GoC Market Functioning Steering Group (GMF)

Nov 30, 2021

Approach for today's meeting

- Over the course of 2020-21, the GMF has developed and consulted with CFIF on components of the GoC Market Functioning Blueprint

- Today, we update CFIF on work since the last meeting and submit the near-final fail fee component of the Blueprint for review. **CFIF approval is requested at the Feb 2022 CFIF meeting**
  - The Blueprint incorporates adjustments based on CFIF members' feedback so far
  - We invite CFIF members to share this deck within their respective institutions to solicit broader feedback
  - Between now and February, we are available for bilateral follow-ups to answer questions

- The Blueprint comprises:
  - The fail fee calibration, incl. fee structure, and in-scope transactions **[for review and approval by Feb 2022,** see slides 14-25]
  - A proposal for a trial period and the framework's governance structure **[for review and approval by Feb 2022,** see slides 26-31]
  - Overview of CDS build and potential rulebook/documentation changes to help establish the fail fee **[for preliminary review,** see slides 32-35]
  - High-level preliminary best practices recommendations, and an approach for further investigation of potential operational enhancement to reduce settlement frictions **[for information/feedback,** see slides 36-39]

- Pending approval of the Blueprint, a wider market consultation would follow on the fail fee components
  - Slide 8 outlines the sequence of potential next steps

Agenda for Nov 30
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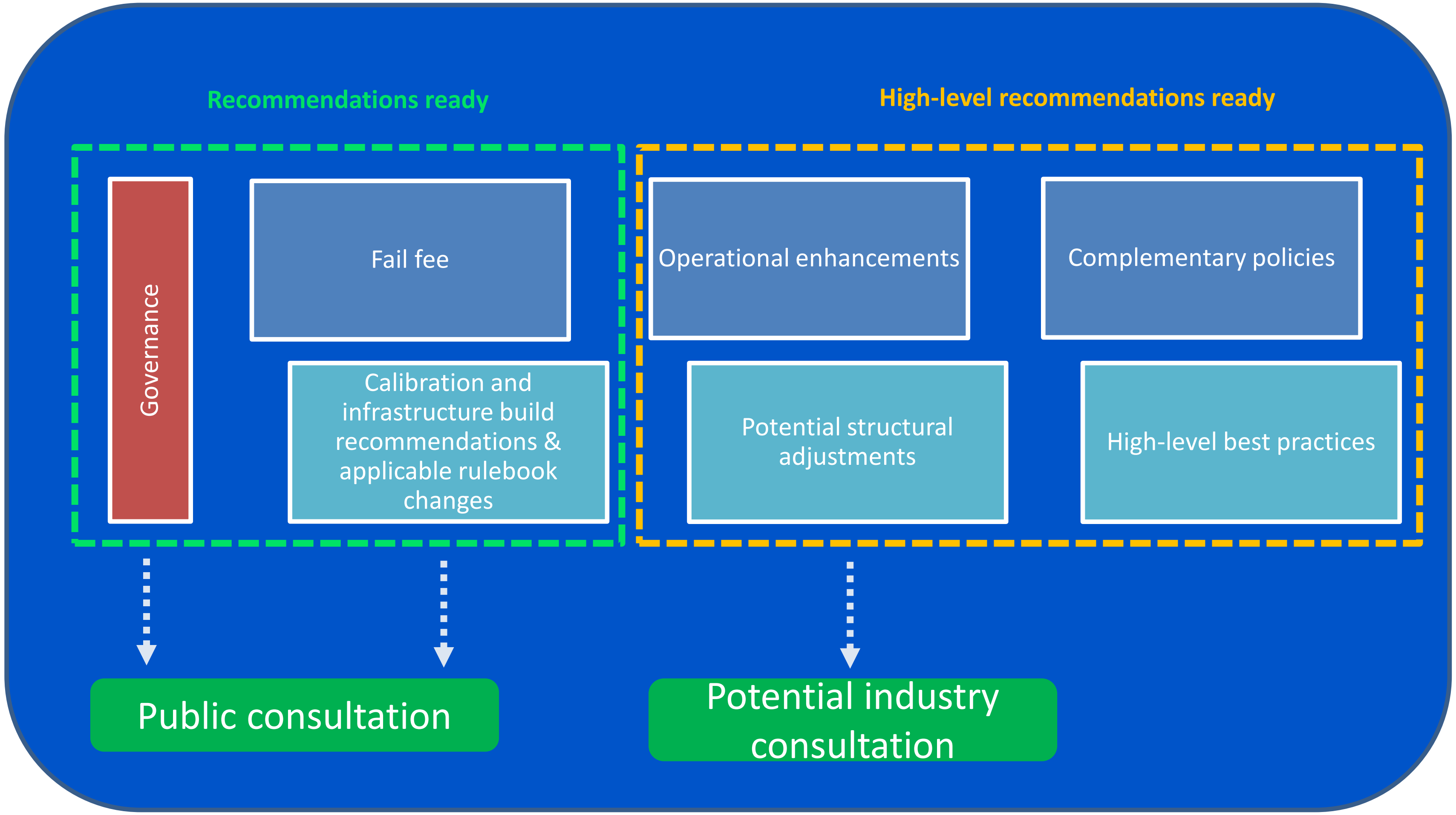
1. Update on recent progress

1a. Overview of the Blueprint and milestones

The Blueprint deliverable with design and feasibility recommendations



- Members should note that a potential consultation on structural adjustments is separate from the consultation on the fail fee

Milestones 2019 - 2022

May 2019

The Canadian Fixed Income Forum (CFIF)* sponsors a workshop with broad participation to discuss considerations for adopting a potential minimum cost of failing.

