Basel Committee
on Banking Supervision

Regulatory Consistency Assessment Programme (RCAP)

Assessment of Basel NSFR regulations – Canada

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BANK FOR INTERNATIONAL SETTLEMENTS

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Contents

Glossary

ASF	Available stable funding
BA	Banker Acceptance
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
C	Compliant (grade)
CAD	Canadian dollars
CCP	Central counterparty
CMB	Canada Mortgage Bond
CMHC	Canada Mortgage and Housing Corporation
D-SIB	Domestic systemically important bank
FAQs	Frequently asked questions
G-SIB	Global systemically important bank
HQLA	High-quality liquid assets
LAR	Liquidity Adequacy Requirements
LC	Largely compliant (grade)
LCR	Liquidity Coverage Ratio
MDB	Multilateral development banks
MNC	Materially non-compliant (grade)
NC	Non-compliant (grade)
NDB	National Development Bank
NHA MBS	National Housing Act Mortgage Backed Securities
NSFR	Net Stable Funding Ratio
OSFI	Office of the Superintendent of Financial Institutions
PSE	Public Sector Entity
RCAP	Regulatory Consistency Assessment Programme
RSF	Required Stable Funding
SFT	Secured financing transaction
SIG	Supervision and Implementation Group
VM	Variation margin

Preface

The Basel Committee on Banking Supervision (Basel Committee) places a high priority on the implementation of regulatory standards underpinning the Basel III framework. The prudential benefits from adopting Basel standards can only fully accrue if these are implemented fully, consistently and in a timely manner by all member jurisdictions. The Committee established the Regulatory Consistency Assessment Programme (RCAP) to monitor, assess and evaluate its members' implementation of the Basel framework.

This report presents the findings of an RCAP Assessment Team on the domestic adoption of the Basel Net Stable Funding Ratio (NSFR) in Canada. The assessment focused on the completeness and consistency of the domestic regulations published on 11 April 2019 and effective on 1 January 2020,[1] as applied to commercial banks in Canada, with the Basel NSFR. Issues related to prudential outcomes, the resilience of the banking system or the supervisory effectiveness of the Canadian authorities were not in the scope of this assessment. The assessment relied on regulations, other information and explanations provided by the Canadian authorities and ultimately reflects the view of the Basel Committee.

The RCAP Assessment Team was led by Ms Kerstin af Jochnick, First Deputy Governor of the Riksbank, Sweden. It comprised four technical experts, from Australia, European Union, United Kingdom, and the Basel Committee Secretariat (see Annex 1). The main counterpart for the assessment was the Office of the Superintendent of Financial Institutions (OSFI), Canada. The work was coordinated by the Basel Committee Secretariat with support from staff from the Riksbank, Sweden.

The assessment began in the middle of 2018 and comprised three phases: (i) a self-assessment by the Canadian authorities (September to November 2018); (ii) an assessment phase (November 2018 to April 2019), including an on-site assessment involving discussions with the Canadian authorities and representatives from the Canadian banks; and (iii) a review phase (April to June 2019), including a technical review of the Assessment Team's findings by a separate RCAP Review Team, the Committee's Supervision and Implementation Group, the RCAP Peer Review Board and the Basel Committee. More information on the RCAP assessment process is available on the Committee's website.[2]

The RCAP Assessment Team acknowledges the cooperation received from OSFI counterparts throughout the assessment process. In particular, the team thanks the staff of OSFI for playing an instrumental role in coordinating the assessment exercise.

[1] Except NSFR disclosure requirement, which would be effective on 1 January 2021.

[2] See www.bis.org/OSFIs/implementation.htm.

Executive summary

In Canada, the NSFR applies to all domestic systemically important banks (D-SIBs). The NSFR requirements were implemented by way of revisions to Chapters 1 and 3 of OSFI's Liquidity Adequacy Requirements (LAR) Guideline issued on 11 April 2019. Chapter 1 of the LAR Guideline provides that the requirements become binding on banks from 1 January 2020. The NSFR disclosure requirements were implemented by way of a separate Guideline also issued on 11 April 2019. This Guideline provides that the requirements become binding on banks from 1 January 2021.

Overall, as of 15 April 2019, the NSFR regulations in Canada are assessed as compliant with the Basel NSFR. This is the highest possible grade. The components of the NSFR standards for scope, minimum requirement and application issues, available stable funding (ASF), and the NSFR disclosure requirements are assessed as compliant while the other component, ie required stable funding (RSF), is assessed as largely compliant.

The Assessment Team identified one potentially material deviation from the Basel NSFR. This relates to bankers acceptances (BAs),[3] which benefit under Canadian regulations from a higher ASF factor than that determined in the Basel framework. This finding is raised as an issue for follow-up RCAP assessments (Annex 6). A few other deviations were also found but were all assessed as non-material.

[3] A banker's acceptance (BA) is a type of indirect funding for a bank. BAs are the second largest money market instrument in Canada, after Government of Canada treasury bills.

