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**CIRCULAR 037-14**

March 19, 2014

## REQUEST FOR COMMENTS

### MODIFICATIONS TO THE CONTRACT SPECIFICATIONS FOR THE THREE-MONTH CANADIAN BANKERS' ACCEPTANCE FUTURES CONTRACT

#### MINIMUM PRICE FLUCTUATION

The Rules and Policies Committee of Bourse de Montréal Inc. (the **Bourse**) has approved amendments to 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 second, third and fourth quarterly BAX contract months be reduced from 0.01 per \$100 nominal value (a full tick), to 0.005 per \$100 nominal value (a half tick).

Comments on the proposed amendments must be submitted within 30 days following the date of publication of this notice, at the latest on **April 21, 2014**. Please submit your comments to:

M<sup>c</sup> Pauline Ascoli  
Vice-President, Legal Affairs, Derivatives  
Bourse de Montréal Inc.  
Tour de la Bourse  
P.O. Box 61, 800 Victoria Square  
Montréal, Québec H4Z 1A9  
E-mail: [legal@m-x.ca](mailto:legal@m-x.ca)

A copy of these comments shall also be forwarded to the *Autorité des marchés financiers* (the "**Autorité**") to:

M<sup>c</sup> Anne-Marie Beaudoin  
Corporate Secretary  
*Autorité des marchés financiers*  
800 Victoria Square, 22<sup>nd</sup> Floor  
P.O. Box 246, Tour de la Bourse  
Montréal (Québec) H4Z 1G3  
E-mail: [consultation-en-cours@lautorite.qc.ca](mailto:consultation-en-cours@lautorite.qc.ca)

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**

For your information, you will find in the appendices an analysis of the proposed amendments as well as the amended BAX contract specifications. The implementation date of the proposed amendments will be determined by the Bourse, in accordance with the self-certification process as determined by the *Derivatives Act* (R.S.Q., chapter I-14.01).

### **Process for Changes to the Rules**

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 and Procedures. The Rules of the Bourse are submitted to the Autorité in accordance to the self-certification process as determined by the *Derivatives Act* (R.S.Q., chapter I-14.01).



## **MODIFICATIONS TO THE CONTRACT SPECIFICATIONS FOR THE THREE-MONTH CANADIAN BANKERS' ACCEPTANCE FUTURES CONTRACT**

### **MINIMUM PRICE FLUCTUATION**

#### **I. OVERVIEW**

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 second, third and fourth quarterly BAX contract months be reduced from 0.01 per \$100 nominal value (a full tick), to 0.005 per \$100 nominal value (a half tick).

#### **II. ANALYSIS**

##### **Description and Analysis of Impacts**

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 included 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. Our 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.

The Bourse contends that the reasons cited for the change in 2002 still apply today.

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 six 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. Tighter spreads cannot hurt business 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 Australian 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 volatility 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). When trading in the short end, only once a participant has tried to execute through a SEF and has been unable to get a fill do they turn to the BAX. Finally, they claim that having participants view the BAX as a pricing source or a trading venue of last resort does not bode well for the future of the market.

The Bourse believes that the proposed reduction in minimum price fluctuation will yield immediate dividends to the market. 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 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 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; however a large portion of that growth has come from liquidity providers. Trading volumes attributable to end-user clients have not grown as they should have. 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, which has been long 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 next three listed contract months 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-users 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 contract 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 by as much as tenfold. 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.

While the Bank of Canada's stance has shifted from dovish to neutral, the market has been waiting for movement in the bank rate since 2010. Over this time, the Bourse has observed that the minimum price fluctuation is simply too large for the BAX contract 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 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.

