BAX Fallback - Discussion

Updates and impacts of the global benchmark transition on Canadian markets



May 27, 2021

Agenda

Introduction

CORRA Futures Update - year 1 in review

Global Benchmark Transition Update

• LIBOR discontinuation / USD and GBP market updates

Fallback provisions Update

• ISDA fallbacks / Cleared OTC markets / Futures and Options markets

Canadian Context Update

- CARR works on CDOR
- CSA's benchmark regulation
- BAX fallback provision

Follow-up survey



Introduction

Meeting objectives

- Inform of major developments in global and Canadian markets on benchmark transition
- Create awareness of potential impacts for the BAX market
- Gather views on BAX fallback provision

Participants

- MX/CDCC representatives
- Former CORRA Futures workstream members
- Additional key BAX participants

Format

• Short presentation followed by a group discussion



CORRA Futures (CRA) Update

3M CORRA Futures (CRA) successfully launched on June 12, 2020

Market making program in first 4 CRA outright contracts and CRA / BAX strategies listed

Key statistics since launch:

- 23k+ contracts traded across ten different expiries
- Highest daily volume: 2,070 contracts on Jan 22, 2021
- 52 accounts involved in more than 730 transactions
- Small volume traded during extended hours (2am-6am)
- Successfully completed three expiry cycles

Some issues reported by market participants in third party providers trading platforms

• Management of the front month contract, as the Contract Month (ex: Z20) does not correspond to the Expiry Month (ex: Z20 expires in H21)



Penetration rate vs international peers

- 3M CORRA Futures statistics relative to BAX are comparable to similar international RFR futures vs Benchmark STIR futures after the first year.
- 3M SOFR and 3M SONIA Futures have picked up since Q4 of 2020, following many regulatory / central banks announcements.

Period	Average D	aily Volume		Open Interest (average over the period)			
	3M CORRA Futures ADV	BAX ADV	%	3M CORRA Futures OI	BAX OI	%	
1Y after launch	98	83 834	0.12%	5 297	1 202 709	0.44%	
	3M SOFR Futures ADV	Eurodollar ADV	%	3M SOFR Futures OI	Eurodollar OI	%	
1Y after launch	11 129	2 724 969	0.41%	26 825	13 754 304	0.20%	
2021	82 228	2 342 506	3.51%	481 712	11 301 056	4.26%	
	3M SONIA Futures ADV	Sterling ADV	%	3M SONIA Futures OI	Sterling OI	%	
1Y after launch	7 660	790 619	0.97%	18 273	3 680 089	0.50%	
2021	106 983	606 040	17.65%	192 677	4 605 496	4.18%	



Market participants feedback

- Activity flow is currently driven by CAD swap desk / dealers
- Early test trading, participants getting comfortable with the product
- General feeling that there is no rush to push CORRA mandate
- Catalysts needed to see a strong uptick:
 - Benchmark transition in the cross-currency swap market
 - Involvement of FRN issuers
 - Clear message from regulators / decision makers to use CORRA

What's next?

Reduction of minimum tick size for front CRA contract

• From 0.005 = C\$12.50 to 0.0025 = C\$6.25

Options on 3M CORRA Futures / Launch of 1M CORRA Futures



Global Benchmark Transition Update

Multiple recent announcements fostering the development and adoption of alternative references rates, particularly in Europe and in the US.

FCA: All Libor settings will cease to be provided or no longer be representative

- December 31, 2021 for GBP, EUR, CHF and JPY + 1W and 2M USD
- June 30, 2023 for the remaining USD settings (3M US Libor)

Bank of England and ARRC published recommendations to facilitate the transitions from Libor rates to alternative reference rates, such as SONIA and SOFR

- Transitions roadmaps (GBP market)
- Cessation of new Libor transactions that would terminate after the end of the year
- Listed market: official statement to encourage participants to move to SONIA futures



Fallback provisions update

Bilateral OTC market

- ISDA fallbacks for derivatives linked to key benchmarks came into effect on January 25, 2021 and apply to all new derivatives transactions from that date.
- The fallback for each IBOR setting will be based on the *relevant RFR compounded in arrears, plus a spread adjustment* calculated using a historical median approach over a five-year lookback period
- Bloomberg is the official calculation and publication agent of ISDA fallback rates / spread adjustments

Cleared OTC market

- Conversion of IBORs swaps into market-standard RFR OIS swaps, in which LIBOR is replaced by the <u>relevant</u> <u>compounded RFR plus a spread adjustment</u>
- Slights tweaks to observation and payment dates to match the convention in the RFR swap market.

Listed market (futures and options)

- CME and ICE plan to convert IBORs futures/options in RFR futures/options
 - Again, conversion of forward-looking IBOR exposure into backward-looking RFR exposure.



Fallback provisions update

CME:

- Conversion date: 3M SOFR futures assignment price = Eurodollar futures price + spread adjustment (ISDA)
- Eurodollar options conversion: the "ISDA spread adjusted Eurodollar strike" mapped to the nearest optimal standard strike(s) and contract months in options on 3M SOFR futures, according to standard options valuation methodologies (determined by the exchange).

ICE:

- Conversion date: Sterling futures assignment price = 3M SONIA futures price spread adjustment (ISDA)
- Sterling options conversion: Similar to CME, including a "time value" adjustment to compensate for the shift in expiry date

Impact (for a position in a June IBORs futures contract): After the conversion, a participant will have a June RFR futures contract (that expires in September), and the final settlement will be based on the realized RFR values during the June-September (reference quarter) period.

