

Collateral Application - RFA

Background Information

1. Who is the interested party for this collateral application?
2. RFA is a Canadian financial services platform founded in 1996 by a team of seasoned real estate and finance professionals. Beginning as an early pioneer and controlling investor in Canadian Commercial Mortgage-Backed Securities (CMBS), over the last 25 years RFA has grown into a robust group of real-estate focused lending and operating platforms (both debt and equity) through strong capital relationships and persistent innovation in transaction structuring and acquisitions. The company has been involved in more than \$20B in commercial real estate deals with institutional capital across Canada, and its residential mortgage origination operation has over \$25B of mortgages under administration. In 2019, RFA acquired a Schedule I Canadian Bank. As of May 2022, RFA directly employs around 170 Canadians across three primary offices in Toronto, Calgary and Vancouver; across platforms that RFA and its investors own or control, the employee count is over 5,000.
3. Provide a brief high-level overview of the project, with a focus on the applying collateral token.
4. RFA is requesting a \$95M Dai Maker Vault to fund the senior secured (A) tranche of a \$100M 1yr RMBS debt facility.
5. RFA will retain the entirety of the \$5M Dai junior tranche (B) of the debt facility.
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7. RFA's intent is to launch a token-based securitization using the Centrifuge protocol with an initial pool of single-family Canadian mortgages ("1yr RMBS"), split into a senior tranche (A) and junior tranche (B), where the senior tranche will make up 95% (\$95M Dai) of the debt facility, and the junior tranche will make up 5% (\$5M Dai) of the debt facility.
8. We anticipate the average rate on the pool of loans to be between ~5-6% dependent on timing of pool allocation.
9. A tranche to MakerDAO to carry a yield of approximately ~3-4% (dependent on market conditions at the time)
10. B tranche to RFA to carry a yield of approximately ~12-15% (dependent on market conditions at the time)
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14. The facility will contain approximately 275 fixed-rate, first-lien residential mortgage loans. Each loan is secured by a first mortgage or hypothec on the mortgagor's fee simple residential real property in Canada.
15. All mortgages in the pool will be underwritten in accordance with Guideline [B-20](#), Canada's residential underwriting standard set by its federal banking regulator, OSFI. All residential mortgages held on the balance sheets of federally regulated banks are required to be B-20 compliant.
16. The loss rate for this category of mortgages in Canada has never exceeded the 5% buffer of the junior tranche. Even during the 2008 Global Financial Crisis this category in Canada performed with limited losses.
17. Weighted Average Life is approximately 12 months
18. Average Credit Score is approximately 685
19. Average Loan Size is approximately \$350,000 USD
20. Average total debt service ratio (TDS) is 45%
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27. Dwelling Exposure (approximates):
28. Condominium: 10%
29. Rental: 10%
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34. Geographic Exposure (approximates):
35. Ontario – 65%
36. British Columbia – 25%
37. Alberta – 7%
38. Other – 3% (Nova Scotia, Saskatchewan, Manitoba, Newfoundland and Labrador)
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43. RFA Origination Pipeline:
44. Over \$1 billion of this product (1 year RMBS) annually and can significantly scale if appetite exists for this funding channel.
45. Originate approximately \$4 billion annually in both insured and uninsured 5 year residential mortgages (5 year RMBS)
46. RFA hopes to expand in the future with pools ranging in different sizes, duration and asset classes.
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50. How long has the project been live in production?
51. RFA was founded in 1996 and the residential mortgage lending platforms (launched and acquired) have been originating residential mortgage loans since late 2007.
52. Provide a brief history of the project.
53. RFA has consistently shown itself to be a professional and ethical actor over its 30-year history, and has a fantastic reputation across Canada and the US for conducting itself in such a way.
54. RFA's ownership structure is as a private group of companies, owned and operated by a relatively small group of investors and operators who have been working together for several decades.
55. The 2019 acquisition of its Banking platform—a rarity in Canada—has only increased RFA's focus on governance to satisfy stakeholders across its board, investors, and various regulators. Governance and the security of customer deposits are the federal banking regulator's two top priorities for Schedule I Banks in Canada ([OSFI website with list of Regulated Banks](#)). Because RFA as a group shares a name with the Bank, it is held to the highest standards. As a company, RFA invests a significant amount of resources (both human and monetary) into these areas.
56. RFA has been involved in asset backed commercial paper both as an investor and originator for decades; RFA views innovation on new rails of Web3 and DeFi can help pave the path for the rest of traditional finance to a more efficient securitization model for real world assets.
57. Link the whitepaper, documentation portals, and source code for the system(s) that interact with the proposed collateral, and all relevant Ethereum addresses. If the system is complex, schematic(s) are especially appreciated.

