algo-trading. Some of the surveyed AIs which did not engage in algo-trading reported that they had plans to do so.

In light of the survey results, the HKMA conducted in 2019 a round of thematic on-site examinations focused on algo-trading. Seven AIs, mainly international banks using algorithms for making investment decisions, were covered in the thematic examinations. The objective of the examinations was to assess the adequacy and effectiveness of AIs' risk management practices relating to algo-trading activities, including governance and oversight, development and testing of algorithms, and risk monitoring and controls.

In the course of the examinations, the HKMA observed a number of sound practices adopted by the more advanced AIs. As the survey suggests that algo-trading may become more prevalent in the banking industry, the HKMA considers it useful to set out its supervisory expectations around algo-trading and share the sound practices observed during the thematic examinations with all AIs (see the **Annex** to this letter). AIs engaged in algo-trading activities are expected to give due consideration to these supervisory expectations and sound practices when developing their risk management framework, having regard to the nature, scale and complexity of their algo-trading activities.

Should you have any questions about this circular, please contact Gordon Wong on 2878-1272 or Argus Leung on 2878-1626.

Yours faithfully,

Raymond Chan
Executive Director (Banking Supervision)

Encl.