2020

- **Jan**: CFIF sponsors the creation of the GMF
- **June**: The GMF begins its work to deliver a blueprint for a GoC Market Functioning Framework

June - Sep 2020

- GMF examines fail fee and mandatory buy-ins as potential incentive mechanisms
- **Sep:** CFIF endorses GMF recommendation to **proceed with a fail fee** in the Blueprint

Sep 2020 – May 2021

GMF Working Groups are formed and begin work:

- Calibration of the fail fee
- Investigation of feasibility of modifying settlement infrastructure and capturing DvD transactions
- Industry survey to identify key bottlenecks in settlement system

June 2021 CFIF meeting

- GMF delivers substantive update on progress on the Blueprint
- **CFIF supports the direction of the GMF's work**; requests further consideration of whether/how a fail fee would get turned on

July – Oct 2021

- GMF **incorporates CFIF feedback** into calibration and governance
- CPWG further develops high-level best practices and operational enhancements

Nov 2021 CFIF meeting

GMF delivers final Blueprint to CFIF:

- Fail fee calibration
- Preliminary high-level industry best practice recommendations & further investigate operational enhancement
- Estimates of infrastructure build

Feb 2022 CFIF

CFIF **decision on whether to proceed** with broad industry consultation

Preparatory work | Design Phase | Consultation Stage of Implementation (pending CFIF endorsement)

A look forward: potential milestones 2022 onwards, pending CFIF approval of Blueprint

Jan/Feb 2022 CFIF

- **CFIF decision** on whether to proceed with public consultation on fail fee/market-wide or targeted consultation on structural adjustments
- CPWG delivers final recommendation on best practices and structural adjustments

Q1 2022

- Reconstitute the GMF to further investigate governance considerations for inclusion in the potential white paper
- Final development of trigger thresholds in collaboration with CDS & consultation with CFIF

Q2 2022

- Potential white paper and public consultation subject to **CFIF agreement**
- Incorporate results of public consultation
- Further development of framework governance by GG

Q3 2022

- Finalized Blueprint is incorporated into proposed CDS rulebook changes
- Public consultation on rulebook changes

Q4 2022

- Adoption of revised CDS rulebook

Q4 2022/Q1 2023

- Trial period for fail fee begins

Consultation Stage of Implementation (pending CFIF approval)

Implementation

- Should an ad-hoc CFIF meeting be scheduled for January for further updates/discussion?
- Should we investigate the feasibility of expediting the timeline leading to a trial, given current market developments?

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1b. Updates on Blueprint components

Update on Blueprint components since the last CFIF meeting

Area	Description	Link	Slides
Updated calculation of thresholds for dynamic component	To streamline the computation of fail rates and trigger thresholds for the dynamic component, use a single fail rate based entirely on CDS data		21 – 22
Trial phase for fail fee	Formal review after 1-year payment exchange during trial phase now part of the recommendation		27
Framework governance	Additional guidance on framework governance, including during trial period, and considerations for the Governance Group		28 – 31
Updated CDS build	High-level overview of CDS build and cost estimate		33
List of rulebooks	List of rulebooks that may require updating to help establish the exchange of fail fee payments		35
Complementary Policies – list of high-level recommendations	Preliminary list of potential structural adjustments and high-level best practices that could be part of the framework		37 – 39

Thank you

2. Blueprint of the GoC Market Functioning Framework

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Why think about a forward-looking framework for GoC market functioning now?

- The overnight rate provides a financial incentive to settle GoCs, which diminishes in a low interest rate environment (the "price cap" in collateral markets)
  - BoC's effective lower bound is +25 bps, but negative rates are still in the toolkit
  - Increase in the share of passive international investors in the Canadian market, with minimum return requirements for lending
  - Price cap could potentially have an adverse impact on market functioning

- Setting up a framework in advance is preferable to rushing measures into place during a time of market stress

- The framework alleviates the price cap in collateral markets and also provides for a suite of complementary policies to address settlement frictions in GoC markets

- Canada lags other jurisdictions in carrying out this type of work

2a. Calibration of the fail fee component

Objectives of the fail fee calibration

- Calibration of the fail fee has to ensure that financial incentives for timely settlement are restored in a low/negative-rate environment to maintain well-functioning markets, including being applicable to all market participants
- Calibration also needs to take into account the structure and features of the Canadian market
- Recommendations for the Blueprint of the GoC Market Functioning Framework should take into account the following:

Fail fee parameterization

- Parameters of the fail fee, such as amount and type (e.g., static vs. dynamic)
- Reference rate selection
- Definition of a fail, incl. transactions in scope
- Identification and mitigation of obstacles to broad adoption

Fail fee trigger

- Is the fail fee permanently turned on, or does it toggle?
- Which (market) conditions would trigger the fee (in either scenario)?

Governance and success metrics

- Who owns the governance of the fee?
- How should the fee be reviewed to determine if it is meeting its intended objective?

Recommendation of a hybrid fail fee model in steady-state

- Recommended fail fee structure is hybrid: a 50bp static, de-minimis fee + dormant dynamic component, activated if trigger criteria are met
  - Only the 50bp fee is permanently activated
  - Dynamic component provides 150bps of total incentive to allow collateral markets to clear at low/negative interest rates if fails persistent and elevated

$$Fail\ fee_t = \begin{cases} 0.50\% & \longrightarrow \text{Baseline static fee implementation} \\ max\{1.50\% - BoC\ Target_t, 0.50\%\} & \longrightarrow \text{Contingent dynamic fee activation if 50bps insufficient} \end{cases}$$