58. RFA's Mainnet deployment will be accessible via tinlake.centrifuge.io
59. Technical documentation about Tinlake can be found here: [GitHub - centrifuge/tinlake: bringing individual, non-fungible assets to DeFi](https://github.com/centrifuge/tinlake)

Asset Information

1. What type of asset is it? (e.g. store of value, currency, commodity, capital asset, governance token etc.)
2. Single family Canadian Residential Mortgages
3. How is the asset used and does it give any rights to holders? (e.g. financial claims, dividends, governance rights)
4. The asset is a full recourse loan on the Canadian Residential properties.
5. If a Canadian lender forecloses on a home with negative equity, it can file a deficiency judgment against the borrower, which allows it to attach the borrower's other assets and even take legal action to garnish the borrower's future wages. In the United States, it has a mix of recourse and non-recourse laws that vary by state, but even in recourse states, the use of deficiency judgments to attach assets and garnish wages is infrequent. The full recourse feature of Canadian mortgages results in more responsible borrowing, fewer delinquencies, and significantly fewer foreclosures than in the United States.
6. What is the market cap for the asset?
7. In the third quarter of 2021, the total value of mortgage debt outstanding in Canada amounted to nearly [1.55 trillion Canadian dollars](#).
8. Where does exchange for the asset occur? Provide exchange data on market liquidity, volume and order book depth.
9. As of March 2022 the Canadian RMBS and MBS market was over 500 billion CAD: https://content.ftserussell.com/sites/default/files/benchmarking_the_canadian_mortgage-backed_securities_market_final_v3.pdf
10. Is the asset settled on chain (trustless) or off chain (trusted)?
11. The loans will be brought on-chain in the form of RWAs and securitized through the Centrifuge protocol. Investments in the security are settled on-chain. We will adhere to the best practices applied both technically and legally to RWAs with guidance from both MakerDAO and Centrifuge.
12. If offchain (trusted) settlement: describe what are the involved entities, process and estimated time.
13. N/A
14. List any possible oracle data sources for the proposed collateral type.
15. N/A
16. List any parties interested in taking part in liquidations for the proposed collateral type.
17. Our vision is to work with MakerDAO to establish a long-term liquidity solution for this asset class. After completing this first transaction, we plan to work with and leverage the balance sheets of the larger banks in Canada to provide a liquidity backstop, if and when MakerDAO requires the need to move into "cash". These loans are already bought and sold by the major banks in Canada on a regular basis, providing a deep pool of liquidity. By establishing sensible deal economics for a "liquidity put", we believe these banks wouldn't hesitate to buy these assets when needed. We see this as a huge win for scaling, but also in allowing MakerDAO to work with longer duration assets, and perhaps most importantly familiarizing and onboarding additional legacy financial institutions as partners.
18. This asset in TradFi is extremely liquid and the ability to move in and out of positions combined with the derivative markets for hedging requirements shows that there is sufficient demand to replicate these structures onchain.

Business Questions

1. What is/are the expected use case(s) of the Dai generated by the vault?
2. Working with MakerDAO to establish a Dai facility will provide RFA an alternative source of liquidity to enable an expansion of RFA's mortgage origination business in Canada.
3. By accessing funding at a competitive cost of capital, RFA is able to achieve two major goals:
4. Passing on a more advantageous rate directly to the Canadians end customers of the mortgage loans.
5. Provide a wider array of services and products to the Canadian housing market.

