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CIRCULAR 162-17
November 14, 2017

REQUEST FOR COMMENTS

MODIFICATIONS TO THE CONTRACT SPECIFICATIONS FOR THE THREE-MONTH CANADIAN BANKERS' ACCEPTANCE FUTURES CONTRACT PERTAINING TO MINIMUM PRICE FLUCTUATION

AMENDMENTS TO ARTICLE 15506 OF THE RULES OF BOURSE DE MONTRÉAL INC.

The Rules and Policies Committee of Bourse de Montréal Inc. (the “**Bourse**”) has approved the amendments to article 15506 of Rule Fifteen of the Bourse regarding the modifications to the contract specifications for the three-month Canadian bankers’ acceptance futures contract pertaining to minimum price fluctuation.

Comments on the proposed amendments must be submitted on December 31, 2017 at the latest. Please submit your comments to:

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A copy of these comments must also be forwarded to the *Autorité des marchés financiers* (the “**Autorité**”) to:

M^e Anne-Marie Beaudoin
Corporate Secretary
Autorité des marchés financiers
800 Victoria Square, 22nd Floor
P.O. Box 246, Tour de la Bourse
Montréal (Québec) H4Z 1G3
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Please note that comments received by one of these recipients will be transferred to the other recipient and that the Bourse may publish a summary of such comments as part of the self-certification process concerning this file.

Appendices

You will find in the appendices an analysis as well as the text of the proposed amendments. The implementation date of the proposed amendments will be determined by the Bourse, in accordance with the self-certification process as established by the *Derivatives Act* (CQLR, chapter I-14.01).

Regulatory Amendment Process

The Bourse is authorized to carry on business as an exchange and is recognized as a self-regulatory organization ("SRO") by the Autorité. The Board of Directors of the Bourse has delegated to the Rules and Policies Committee of the Bourse its powers to approve and amend the Rules, the Policies and the Procedures, which are thereafter submitted to the Autorité in accordance with the self-certification process as determined by the *Derivatives Act* (CQLR, chapter I-14.01).



**MODIFICATIONS TO THE CONTRACT SPECIFICATIONS FOR THE
THREE-MONTH CANADIAN BANKERS' ACCEPTANCE FUTURES CONTRACT
PERTAINING TO MINIMUM PRICE FLUCTUATION**

AMENDMENTS TO ARTICLE 15506 OF THE RULES OF BOURSE DE MONTRÉAL INC.

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I. SUMMARY

Bourse de Montréal Inc. (the Bourse) hereby proposes to amend the minimum price fluctuation (tick size) on the contract specifications for the Three-Month Canadian Bankers' Acceptance Futures (BAX), such that the minimum price fluctuation for the fifth, sixth, seventh and eight quarterly BAX contract months ("the Reds") be reduced from 0.01 per \$100 nominal value (a full tick), to 0.005 per \$100 nominal value (a half tick).

II. ANALYSIS

a. Background

When the BAX contract was introduced in April of 1988, the minimum price fluctuation (tick size) for all contract months was established at 0.01 per \$100 nominal value (a full tick). In February of 2002, the Bourse reduced the minimum price fluctuation to 0.005 per \$100 nominal value (a half tick) for the three nearest listed contract months (the first quarterly BAX contract month and the two serial BAX contract months) as a greater level of granularity was in the best interest of the market.

In 2002, the reasons behind the reduction of the minimum price fluctuation were the following:

- The need to conform to the practice of the cash and over-the-counter market and other international short-term interest rate futures contracts; and the need to provide market users with the ability to price the BAX contracts with greater precision.
- The tick size of a futures contract is a key determinant to its success. The objective was to ensure that the tick size of the BAX contract not be so large that the contract would become less useful for institutional investors who prefer the flexibility to price these contracts with greater accuracy, nor that the tick size be so large that traders would find tick size movements and price risk too high.

In September 2014, at the request of market participants, the Bourse extended half tick to the second, third and fourth BAX quarterly futures contract months for the reasons cited above. The reduction of the minimum price fluctuation was a success based on the following results that were observed over the six month period following the implementation of half tick:

- Bid / Offer spread narrowed from 0.01 to 0.005 bps (for at least 95% of the time for the second, third and fourth BAX quarterlies)
- The number of resting orders in the order book decreased
- Resting orders in the order book turned faster with the ratio of resting orders to execute volume dropping from 1.35 to 0.37. A lower ratio indicates that orders in the order book are turning faster. That is, the orders placed rest for a shorter period in the order book before they are matched.