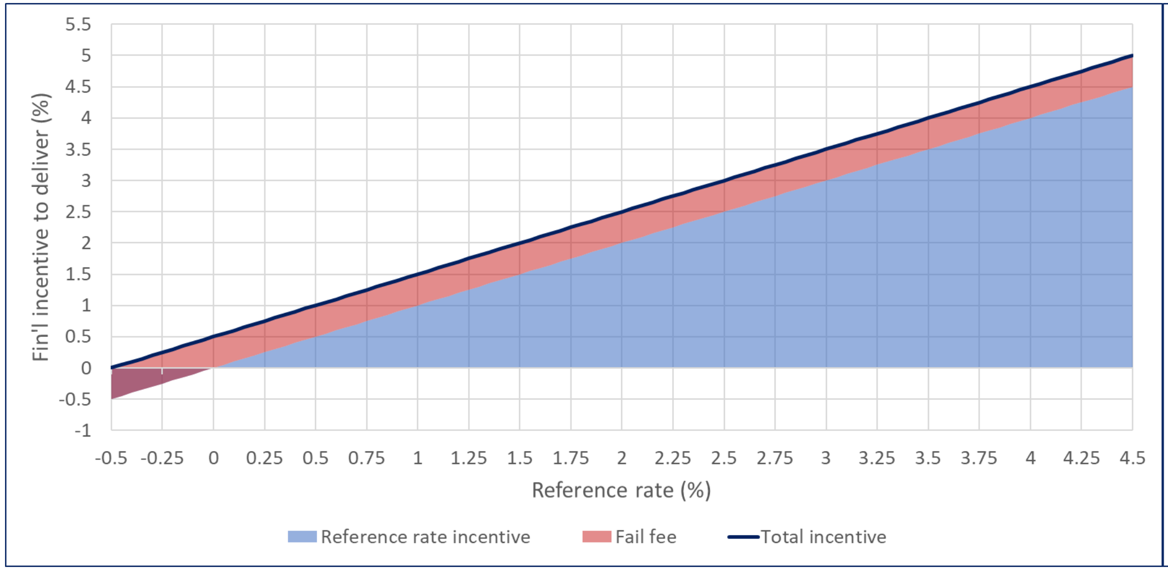
- Calibration reflects the following:
  - De-minimis fee accounts for markets having generally functioned well in recent times, while the contingent dynamic component provides insurance with manageable up-front governance
  - Dynamic component acts as deterrent, even without activation
  - Dynamic component has simple built-in “off switch”: when the BoC target is at or above 1%, fee reverts back to 50bps until triggered again
  - Formula and activation criteria will be transparent to market participants

Note: the calibration above applies to the steady state, after a potential trial period and subsequent review. **During the trial period, the fee would be set at 25bps, and the dynamic component would remain inactive** (also see slide 27)

Settlement incentives provided by the hybrid model

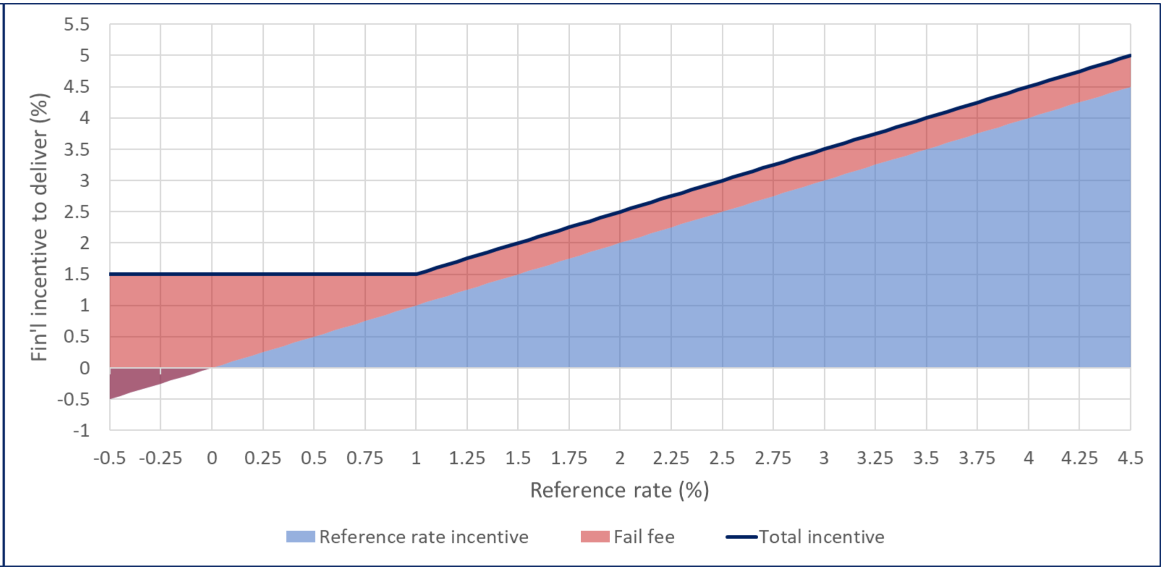
Note:
- Fail fee is amount charged to market participants for failing;
- Total financial incentive to settle = fail fee + O/N rate