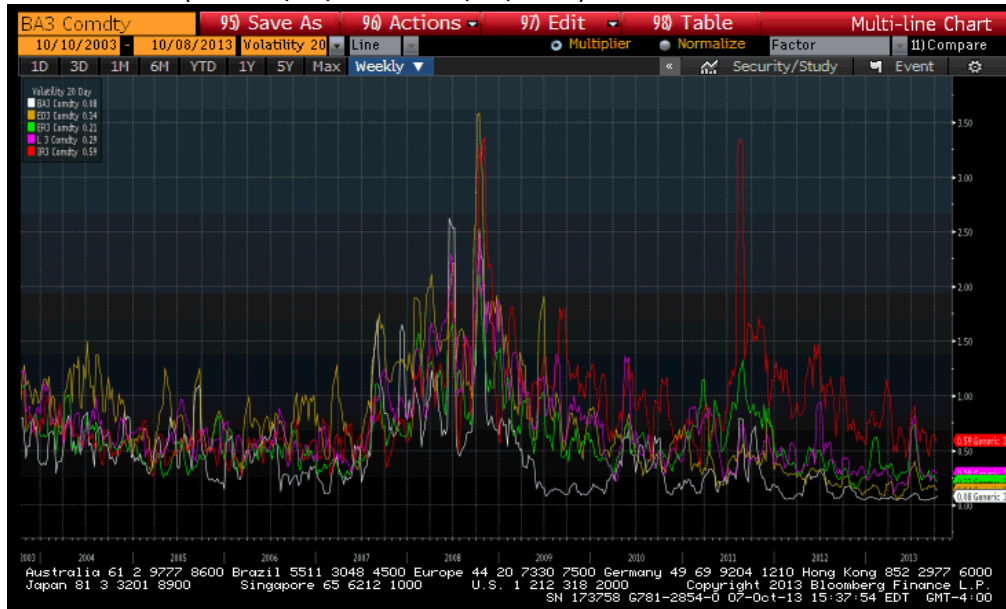
The pace at which developments are occurring has also caused competitive battles in the STIR space amongst international exchanges such as ICE, CME and NLX.

The Bourse's 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.

**Figure 1 – Volatility of the BAX contract compared to the volatility of four major international STIR contracts (from 10/10/2003 to 10/08/2013)**

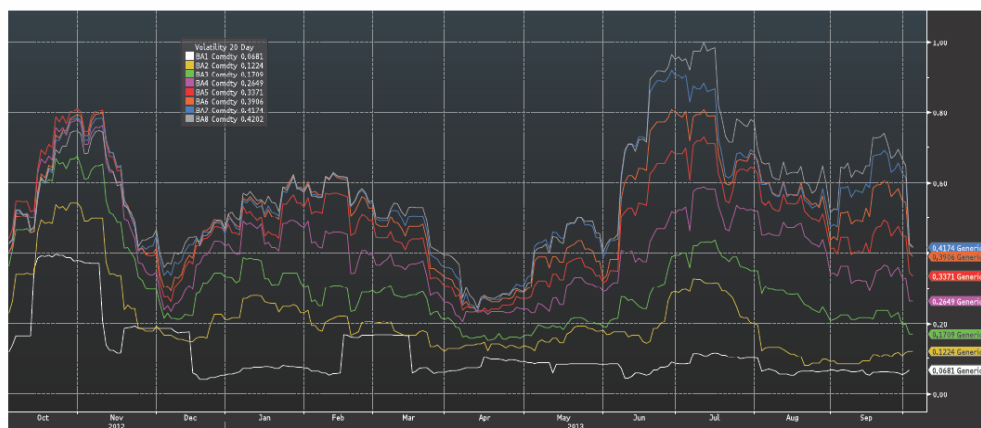


Source: Bloomberg, LP

**Figure 2 – Sustained low volatility for the first four quarterly BAX contract months (from 10/10/2003 to 10/08/2013)**

BA1 Comdty (Generic 1st 'BA' Future)  
 BA2 Comdty (Generic 2nd 'BA' Future)  
 BA3 Comdty (Generic 3rd 'BA' Future)  
 BA4 Comdty (Generic 4th 'BA' Future)

**Bloomberg**  
 BA5 Comdty (Generic 5th 'BA' Future)  
 BA6 Comdty (Generic 6th 'BA' Future)  
 BA7 Comdty (Generic 7th 'BA' Future)  
 BA8 Comdty (Generic 8th 'BA' Future)



Source: Bloomberg, LP

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 2013, total trading volume increased by 9% and open interest increased by 48%. On the other hand, the ratio of bids and offers to executed volume in the BAX contract is significantly higher than those of major international STIR contracts.

This means the BAX has more than twice as many resting orders as comparable international STIR futures contracts.

**Table 1** – Ratio of resting orders to executed orders on the first four quarterly contract months compared to the average ratio of major international STIR futures contracts

BAX contract month	Ratio of bid-ask to executed volume
Second quarterly contract	3.1681
Third quarterly contract	1.0322
Fourth quarterly contract	0.4388
First four quarterlies	2.0414
Average ratio for major international STIR contracts (first four quarterlies) <sup>1</sup>	0.7830

Source: Research & Development, Bourse de Montreal Inc.