The Bourse contends that the reasons cited for the change in 2002 and 2014 still apply today for a reduction of the minimum tick size in the BAX Reds.

b. Description and Analysis of Impacts

Over the past several years, the Bourse has received repeated requests from end-user participants (such as pension funds, central banks, hedge funds, treasuries and dealers) to extend the minimum price fluctuation of a half tick to at least the ten nearest listed contract months, including serials. Domestic and international clients have echoed those sentiments.

The Bourse has conducted extensive consultations with market participants to gauge their interest in a half tick minimum price fluctuation. The participants' feedback centered around three principal benefits to the market that are summarized as follows.

Firstly, the feedback received focused primarily on an expected reduction in the cost of trading. Full ticks were deemed too costly to hedge given the current low volatility environment. It is unlikely that tighter spreads would decrease trading activity given that competing products have much tighter bid-ask spreads than the BAX. Furthermore, it is possible to get markets tighter than a basis point in all products up to ten years. The BAX, which should be the most liquid market, offers a spread two to three times wider than the offer in the dealer community. Participants also noted that the Ten-Year Government of Canada Bond Futures (CGB) contract has much lower friction costs associated with trading than the BAX, thereby reducing the incentive to participate in the BAX market. The bid/ask spread was also deemed out of pace with that available elsewhere. Participants always use the cheapest hedge which, at the moment, is not the BAX. Finally, it was stated that the cheapest hedging vehicle should not be an over the counter (OTC) product, and if that is so, the wrong cost model is being used.

Secondly, another benefit of a half tick minimum price fluctuation would be an increase in diversity amongst participants. It is expected that half ticks would bring in new participants, deflecting them from OTC markets. Multi-product and multi-currency strategy asset managers, who are active elsewhere, typically avoid the BAX due to the perceived high cost. Many of these asset managers trade other STIR futures rather than Canadian STIR futures, for cost reasons. Furthermore, participants stated that liquidity can be found elsewhere at a much lower cost and that the frequency of trading would increase with the introduction of half ticks.

Thirdly, half ticks would optimize the BAX in the context of the changing competitive landscape. Participants reported that the current model is inefficient for too many participants who turn to other alternatives, and that half ticks are necessary because the dynamics of the market have changed. They also stated that, given the low volatility environment in the front end, the bid-ask spread, the execution fees and the execution protocols, there is little incentive to use the BAX, while there is no significant downside to using a Swap Exchange Facility (SEF).

The Bourse believes that the proposed reduction in minimum price fluctuation will yield immediate results in the BAX Reds. Firstly, a smaller tick size will reduce slippage (the difference between the expected price of a trade and the executed price of the trade) therefore providing greater price precision for all market participants. For example, an end-user participant would like to buy 1,000 BAX contracts at 98.775. The market is quoted at 97.770/98.780. In order to get a fill, the end-user participant would have to pay 98.780 resulting in a loss of \$12,500 $((98.775-98.780) \times 1000 \text{ contracts} \times \$2,500)$. Secondly, the smaller tick size would attract additional domestic and international client flow to the BAX market. Thus hedgers will be encouraged to be more active in the market as the cost of hedging a position will be lower and speculators will have a larger pool of clients to trade against. Both hedgers and speculators are essential to the health of the BAX, and it is crucial to ensure that each group makes up a sustainable proportion of the overall market.