A. Baseline 50bp implementation



Constant 50bp fee at all levels of the reference rate

B. Contingent dynamic component



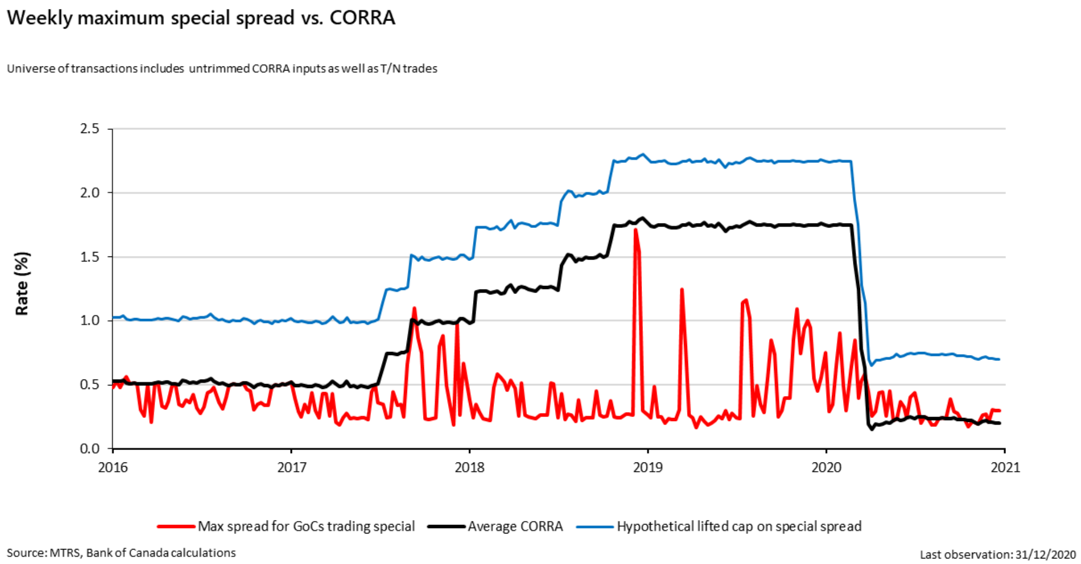
If the dynamic component is activated, fee increases to maintain a total incentive of 150bps when reference rate dips below 1%

Why is the parameterization of the fail fee component appropriate?

- Analysis of GoC bonds trading ‘special’, combined with absence of persistent, large fails suggests that a **50bp static fee would sufficiently expand** the bargaining space for collateral in an environment such as during 2016-2021

- To allow collateral markets to clear at zero/negative interest rates, or if a shock leads to persistent and elevated fails, the **150bp dynamic fee** would provide additional incentives, if needed
  - 150bps is reflective of where maximum specialness in GoC market has been recently

- Overall, a de-minimis approach that provides insurance (contingent dynamic component) with manageable up-front governance is seen as the most appropriate approach for Canada



Calculation of the fee

$$Fail\ fee\ amount = \frac{1}{365} * rate * P$$

$$rate = \begin{cases} 0.50\% \\ max\{1.5\% - BoC\ Target_t, 0.50\%\} \end{cases}$$

Baseline implementation

Contingent dynamic component

$P =$ the amount of funds due from the non−failing party (for a delivery−versus−payment transaction)

<u>Additional considerations:</u>

- Fail fee payment amounts would be calculated daily, but only exchanged monthly on a net basis
- Transfers would only occur if monthly totals between counterparties exceeds a minimum transfer amount (to be determined)

Activation criteria for the dynamic component

- The dynamic component provides 150bps of total settlement incentive in situations where the 50bps de-minimis fee is insufficient
  - It should only be activated if GoC market experiences material, sustained pressure resulting in fails

- To reflect sustained pressure, the activation trigger is based on a combined 10-day moving average fail rate in the GoC cash and repo markets, not single-day fail rates

- Before reaching the activation threshold, a separate warning level would be crossed
  - The BoC, on behalf of the governance group responsible for the framework, would inform market participants via market notices or on Bloomberg when the 10d-MA fail rate crosses the warning level
  - Warning level allows market to self-correct (may no longer need to trigger the dynamic component)
  - To provide transparency, CDS would make fail rates available on its website or via Bloomberg

- The final trigger- and warning thresholds will be calibrated using CDS fails and settlement data

Feature	Criteria based on combined repo and cash fails
Warning	10d-moving average (MA) fail rate $\geq$ warning threshold
Activation	10d-moving average (MA) fail rate $\geq$ trigger threshold