Note: In the case of CME and ICE, the "exposure period" between Eurodollar and Sterling Futures vs their corresponding 3M RFR futures is aligned (all based on IMM dates). At MX, there is a 2-day period difference between the "exposure period" of BAX and 3M CORRA futures (see appendix 1)



Canadian market update

CARR is undertaking an in-depth analysis of the CDOR benchmark

• Analysis and recommendations will be submitted to CFIF members in September.

CSA is expected to implement Benchmark regulation in the upcoming months

• National Instruments 25-102 - Designated Benchmarks and Benchmark Administrators

CDOR's 6M and 12M tenors have been discontinued by Refinitiv (CDOR administrator)

• Created an "Index Cessation Event" under ISDA's fallback protocol.



Fallback triggers: MX plans to align with OTC market

- Public statement by or on behalf of the **administrator** of the rate announcing that it has ceased or will cease to provide the rate permanently or indefinitely
- Public statement by the regulatory supervisor for the administrator of the rate or the central bank for the currency of the rate, which states that the administrator of the rate has ceased or will cease to provide the rate permanently or indefinitely.
- Non-representativeness (TBD) The regulatory supervisor has determined that such rate is no longer, or as of a specified future date will no longer be, representative of the underlying market and economic reality that such rate is intended to measure.
 - Not in ISDA fallbacks for CDOR; or in CAD fallback proposal for FRN; but seems to be included at LCH for CDOR.



Fallback procedure: Proposed Alternatives

1. Replicate CME and ICE fallbacks: Conversion of remaining open BAX contract into corresponding 3M CORRA (CRA) futures

Ex: On the conversion day, a June BAX position would be converted into a June CRA position, using a formula (ex: 3M CORRA Futures price = BAX price + spread adjustment (ISDA)).

- Aligned with international standards
- Operationally challenging at CDCC / Clearing Member level; not a quick turnaround
- "Forces" a transfer into a product in development stages (limited liquidity down the curve)
- Need a solution for OBX (CRA options not listed yet)



Fallback procedure: Proposed Alternatives

2. Keep BAX contracts alive (until their respective expiry date), and calculate the final settlement price = CORRA Futures price - spread adjustment (ISDA).

Ex: June BAX expiry date: the final settlement price would be the June CRA end of day price - the spread adjustment (ISDA).

- Simple and operationally friendly
- BAX FSP* would follow the same methodology as the "conversion price" at ICE and CME
- Not aligned with OTC markets (FSP still based on a forward-looking rate)

*FSP = Final Settlement Price



Fallback procedure: Proposed Alternatives

3. Keep BAX contracts alive, but modify the expiry date by one quarter and set the final settlement price = CORRA Futures price (on CRA expiry day) - spread adjustment (ISDA).

Ex: June BAX contract: Expiry date moved to September IMM date (expiry date of the June CRA contract) and FSP = to the June CRA FSP - spread adjustment (ISDA).

- Similar to alternative 1, but keeping the BAX infrastructure for users not set-up to trade CRA
- Participants can manage pace of transition into CRA futures
- Need a solution for OBX (as expiry date will change)



Summary of Alternatives

Alternatives	June 2021 BAX expiry date	Final settlement price determination	Exposure period covered by June 2021 BAX expiry	Comments	
Reference (current BAX expiry process)	Monday June 14	3M CDOR on June 14	June 14 + 3M (forward looking)	3M CDOR applies from the fixing date (observed date) for a 3M period	
#1 (BAX to CRA conversion)	Wednesday September 15	June CRA FSP	June 16 to September 15 (backward-looking)	There is a 2-day difference between BAX and CRA	
#2 (BAX kept alive, calculate FSP based on CRA price)	Monday June 14	June CRA price - June 16 to September 15 ISDA spread adjustment (forward-looking)		exposure period. Change from a contract that expires in June (BAM1) to a contract that expires in September (CRAM1)	
#3 (BAX kept alive, shift in expiry date and FSP calculated based on CRA FSP	Wednesday September 15	June CRA price - ISDA June 16 to September 15 spread adjustment (backward-looking)			



Considerations

- MX needs a license from Bloomberg to use the official ISDA CAD spread adjustment (Bloomberg is referenced in LCH/CME fallback language in their rules).
- Slight mismatch of 2 days between the BAX and CRA contracts "exposure period", impacting the the "seamlessness" of the alternatives.

	Rate convention	Lag between STIR fixing and	STIR futures expiry day (of	STIR futures "exposure" period	RFR futures "exposure period	Comment
STIR and RFR exposure" period		settlement day	delivery month)		(based on IMM dates)	
	US market (US Libor)	2 day	3rd Monday	[3rd Wednesday of delivery month +3M]	[3rd Wednesday of delivery month +3M]	Aligned
	GBP market (Sterling)	0 day	3rd Wednesday	[3rd Wednesday of delivery month +3M]	[3rd Wednesday of delivery month +3M]	Aligned
HE FUTURE SYOURS TO SEE.	CAD market (CDOR)	0 day	3rd Monday	[3rd Monday of delivery month +3M]	[3rd Wednesday of delivery month +3M]	Not aligned

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