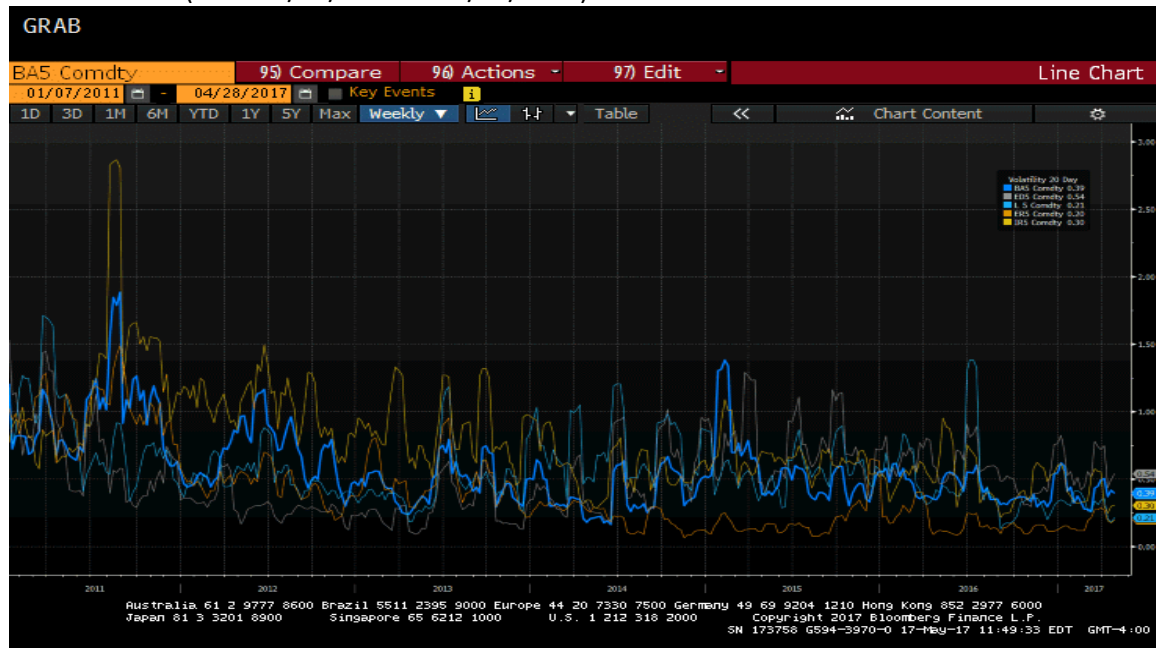
A healthy futures market needs a stable mix of client types. Over the past several years, overall growth in BAX trading volumes has been favourable, with growth coming from both liquidity providers and end-user participants. However, most of the growth has been concentrated in the first four BAX quarterly contracts (“BAX Whites”). In fact, BAX volume in the Reds has been stagnant since 2015, and trading volumes in the BAX Reds attributable to end-user participants have not grown as anticipated. While the market remains healthy, in the long-term, a market dominated by either liquidity providers or buy-side clients is problematic. This proposal to reduce the minimum price fluctuation in the “BAX Reds”, which has been requested by buy-side participants, is an efficient method of restoring the balance between these groups.

Extending the half tick minimum price fluctuation to the “BAX Reds” will reduce the profitability per trade for liquidity providers. However, this reduction in profit per trade will be offset by an increase in trading activity. Liquidity providers, in the BAX market, usually place bids and offers in the order book passively waiting for end-user participants to enter the market and instantaneously get filled. End-user participants, unwilling to pay a full tick for a fill, are simply placing their orders in the book and waiting for a fill to come along, or are looking for fills in competing markets. The result is an order book with a large number of resting orders. A half tick minimum price fluctuation would increase the likelihood of end-user participants lifting offers or hitting bids that liquidity providers have placed in the order book. Therefore, while profitability per trade will decrease, the number of profitable trades will increase.

Feedback from the Bourse’s market surveys indicates that there is a large pool of potential demand for the BAX from hedge funds who are not currently trading the “BAX Reds” due to the costly full tick minimum price fluctuation. Some hedge funds have suggested that a reduction in tick size would lead them to redirect some of their OTC volume to the BAX, perhaps even increasing their BAX trading volumes. This uncaptured buy-side volume would offer current BAX liquidity providers a plethora of new trading opportunities, and would drive new liquidity providers into the BAX market.

From an economic perspective, the Canadian short term interest rate (STIR) market has been enduring historically low interest rates and volatility for some time. The Bank of Canada’s neutral stance on monetary policy raises the possibility that there will be some movement in the bank rate, and thus volatility, at some point in the future.