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7. Provide a wider array of services and products to the Canadian housing market.
8. Allow RFA to compete with larger Tier 1 banks by leveraging the MakerDAO partnership to enable improved cost and efficiency
9. What is the amount of Dai expected to be generated against the collateral and what is the timeline? Is there a commitment on a minimum amount of Dai to be generated?
10. Initial tranche is proposed to be a \$100M pool where MakerDAO would participate in \$95M Dai and RFA would provide the first loss \$5M.
11. The timeline is approximately 12 months (duration of the asset) and RFA commits to use all \$95M Dai immediately upon availability.
12. What are the strategic benefits for MakerDAO in onboarding the collateral?
13. From the beginning of our conversations, we've been encouraged by what we believe is clear alignment:
14. MakerDAO wants to diversify Dai's collateral base and increase Dai usage around the globe;
15. MarkerDAO wants to diversify its regulatory and geographical concentration.
16. RFA wants to diversify its funding and liquidity with a new capital provider with scale;
17. Real estate is one of the largest asset classes in the world;
18. Canada is a preeminent Western democratic economy with a stable rule of law;
19. RFA is an institutional group regulated at provincial and now federal levels with its banking license;
20. MakerDAO can therefore issue Dai at scale in one of the largest asset classes in the world, in one of the safest countries in the world, with an institutional, highly regulated entity;
21. RFA gets access to new and flexible capital to continue to grow and innovate financial services on Web3 rails.
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30. For this partnership to really make sense for RFA, we envision this relationship reaching north of a billion dollars over time—and we can scale that up as fast as the community is willing to go.
31. Why is RFA coming into DeFi?
32. The regulated banking industry in Canada is fundamentally an oligopoly of 6 major banks ("the big 6") with a long tail of roughly 30 more (there are only ~35 federally regulated Schedule 1 Banks in all of Canada, compared to thousands in the U.S.). After RFA acquired its license in 2019 the group began to strategize how we could truly compete in Canada. On the one hand, RFA lacks the scale of large Canadian players; but on the other, RFA has always punched above its weight through smart structuring, deep capital relationships, a first principles approach and trying to always develop strategic, capital, and technological advantages that allow us to compete.
33. But the reality is that access to cheaper capital is the most important element to scaling a Bank efficiently to profitability. Our cost of capital is much higher to what our large competitors can achieve through customer deposits and significant scale. We also still rely on the big 6—leveraging their deposit boards for funding and leveraging their capital markets groups to acquire our originated assets for liquidity. Depending on those you're trying to disrupt is not a sustainable strategy, and so we continually look elsewhere for structural advantages.
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Legal Questions

1. What are the legal risks associated with the tokens?

We intend to use a structure that will substantially eliminate legal risks for MakerDAO such as the trust arrangement discussed [here](#), [here](#) and [here](#). The final details of the legal structure will be shared with MakerDAO and with counsel to MakerDAO at a later stage.

Existing known details of the transaction structure are provided below:

- Full Recourse Loan: If a Canadian lender forecloses on a home with negative equity, it can file a deficiency judgment against the borrower, which allows it to attach the borrower's other assets and even take legal action to garnish the borrower's future wages.
- The initial as well as any subsequent asset transfers from RFA to the securitization SPV will be implemented via a "true sale" transaction documented in a Sales and Purchase Agreement (the "SPA"). The SPA will include, amongst others, representations and warranties by RFA (e.g. title, capacity, validity of claim, etc.) with regards to the underlying assets.
- The securitization SPV will own the underlying loans.
- The SPV will enter into a service agreement with Centrifuge to get support from Centrifuge while using its open and decentralized infrastructure.
- The SPV will tokenize the underlying loans into NFTs and will add those NFTs to Tinlake as collateral.
- The SPV will utilize Tinlake to issue DROP and TIN backed by the pool of NFTs that are locked in Tinlake.
- MakerDAO and RFA will purchase the DROP and TIN tokens (Senior and Junior, respectively)
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- (Optional) Does one organization bear legal responsibility for the collateral? What jurisdiction does that organization reside in?
- (Optional) Has your project obtained any legal opinions or memoranda regarding the regulatory standing of the token or an explanation of the same from the perspective of any jurisdiction? If so, those materials should be provided for community review.
- (Optional) Describe whether there are any regulatory registrations for the token and provide related documentation (including an explanation of any past or existing interactions with any regulatory authorities, regardless of jurisdiction), if applicable.
- Is issuance of the asset decentralized (trustless) or centralized (trusted)? 21.a. If centralized/trusted: by which legal entity, type of entity and jurisdiction?
- The legal entity will be RFA and the jurisdiction will be Canada.

Technical Questions

This MIP6 proposes to utilize the [MIP21](#) and [MIP22](#) collateral integration process, as previously used by other issuers via Centrifuge.