The BAX’s daily volatility to minimum price fluctuation ratio is also quite low compared to other international STIR contracts. Expectations are that as the daily volatility to minimum price fluctuation ratio increases, BAX turnover will increase. Consequently, it will become less costly for participants to enter and exit positions as well as a greater proportion of resting orders will be filled. The increase in activity will attract new participants to the BAX market, offering liquidity providers a wider range of counterparties with whom to trade.

**Table 2** – Ratio of daily volatility to minimum price fluctuation for the BAX compared to that of five major international STIR futures contracts.

Contract	Exchange	Half ticks	USD tick value	Daily volatility	Ratio of volatility to tick value
BAX	The Bourse	No	24.48	28.47	1.163
Bank Bills	SFE	No	23.09	84.86	3.675
Short Sterling	NYSE Euronext LIFFE	No	19.60	33.51	1.710
Eurodollar	CME	Yes	12.50	27.01	2.161
Euribor	NYSE Euronext LIFFE	Yes	16.67	78.70	4.721

Source: Research & Development, Bourse de Montreal Inc.

<sup>1</sup> The eight international STIR contracts are as follows:

30-Day Fed Funds Futures - [http://www.cmegroup.com/trading/interest-rates/stir/30-day-federal-fund\\_contract\\_specifications.html](http://www.cmegroup.com/trading/interest-rates/stir/30-day-federal-fund_contract_specifications.html)

Three-Month Euro Swiss Franc Futures - <https://globalderivatives.nyx.com/en/products/stirs-futures/S-DLON/contract-specification>

Three-Month Euroyen Futures - <http://www.tfx.co.jp/en/products/en.shtml>

(Three-Month) Eurodollar Futures - [http://www.cmegroup.com/trading/interest-rates/stir/eurodollar\\_contract\\_specifications.html](http://www.cmegroup.com/trading/interest-rates/stir/eurodollar_contract_specifications.html)

Three-Month Sterling Futures - <https://globalderivatives.nyx.com/en/products/stirs-futures/L-DLON/contract-specification>

90 Day Bank Bill Futures - <http://www.asx.com.au/documents/products/90-Day-bank-bill-futures-factsheet.pdf>

Three-Month Euro Futures - <https://globalderivatives.nyx.com/contract/content/29045/contract-specification>

New Zealand 90 Day Bank Bill Futures - <http://www.asx.com.au/documents/products/90-day-nz-bank-bill-factsheet-20120724.pdf>



## Drafting Process

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

## 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.

## Benchmarking

Reducing the minimum price fluctuation to a half tick for the next three listed contract months will harmonize the BAX with STIR markets around the world, such as the Eurodollar on CME, the Euribor on NYSE Euronext LIFFE and the Euroyen on TIFFE.

**Table 3** – Minimum price fluctuation of the BAX contract compared to that of five major international STIR contracts

Futures contract	Exchange	Minimum price fluctuation
BAX	The Bourse	The three 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 <sup>2</sup>
EURIBOR	NYSE Euronext LIFFE	0.005 <sup>3</sup>
EUROYEN	TIFFE	0.005 <sup>4</sup>
SHORT STERLING	NYSE Euronext LIFFE	0.01 <sup>5</sup>
BANK BILLS	SFE	0.01 <sup>6</sup>

Source: Research & Development, Bourse de Montreal Inc.

Table 3 demonstrates that most major 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.

As pertains to the minimum price fluctuation for SFE Bank Bill Futures, it is important to note that the economic environment in Australia is significantly different than that in Canada; specifically, volatility is significantly higher in Australia. In fact, Australia has the highest volatility

<sup>2</sup> CME Group: Eurodollar Futures Contract Specifications [http://www.cmegroup.com/trading/interest-rates/stir/eurodollar\\_contract\\_specifications.html](http://www.cmegroup.com/trading/interest-rates/stir/eurodollar_contract_specifications.html)

<sup>3</sup> NYSE Euronext LIFFE: Euribor Futures Contract Specifications <https://globalderivatives.nyx.com/contract/content/29045/contract-specification>

<sup>4</sup> TIFFE: Euroyen Futures Contract Specifications [http://www.tfx.co.jp/en/publication/document/pamphlet\\_euroyen03\\_e.pdf](http://www.tfx.co.jp/en/publication/document/pamphlet_euroyen03_e.pdf)

<sup>5</sup> NYSE Euronext LIFFE: Short Sterling Futures Contract Specifications <https://globalderivatives.nyx.com/contract/content/29101/contract-specification>

<sup>6</sup> ASX/SFE: Bank Bills Futures Contract Specifications <http://www.asx.com.au/documents/products/asx24-contract-specifications.pdf>

level amongst all of its peers, as is evidenced in Table 2, which also shows that the daily volatility to tick size ratio for the BAX is quite low in comparison to other international STIR contracts. Expectations are that, as the daily volatility to tick size ratio increases, turnover will increase and the prevalence of resting orders will abate.