Figure 1 – Volatility of the BAX contract compared to the volatility of four major international STIR contracts (from 01/01/2011 to 04/30/2017)



Source: Bloomberg, LP

While the Bank of Canada’s stance has shifted from neutral to hawkish, the market has been waiting for movement in the bank’s overnight rate target since July 2015. Over this time, the Bourse has observed that the minimum price fluctuation is too large for the “BAX Reds” contracts as well and that the timing for a reduction in the minimum price fluctuation is suitable.

The Bourse operates in an increasingly competitive environment. Forward rate agreements (FRA’s) in the OTC market and on alternative trading platforms offer smaller minimum price fluctuations than the BAX. However those products are not centrally cleared and do not have a transparent mechanism for price discovery.

The introduction of SEFs in the OTC market, which are also centrally cleared, has changed the competitive landscape somewhat; however the mechanism for price discovery with SEFs is not as robust as the BAX.

The pace at which developments are occurring has also caused competitive battles in the STIR space amongst international exchanges such as ICE and CME.

The Bourse contends that the BAX is as efficient and robust as any STIR contract in the world; however the full tick minimum price fluctuation has made it more expensive to trade than some OTC products due to slippage.

A healthy BAX contract is crucial to the success of the Canadian fixed income market and, in light of these recent competitive developments, the Bourse intends to ensure that the BAX remains the premier Canadian dollar-denominated STIR instrument.

The OTC market has responded to market demand by narrowing the bid-ask spreads. The Bourse would like to offer market participants the same reduced spreads, along with a clear and transparent mechanism for price discovery. The Bourse believes that this move would be beneficial to the Canadian derivatives market as a whole.

The BAX contract serves as a mechanism to transfer risk to those who wish to bear it. This mechanism only functions properly when submitted orders are actually executed.

While volatility is relatively low, the desire to transfer risk to other participants rises. The BAX boasts a very deep order book and, in 2016, total trading volume increased by 21% and open interest increased by 53%. On the other hand, the ratio of bids and offers to executed volume in the BAX front Reds contracts is higher compared to those of major international STIR contracts.

Data in the BAX Reds shows a higher ratio (almost double) of resting orders to executed volume compared to its peers.

Table 1 – Ratio of resting orders to executed orders of the BAX Reds compared to the average ratio of major international STIR futures contracts

BAX contract month	Ratio of bid-ask to executed volume
BAX Reds	0.498
Average ratio for major international STIR contracts ¹	0.268

Source: Innovation Centre, Bourse de Montréal Inc.

¹The five international STIR contracts are as follows:

CME Group. Eurodollar Futures Contract Specifications . [online] Available at: http://www.cmegroup.com/trading/interest-rates/stir/eurodollar_contract_specifications.html [Accessed 15 Sept. 2017]

Intercontinental Exchange Inc. Three-Month Sterling Futures [online] Available at:

<https://www.theice.com/products/37650330/Three-Month-Sterling-Short-Sterling-Future> [Accessed 15 Sept. 2017]

ASX Limited. 90-Day Bank Bill Futures [online] Available at: <http://www.asx.com.au/documents/products/90-Day-bank-bill-futures-factsheet.pdf> [Accessed 15 Sept. 2017]

Intercontinental Exchange Inc. Three-Month Euribor Futures [online] Available at:

<https://www.theice.com/products/38527986/Three-Month-Euribor-Futures/specs> [Accessed 15 Sept. 2017]

c. Comparative Analysis

Reducing the minimum price fluctuation to a half tick for the BAX Reds will harmonize the BAX with STIR markets around the world, such as the Eurodollar on CME, the Euribor on ICE and the Euroyen on TFX.

Table 2 – Minimum price fluctuation of the BAX contract compared to that of international STIR contracts

Futures contract	Exchange	Minimum price fluctuation
BAX	Bourse de Montréal	The six nearest listed contract months: 0.005 All other contract months: 0.01
EURODOLLAR	CME	The nearest listed contract month: 0.0025 All other contract months: 0.005 ²
EURIBOR	ICE	0.005 ³
EUROYEN	TFX	0.005 ⁴
SHORT STERLING	ICE	The first quarterly contract month: 0.005 All other contract months: 0.01 ⁵
BANK BILLS	SFE	0.01 ⁶

Source: Innovation Centre, Bourse de Montréal Inc.