Proposed streamlined trigger methodology for the dynamic component

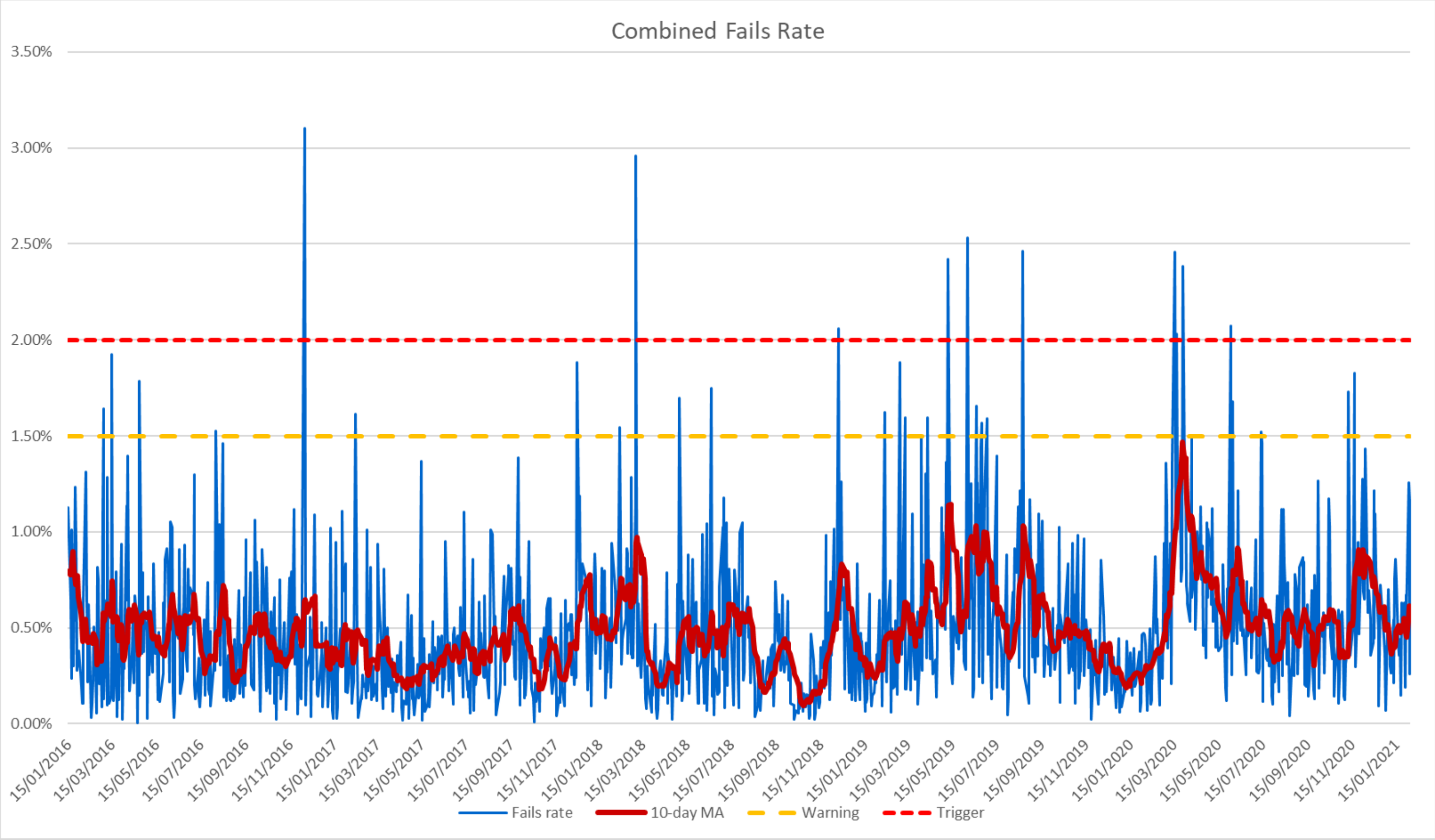
- An earlier calibration based the thresholds for the dynamic component on separate fail rates for cash and repo

- To improve the consistency of the fail rate calculation and to simplify the activation metric, we suggest adjustments:
  - Calculate thresholds based on a single fail rate for cash and repo
  - In the fails rate numerator, combine cash and repo fails (CDS data)
  - In the fails rate denominator, replace MTRS-based settlement volumes with CDS-based settlement volumes

- Changing the calculation and associated thresholds does not change the philosophy of the methodology or outcomes:
  - Trigger threshold: set around maximum daily fail rate peaks
  - Warning threshold: set to avoid unnecessary warnings while providing enough room for market self-correction

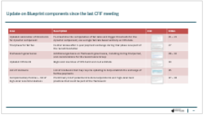
- Final thresholds would be set in collaboration with CDS and in consultation with CFIF

Illustration: GoC fail rates and dynamic component thresholds



- Note : This sample calibration is for illustration only.
  - Fail rate excludes aged fails and is still based on settlement volumes from MTRS2
- Final thresholds may change somewhat when CDS settlement volumes are used
- Methodology :
  - Activation threshold for the dynamic component is set near daily peaks, approx. 4 times the average fail rate over the entire period
  - Warning threshold is set at approx. 3 times the daily average fail rate over the entire period
- Over the sample period 2016-2021, the 10-day moving average would **not** have breached the activation trigger for the dynamic component

Feature	Sample criteria based on combined repo and cash fails
Warning	E.g., 10d-moving average (MA) fail rate $\geq$ 1.5%
Activation	E.g., 10d-moving average (MA) fail rate $\geq$ 2%



Fail fee: transactions in scope

- Largely mirrors the US approach
- A fail fee should not be applied where other rules (such as by exchanges or clearing agencies) may already stipulate penalties for non-delivery of a GoC security
- Where central tracking of fails or charging/distributing a fail fee via CDS is not possible, existing documentation (GMSLAs, MSLAs) allows failed-to counterparties to claim a fails charge bilaterally from the failing counterparty.

Broad categorization	Instruments and transaction types	Included	Comments
Delivery-vs-payment (DvP)	Bills, nominal bonds, RRBs, strips (cash and repo transactions)	Y	Centrally tracked through CDS
	Others	N	Should not go beyond GMF mandate at this point, so only GoCs are in scope
Delivery-vs-delivery (DvD), free-of-payment (FoP), pledges	Securities lending market (failure to deliver GoCs)	Y*	*Bilateral claim; central tracking of fails would be challenging
	Options, futures and forwards (physical GoC delivery)	Y*	*Bilateral claim; central tracking of fails would be challenging. Applicability only to failure to deliver the underlier when there is physical delivery

Delivery-versus-delivery (DvD) transactions pose unique challenges for applying a fail fee

- GoC securities lending market is large, with approximately $120B on loan at any given time
  - For comparison: average daily volumes (MTRS2, net) are ~ $10B – $20B (cash market) and ~ $20B – $40B (repo market)
  - In Canada, securities loans are predominantly versus securities collateral, not cash (as in the US), which complicates capture through the standard CDS settlement process
  - Compared to cash and repo markets, it is uncommon to lend a security without having it in inventory, which lowers the incidence of fails

Securities Loan
(~ $120B out on loan of available ~$550B)

Collateral

Securities collateral
(~ 90-95%)

Cash collateral
(~ 5-10%)

Settlement

Securities (loan and collateral) are transferred free of payment

Implications

- DvD fails associated with securities loans are generally upstream of a DvP fail (i.e., they would be "captured" by the DvP fail)
- DvD fails can be difficult to define and track in CDS (e.g., failed recalls are not captured in CDS)
- Tickets contain no proceed amounts to which a fail fee can be easily applied