Furthermore, in contrast to the BAX which features a constant minimum price fluctuation per expiry, the minimum price fluctuation for the ASX 90 Day Accepted Bank Bills Futures contract actually varies with the level of interest rates<sup>7</sup>.

In the case of the NYSE Euronext LIFFE Short Sterling Futures contract, a half tick minimum price fluctuation was introduced on all contract months in 2008 but, subsequent to the ensuing financial crisis, the exchange reverted back to a full tick minimum price fluctuation<sup>8</sup>. It should be noted that a full tick on the Short Sterling Futures is worth £12.50. This is roughly analogous to the half tick minimum price fluctuation that the Bourse is requesting for the BAX contract. The half tick minimum price fluctuation on the Short Sterling Futures resulted in a relatively low value per contract of £6.25. It can be presumed that the financial crisis coupled with the decrease in profitability for liquidity providers may have forced many of them out of the market.

### **III. SUMMARY OF THE PROPOSED AMENDMENTS TO THE RULES OF THE BOURSE**

The Bourse proposes to amend the minimum price fluctuation criteria on the BAX contract specifications, changing it from *0.005 = C\$12.50 per contract for the three (3) nearest listed contract months, including serials* to *0.005 = C\$12.50 per contract for the six (6) nearest listed contract months, including serials*.

### **IV. OBJECTIVES OF THE PROPOSED AMENDMENTS TO THE RULES OF THE BOURSE**

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.

### **V. PUBLIC INTEREST**

Since the purpose of these amendments is to accommodate overwhelming demand from market participants to reduce the minimum price fluctuation of the second, third and fourth quarterly BAX contract months, the Bourse considers that these amendments are in the public interest.

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<sup>7</sup> ASX/SFE: Bank Bills Futures Contract Specifications <http://www.asx.com.au/documents/products/asx24-contract-specifications.pdf>

<sup>8</sup> FOW: Liffe scraps half tick on sterling Libor, Eurex rethinks Bobl <http://www.fow.com/article/2118166/issue/26557/liffe-scraps-half-tick-on-sterling-libor-eurex-rethinks-bobl.html>

**VI. 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.

**VII. ATTACHED DOCUMENT**

Three-Month Canadian Banker's Acceptance Futures Contract Specifications.

## BAX – Three-Month Canadian Bankers' Acceptance Futures

# Specifications

<b>Trading Unit</b>	C\$1,000,000 of Canadian bankers' acceptances with a three-month maturity.
<b>Contract Months</b>	Quarterly: March, June, September and December. Serials: two (2) nearest non-quarterly months.
<b>Price Quotation</b>	Index: 100 minus the annualized yield of Three-month Canadian Bankers' Acceptances.
<b>Last Day of Trading</b>	Trading ceases at 10:00 a.m. (Montréal time) on the 2 <sup>nd</sup> London (Great Britain) banking day prior to the 3 <sup>rd</sup> Wednesday of the contract month. If the determined day is an exchange or banking holiday in Montréal or Toronto, the last trading day shall be the previous bank business day.
<b>Contract Type</b>	Cash settlement.
<b>Minimum Price Fluctuation</b>	0.005 = C\$12.50 per contract for the <del>sixthree</del> (63) nearest listed contract months, including serials. 0.01 = C\$25 per contract for all other contract months.
<b>Reporting Limit</b>	300 contracts.
<b>Position Limits</b>	Information on position limits can be obtained from the Exchange as they are subject to periodical changes.
<b>Final Settlement Price</b>	Based on the average of Three-month Canadian bankers' acceptance bid rates as quoted on CDOR page of Reuters' Monitor Service on the last trading day at 10:15 a.m. (Montréal time), excluding the highest and the lowest values.
<b>Minimum Margin Requirements</b>	Information on minimum margin requirements can be obtained from the Exchange as they are subject to periodical changes.
<b>Daily Price Limits</b>	None.
<b>Trading Hours</b> (Montréal time)	Regular session: 6:00a.m. to 4:00 p.m.  Note: During early closing days, the regular session closes at 1:30 p.m.
<b>Clearing Corporation</b>	Canadian Derivatives Clearing Corporation (CDCC).
<b>Ticker Symbol</b>	BAX