Table 2 demonstrates that other major and peripheral international STIR contracts have a minimum price fluctuation similar to that proposed by the Bourse; most notably, the Eurodollar and Euribor, which are international benchmarks in the STIR space.

d. Proposed Amendments

See attached proposed amendments to rule 15506.

III. AMENDMENT PROCESS

The amendment process was initiated by the need to enhance the efficiency and competitiveness of the BAX contract and retain a competitive advantage over other markets.

² See note 1 for Eurodollar Futures Contract Specifications

³ See note 1 for Euribor Futures Contract Specifications.

⁴ Tokyo Financial Exchange Inc. Euroyen Futures Contract Specifications [online] Available at: <https://www.tfx.co.jp/en/wholesale/products/ey.html> [Accessed 15 Sept. 2017]

⁵ Intercontinental Exchange Inc. Short Sterling Futures Contract Specifications [online] Available at: <https://www.theice.com/products/37650330/Three-Month-Sterling-Short-Sterling-Future> [Accessed 15 Sept. 2017]

⁶ ASX/SFE. Bank Bills Futures Contract Specifications [online] Available at: <http://www.asx.com.au/documents/products/asx24-contract-specifications.pdf> [Accessed 15 Sept. 2017]

IV. IMPACTS ON TECHNOLOGICAL SYSTEMS

The proposed changes should have no impact on the technological systems of the Bourse, of the Bourse's approved participants or of any other market participants.

V. OBJECTIVES OF THE PROPOSED AMENDMENTS

The objective of the proposed amendments is to enhance the efficiency of the BAX contract by improving price precision, thereby attracting further domestic and international participation to the BAX market, while increasing the proportion of buy side activity on the BAX contract.

In doing this, the Bourse expects the ratio of resting orders to executed orders to decline and the daily volatility to minimum price fluctuation ratio to rise.

VI. PUBLIC INTEREST

Since the purpose of these amendments is to accommodate demands from market participants to reduce the minimum price fluctuation of the fifth, sixth, seventh and eighth quarterly BAX contract months, the Bourse considers that these amendments are in the public interest.

VII. EFFICIENCY

*"Market efficiency refers to the ability of market participants to transact business easily and at a price that reflects all available market information. Factors considered when determining if a market is efficient include liquidity, price discovery and transparency."*⁷

The Bourse is of the view that the present initiative will improve market efficiency as it will enhance the efficiency of the BAX contract by improving price precision, which will thereafter provide better liquidity and price transparency on the BAX market while allowing more participants to efficiently transact on such market.

VIII. PROCESS

The proposed amendment will be presented for approval to the Rules and Policies Committee of the Bourse, and will then be submitted to *the Autorité des marchés financiers* (AMF) for self-certification purposes. These modifications will also be transmitted to the Ontario Securities Commission (OSC) for information.

⁷IOSCO (2011). Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency. [online] Available at: <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD354.pdf> [Accessed 14 Jul. 2017]

IX. ATTACHED DOCUMENTS

Proposed amendments to article 15506.

**RULE FIFTEEN
FUTURES CONTRACTS SPECIFICATIONS**

[...]

CANADIAN BANKERS' ACCEPTANCE FUTURES

[...]

15506 Minimum Price Fluctuation
(22.04.88, 08.09.89, 15.10.02, 18.01.16, 00.00.00)

Unless otherwise determined by the Bourse, the minimum price fluctuation is as follow:

For the ~~six-ten~~ (10) nearest listed contract months including serials, the minimum price fluctuation is 0.005, representing \$12.50 per contract.

For all other contract months, the minimum price fluctuation is 0.01, representing \$25 per contract.

**RULE FIFTEEN
FUTURES CONTRACTS SPECIFICATIONS**

[...]

CANADIAN BANKERS' ACCEPTANCE FUTURES

[...]

15506 Minimum Price Fluctuation
(22.04.88, 08.09.89, 15.10.02, 18.01.16, 00.00.00)

Unless otherwise determined by the Bourse, the minimum price fluctuation is as follow:

For the ten (10) nearest listed contract months including serials, the minimum price fluctuation is 0.005, representing \$12.50 per contract.

For all other contract months, the minimum price fluctuation is 0.01, representing \$25 per contract.