- An infrastructure build to centrally track DvD/FoP fails would be challenging to implement and is out of scope of this recommendation

Recommendation on how to capture different types of transactions/settlements and ensure level playing field

Delivery fail

Cash/repo trades (DvP)

Captured in CDS
- Infrastructure build to provide a monthly billing function to its participants
- Would include "audit trail" of failed transactions

Securities lending (DvD)

Captured bilaterally
- Out of scope of the CDS infrastructure build, but existing documentation (GMSLAs, MSLAs) allows cash trade fail fee to be apportioned
- E.g., a recalling party can pass on the fee bilaterally (though it may choose not to), which should have the desired effect on the failing party
- Agent lenders, custodians and prime brokers may need to provide transparency on DvD fails to clients to facilitate passing on the fee

Other – e.g., margin transfers (FoP)

Captured bilaterally
- Out of scope of the CDS infrastructure build
- Market participants could pass on a fee bilaterally if a margin transfer causes a downstream fail, which incurs a fee

2b. Fail fee trial period and governance

Trial period and potential transition to steady state

- The fail fee should undergo a trial period and major review prior to making the decision of whether to keep it permanently active:
  - In essence, a "try-before-you-buy" approach with a return policy

- Features of the trial period:
  - To minimize any potential disruption, the fail fee is set at 25bps, and the **dynamic component remains inactive**
  - For the first 6 months, CDS provides invoices at 25bps, but no fail fee payments are exchanged between market participants
  - After monitoring/resolving potential issues during the 6 month window, **payment exchange goes live for 12 months at 25bps**
  - After 12 months of payment exchange, a further review would assess how the market adjusted and whether to keep the fee active

- If kept active, fee would stay at 25bps until dynamic component is triggered for the first time
  - After turning off the dynamic component, permanent floor would be 50bps, as per steady-state calibration

Plumbing is built, CDS issues test invoices with a 25 bps fee (but no payments are exchanged)

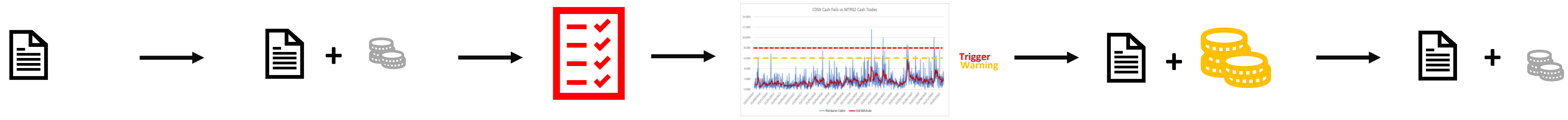
After a successful 6 month dry-run period, invoiced payments are exchanged (at 25bps fee)

Major review after 18 months, with decision point on whether to keep active

If kept active fail fee stays at 25 bps, until fail rate breaches trigger at or near the ELB

If the dynamic component is activated, fail fee payments increase to 150bps – BoC target

Fails subside, and fee reverts to 50bps permanent floor once BoC raises rates



Governance of the GoC Market Functioning Framework

The high-level governance considerations below (in Q&A format) could be further developed if CFIF endorses the Blueprint and before a broad market consultation takes place

- Where does responsibility for governance of the GoC market functioning framework and its components (including the "best practices") rest?
  - While overall responsibility would rest with CFIF, a separate Governance Group (GG) would be formed

- What is the GG's relationship with CFIF? Does it have delegated authority from CFIF to monitor and make changes, if necessary?
  - The fail fee framework would be "given teeth" by being part of CDS's rulebook, which would require approval by the CSA and the BoC
  - GG would make recommendations to CFIF for approval. If any recommendations require rulebook changes, regulatory approval may be necessary (to the extent possible, triggering the dynamic component should be 'hard-coded')
  - Significant changes/decisions would also benefit from industry consultations

- What are the GG's responsibilities?
  - Monitor fails, holistically review the framework's effectiveness and recommend changes
    - This would be especially important during the trial phase
  - Formulate a recommendation of whether to keep the fail fee exchange active after the trial phase
  - Maintain associated best practices and documentation
  - Provide regular updates to CFIF

Q&As on governance of the GoC Market Functioning Framework

- Who chairs the GG, how are members appointed, and what is the composition of GG membership?
  - Prior to the public consultation, the GMF could be reconstituted as the GG
  - CFIF would appoint GG co-chairs for 2-year terms, with BoC and CDS being permanent members
    - BoC could co-chair during the first term along with market participant(s)
    - CFIF would endorse composition of the GG, appointments at co-chairs' discretion
  - Additional members and observers would include a broad range of stakeholders, including sell-side, levered and non-levered buy-side, custodians/agent lenders, prime broker, legal representation, CSA representative, industry associations
  - Around 10 members, possibly more during trial, fewer in steady state
  - Mix of expertise (e.g., traders, settlement experts)

- What is the process for decision-making within the group? Consensus-based, or will members vote on course of action? Do chairs have veto power? Will meetings be minuted? Who provides secretariat function?
  - To be determined later as part of the ToR , in consultation with CFIF and GG co-chairs

Q&A – dynamic component

- What happens when the warning threshold is breached?
  - GG to be informed, start of a 4-week monitoring cycle
  - On behalf of the GG, BoC would alert market participants that activation of the dynamic component could be imminent
  - Infrastructures (at minimum CDS) should also be informed

- What if the trigger threshold is subsequently breached?
  - Market participants should be informed of activation of dynamic component and effective date

- What if fail levels drop below the warning level and the trigger threshold is not breached?
  - Cancellation of warning at the end of the 4-week cycle, market participants notified