1. Link any available audits of the project. Both procedural and smart contract focused audits.
2. Centrifuge has conducted several audits of its technology stack, and they can be found [here](#). MakerDAO PECU and OCU have previously performed assessments of various MIP22 collateral implementations, such as [here](#) and [here](#).
3. Has the token (and/or supporting protocol) been formally verified?
4. No, the Centrifuge protocol has not been formally verified.
5. Does the asset follow a token standard? (E.g. ERC20, ERC721, ERC1400)
6. Yes, the underlying tokens in the Tinlake application use the ERC20 standard.
7. Is the asset, or asset balances, controlled by a central actor, or group of actors (e.g. through a multisig, or DAO)?
8. No, the tokens are issued through the Tinlake Pools smart contracts.
9. Does the token have whitelist or blacklist functions? If so, what is the process for utilization and what stakeholders are involved?
10. Tinlake pool investors must be whitelisted, which is facilitated through the KYC process, detailed [here](#).
11. Can the token implementation be upgraded/changed? If so, what is the process and what stakeholders are involved?
12. Tinlake Pools are not upgradable and require a new deployment to change.
13. Does the token contain rebasing logic?
14. Tranche tokens are allocated based on investments/redemptions into a Tinlake pool and determined by the pool's on-chain epoch and solver mechanism.

The following questions apply to RWA collateral onboarding applications only:

1. Provide (a) proposed legal structure for transaction, including: type of legal entities, (offshore/onshore, form (trust, corporate, other)) and jurisdiction(s) of legal entities, and (b) likely funds flow (Dai => Fiat => Dai).

Please see response above to Question 17.

1. Provide details on the organizational structure of the interested party, beneficial ownership, governance/control, key personnel, capital/funding resources and past financial performance.
2. RFA is a large private group of companies operating across the real estate landscape within Canada. We will provide a detailed overview during due diligence with the Core Unit. However, in the interim you can find an up to date financial snapshot of our Schedule I bank, RFA on our regulators website as it's publicly available and updated regularly.
3. [Financial Data for Banks](#)
4. [Financial Data for Banks](#)
5. Provide detailed summary of the proposed economic terms of the transaction, including, without limitation: commitment term, principal amount, interest rate, frequency of principal and interest payments, disbursement schedule, equity amount, funding ratios (equity/debt pro rata, equity first, etc.), collateral security, coverage ratios, currency (if not Dai) and other material terms. The quality of the proposed economic terms will be a consideration for the prioritization process.

This is for guidance purposes as specifics will depend on market dynamics at time of pricing.

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1. Identify in reasonable detail the risks associated with this collateral application and the underlying asset(s) and proposed mitigants (if any). The risk summary should address, without limitation and to the extent relevant: market risks, commercial risks (e.g., diversification, credit, etc.), interest rate risks, legal and regulatory risks, general industry risks, competition, etc.
2. The loss rate for this category of mortgages in Canada has never come close to exceeding the 5% buffer that is provided through RFA purchasing the first loss piece of this pool, including the 2008 global financial crisis.
3. [Why didn't Canada have a banking crisis in 2008 \(or in 1930, or 1907, or ...\)?](#)

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5. This is a very standard asset class with limited risks to all parties and we believe as close to zero risk as possible for the senior tranche that MakerDAO will hold.
6. [

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1. Outline the applicant's underwriting guidelines/policies, origination strategy (marketing, sales, channels), servicing strategy (charge-offs, collections), and historical asset performance.
2. All mortgages in this pool will be written to our federal regulator guidelines for mortgages that can be held on Schedule 1 Bank balance sheets in Canada.
3. [B-20 guidelines](#)
4. [B-20 guidelines](#)
5. We partner with the largest mortgage servicing company in Canada, who has over 130b in AUM that they service.
6. In the last 3 years we have had zero defaults that led to a loss and currently our book has less than 0.10% in 30 days arrears.
7. Outline the applicant's risk monitoring and operations guidelines/policies (e.g., charge-offs, collection, recovery provisions, data collection and technology, etc).
8. Our risk department is within our federally regulated institution and is in real time monitoring our assets on our balance sheet and our current originations.
9. Below is a list of metrics we are required to report on, and the frequency of these reports [Reporting Requirements for Deposit-Taking Institutions](#)
10. The intention is to work with Centrifuge to develop a dashboard with updated analytics of the loan portfolio.
11. Describe the regulatory regime applicable to the underlying asset (if any) and the applicant's legal and compliance program relating thereto.
12. RFA is regulated through both provincial and federal regulators to the highest standard in Canada.
13. Residential mortgages are the largest asset class in Canada and are thus regulated to the highest degree, as their potential impact on the economy and stability of Canada is high.
14. Identify any 3rd party persons likely to be relied upon by the applicant to implement the transaction (legal, accounting, servicers, trustees, etc.).
15. We will leverage the support of the Centrifuge team and their protocol along with our legal counsel and accounting partners.
16. Other third parties such as trustee, verification agent, conversion agent will be defined later in the process.