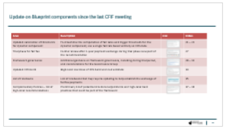
- What if fail levels do not drop and the trigger threshold is not breached?
  - Warning is renewed after 4 weeks, and issue will be further considered by GG

Considerations for the GG before and during the trial phase

- At the outset, the GG would need to meet frequently (possible monthly) to review the working of the fails charge. Meetings could be quarterly once it is up and running

- During the trial phase, the GG could solicit feedback from market participants, provide regular updates to CFIF and ultimately make a recommendation of whether to keep payment exchange active. The GG could holistically monitor the following criteria:
  - Operational issues, either transitory or persistent
  - Appropriate transmission of the fee beyond direct participants in CDS
  - Effects on market functioning, participation and liquidity
  - Effect on fails rates and specialness

- And if payment exchange is continued beyond the trial phase, the GG could:
  - Conduct periodic reviews of the framework; shortened review intervals whenever material changes take place (e.g., activation of dynamic fail fee component, persistent rise in fails without reaching activation trigger)
  - Also conduct ad-hoc reviews and recommend changes, e.g., if necessitated by market developments, including major changes to settlement process/infrastructure
  - Ensure that the fail fee parameters remain appropriate



2c. Preview of CDS build

Preview of a CDS fail fee infrastructure build

- CDS would provide the following (also see included document):
  - Daily:
    - Information for DvP fails in all designated securities will be captured
    - Dissemination of fail rates
  - Monthly:
    - Aggregated information to create an audit trail of all failed transactions
    - Audit trail in machine-readable format by participant, date, role, deliverer or receiver, including participant account details available to CDS and the fee due/owed by trade
    - Audit trail enables custodians, agent lenders and prime brokers to pass through and apportion the fail fee from CDS to their clients
    - CDS will sum the amounts due and owed on this audit trail and process the necessary entries to the cash ledgers of all parties

- Preliminary estimates of CDS build cost and fees suggests that **annual costs per CDS participant** would not be prohibitively large:
  - Annual cost during 5-year amortization of initial build: around $3,780 (plus pro-rata cost for Bloomberg fail rate dissemination)
  - Annual cost after amortization of initial build: around $1,890 (plus pro-rata cost for Bloomberg fail rate dissemination)
  - All CDS participants (CUIDs) transacting in GoCs would be subject to the fee

- Agent lenders, custodians, and prime brokers will need to operationalize the pass-through of any fail fees

2d. Potential rulebook changes

Rulebook and documentation changes

❖ Below is a list of relevant rulebooks and documentation that may require updating to help establish the exchange of fail fee payments

Rule/documentation	Changes required?		
	Yes	No	Notes
CDS rulebook/procedures	X		
CSA rules			TBD, awaiting feedback from CSA
IIROC Rule 2800			TBD, awaiting feedback from IIROC
GoC Primary Dealer T&C’s		Unlikely	
GMRAs/MRAs		X	Existing documentation should already allow for capture of a fail fee
GMSLAs/MSLAs		X	Existing documentation should already allow for capture of a fail fee
BoC program terms (e.g., SRO)	X		
Custodial agreements		Unlikely	Existing documentation should already allow for capture of a fail fee

2e. Preliminary best practice recommendations & potential operational enhancements

Best Practice – Approach to achieving the recommendations

- Overall, Canadian settlement processes are effective based on the level of fails in GoC securities and discussions with market participants. Therefore, the focus of the Complementary Policies Working Group (CPWG) has been to assess the "best practices" recommended by market participants.

- The CPWG will finalize these recommended high-level best practices in the near-term, including potentially adding additional recommendations and granularity, and will seek feedback on them in early 2022 from a wider range of market participants

- CPWG also continues its work to further investigate potential operational enhancements, which include:
  - Establishing pre-fail communications through settlement and clearing systems
  - Reducing manual intervention in the settlement process
  - Expanding timelines for settlement during high volume periods

Preliminary high-level best practice recommendations

- Market participants should avoid any strategies that create or exacerbate settlement fails. Participants should avoid strategic fails such as:
  - Entering into repurchase agreements with the intent to fail on the opening leg to speculate on rising repo rates;
  - Withholding deliveries to induce a counterparty to fail on a larger delivery in return to manufacture a fail fee payment

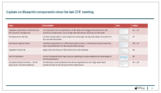
- To promote efficient market clearing and reduce settlement fails, market participants should avoid the practice of holding back deliveries until immediately before the cutoff time. Furthermore, participants are encouraged to follow the below best practices:
  - Relevant transaction information should be provided to counterparties well in advance of applicable cutoff times such that counterparties can make timely delivery of securities
  - Market participants should communicate and escalate potential fail issues in a timely manner
  - Incoming securities that are to be delivered to other counterparties should be expedited to minimize fails and promote market clearing and settlement
  - Counterparties should be aware of credit availability, exposures, and manage associated risks accordingly. Front and back-office staff should ensure that internal credit system and infrastructure offer appropriate transparency and communication in connection with credit issues that may contribute to fails

Preliminary high-level best practice recommendations continued

- Trade cancellations and corrections should be rare and occur only as a result of operational errors or other mistakes made in good faith
  - To the extent possible, we encourage participants to reduce manual intervention in the settlement process

- Market participants should be diligent in addressing persistent settlement fails
  - Practices that cause settlement fails should warrant high scrutiny from trading management, settlement staff, and compliance staff

- Market participants are encouraged to examine their current settlement protocols and to improve operational processes where greater use of the following is appropriate:
  - Automation
  - Communication enhancements
  - Simplified operational processes



3. Appendix

3a. Supplemental Q&A on fail fee

Q&A – Fail fee

- Why recommend the introduction of a fail fee in the GoC market? Is there a problem with fails?
  - The main purpose of the fail fee is to act as an insurance policy. It preserves an economic incentive to deliver securities in a zero/negative interest rate environment, when the incentive normally provided by the overnight rate vanishes.
  - The GoC market is currently not experiencing large and persistent fails. The calibration of the fail fee takes this into account by having only a de-minimis amount in effect, unless fail rates rise persistently and trigger the dynamic component.

- Why should a fail fee be turned on when there is no problem? And why would the fail fee not be turned off completely in times when the market is functioning well?
  - To ensure market participants' operational readiness, it is preferable to begin the practice during calm times, and address any potential issues then. The introduction of the TMPG fails charge in the US has been generally well-received by market participants, but it took several months to iron out initial glitches.
  - Relatedly, turning the fail fee on and off introduces "toggle risk": Stopping and restarting the practice risks the loss of participants' "muscle memory", and introduces uncertainty in the marketplace.

Q&A – Fail fee

- Is the goal of the fail fee to eliminate fails?
  - The fail fee is intended to preserve an economic incentive to deliver securities around the effective lower bound, not to eliminate fails.
  - While a fail fee helps to encourage efficient settlement practices, separate work (by the Complementary Policies Working Group) is underway to identify potential operational frictions in the GoC market and ways to address them.

- In the trial period, why has the fee been lowered to 25bps from the 50bps permanent floor in the calibration? Why is the dynamic component turned off?
  - The 50bps permanent floor has been calibrated to where the GoC market has been during the past five years in terms of specialness, and to enable collateral markets to find a clearing price by lifting the cap on specialness.
  - Initially lowering the fee to 25bps would allow the Canadian marketplace to become accustomed to the fee exchange and allay concerns about potential unintended consequences related to the fee's introduction.
  - The dynamic component is off during the trial period to keep the environment predictable, be able to iron out glitches, and to not complicate payment exchange. The trial period can also be used to gather further data on the appropriateness of the triggers for the dynamic component.

Q&A – Fail fee

- For how long would the 25bp introductory fee be in effect? Could it be changed if there are issues with market functioning?
  - The 25bp fee would be in effect until the dynamic component of the framework is triggered. We note that the dynamic component would *not* have been triggered during the 5-year period we used for the preliminary calibration of the framework's parameters, so the fee could conceivably remain at 25bps for some time.
  - However, the calibration of the framework cannot take into account all possible eventualities. Should there be issues with market functioning, the framework's Governance Group could change the level of the fail fee.
  - The timeline below shows how fail fee parameters would adjust during the transition from the trial period to permanent activation of the fail fee

Fail fee	**25bps**	**25bps**	**25bps**	**150bps – BoC Target**	**50bps**
Dynamic component	**Off**	**Off**	**Armed**	**Activated**	**Armed**
CDS invoice	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Payment exchange	**No**	**Yes**	**Yes**	**Yes**	**Yes**

0 – Potential issues monitored and resolved

6m – Continued monitoring and resolving of potential issues

18m – If kept active fail fee, dynamic component is enabled

Major review, with decision point on whether to keep active

18m + x – Fail rate breaches trigger at or near the ELB

18m + y – Fails subside, BoC raises rates to 100bps

Q&A – Fail fee

- Will the 25bp fee create incentives to "extract" a fail fee?
  - A fail fee in and of itself does not encourage hoarding, but restores the opportunity cost of failing. The fee facilitates special repos trading below the current soft floor of 0%.
  - Hoarding can happen in the absence of a fail fee, e.g., when interest rates are high and hoarders could attempt to extract a sizeable special spread.
  - Existing rules (such as IIROC DMR 2800: Trading in Wholesale Domestic Debt Markets) already prohibit manipulative practices, such as "artificially increase or decrease trading prices", or "abusing market procedures or conventions to obtain an unfair advantage". The IIROC rule applies directly to dealers and indirect auction participants, and is also intended as a code of conduct for other market participants.

Q&A – other features

❖ Have you considered any other features for the fail fee component?

– The table below lists other features that were considered, but not adopted

Feature	Description	Assessment
EU-style static fee	• De-minimis static floor	• Does not provide much “insurance” in a stressed environment
Multi-level static fee	• A baseline static fee that gets ratcheted up or down with changing market conditions	• Requires substantial up-front governance on the ratchet mechanism • Frequent adjustments operationally cumbersome
US-style dynamic fee	• Fee adjusts with overnight rate, providing a 3% minimum total incentive to settle	• 3% may not be the right amount in Canadian context; dynamic nature necessitates more frequent updates
Grace period	• Fail fee could be applied only after a transaction fails to settle for multiple days • Avoids taxing operational fails	• In cash market, fails beyond one day are more common, so exempting 1-day fails provides only limited relief • Complicates the calculations for a limited benefit
“Name-and-shame”	• Governance group monitors fails and provides a list of “failing entities”	• Raises confidentiality concerns for both the monitoring of entities and the dissemination of a list

3b. GMF mandate and background

GMF mandate and background

- ❖ CFIF approved in October in 2019 the formation of a working group to review GoC market functioning in a low-rate environment
- ❖ The Government of Canada Market Functioning Steering Group (GMF) was formed in 2020, with the following agreed mandate:
  - – Study and design a framework for supporting GoC market functioning in a low-rate environment (**Design Phase**) and present design recommendations to CFIF
    - **Framework** to include a financial incentive mechanism for timely settlement applicable to all market participants, criteria for implementing/activating the framework
    - **Complementary policies or market practice changes** that seek to improve market functioning and mitigate any potential unintended consequences
  - – Pending endorsement and further direction from CFIF, take steps to implement the framework (**Implementation Phase**)