Response from OSFI

OSFI wishes to acknowledge the professional and open manner with which the RCAP Assessment Team conducted the process. We want to express our sincere thanks to Ms Kerstin af Jochnick and to all the members of the Assessment Team and the Secretariat for their integrity and expertise. All of this led to very productive discussions and reflections on the implementation of the NSFR standard into the Canadian Liquidity Framework.

OSFI welcomes and shares the assessment that the implementation of the NSFR is overall compliant with the Basel NSFR standard. We also agree with the assessment of the individual components, including the assessment of the Required Stable Funding component as largely compliant given the non-material adjustments we incorporated to select RSF factors to ensure the continued well-functioning of certain Canadian financial markets. This reflects our decisions to incorporate the Basel NSFR standard in substance into our domestic Liquidity Adequacy Requirements (LAR) Guideline.

We fully support the RCAP process, which strives to foster a consistent implementation of Basel standards across jurisdictions, and we remain committed to cooperating and participating in future RCAP assessments.

1 Assessment context

1.1 Status of implementation of the Net Stable Funding Ratio

The Canadian NSFR rule and NSFR disclosure requirements were issued for public consultation in December 2018 and February 2019, respectively. OSFI issued the final Canadian NSFR rule and NSFR disclosure requirements in April 2019.

Upon implementation in January 2020, the NSFR will be applicable to all Canadian D-SIBs, which covers all existing Canadian internationally active banks on a consolidated basis. The NSFR disclosure requirements will also be applied to all Canadian D-SIBs as of January 2021.

1.2 Regulatory system

OSFI was established as the sole prudential regulator in Canada under the Office of the Superintendent of Financial Institutions Act (OSFI Act) on 2 July 1987. This grants OSFI the power to issue guidance in the form of Guidelines, Advisories and public letters. These documents are used to establish policy on minimum, best or prudent practices and to set out OSFI's expectations and requirements for banks.

OSFI is an independent government agency, funded by levies on the institutions that it regulates. It reports to Parliament through the Minister of Finance. OSFI is responsible for banking regulation and supervision. The Bank of Canada, Canada Deposit Insurance Corporation, and the Department of Finance each have complementary responsibilities for financial stability.

1.3 Structure of the banking sector

In September 2018, 72 banks were operating in Canada, with assets and off-balance sheet exposures of around CAD 6.0 trillion. The financial system is dominated by the six largest banks, one of which has been designated as a G-SIB and the others as D-SIBs. These banks comprise more than 90% of the exposures of the Canadian banking system and all of the exposures of the internationally active banks in Canada. The RCAP Assessment Team focused on these banks in evaluating the materiality of its findings.

The D-SIB's draw about half of their total funding from wholesale sources and, as of end-2016, 75% of this wholesale funding is in foreign currencies.[4] For detailed information on the funding structure of the G-SIB and D-SIB banks, please see Annex 3 of this report.

1.4 Scope of the assessment

The Assessment Team considered the NSFR requirements applicable to Canadian D-SIBs, published on 11 April 2019 and effective on 1 January 2020. The assessment had two dimensions:

- a comparison of domestic regulations with the Basel NSFR standard to ascertain that all the required provisions have been adopted (*completeness* of the regulations); and
- whether there are any differences in substance between the domestic regulations and the Basel NSFR standard and, if so, their significance (*consistency* of the regulations).

In its assessment, the RCAP Assessment Team considered all binding documents that effectively implement the Basel NSFR standard in Canada. Annex 2 lists the Basel standards used as the basis for the

[4] M Truno, A Stolyarov, D Auger and M Assaf, "Wholesale funding of the big six Canadian banks", *Bank of Canada Review*, Spring 2017.

assessment. The Assessment Team also discussed the binding nature of the guidelines with OSFI and the sample banks and it was clear that the guidelines have a binding nature, despite the use of the terminology guideline, which in other jurisdictions would not necessarily be interpreted as such. Note that the assessment did not evaluate the adequacy of liquidity or the resilience of the banking system in Canada or the supervisory effectiveness of OSFI.

As set out in the RCAP methodology, the Assessment Team evaluated the materiality and potential materiality of identified deviations between the Basel NSFR standard and the local regulations. The quantification was limited to a sample of banks. In addition, the Assessment Team reviewed the non-quantifiable aspects of identified deviations and applied expert judgment as to whether the domestic regulations meet the Basel framework in letter and in spirit. The materiality analysis is summarised in Annex 4, which also lists the sample of banks.

The outcome of the assessment is summarised using a four-grade scale, both at the level of each of the four key components of the Basel NSFR framework and the overall assessment of compliance. The four grades are: compliant, largely compliant, materially non-compliant and non-compliant.

2 Assessment findings

2.1 Assessment grades and summary of findings

Overall, the Assessment Team finds the implementation of the NSFR in Canada to be compliant with the Basel standards. This grade is based on the materiality assessment (summarised in Annex 4) and takes into account the rectifications issued by OSFI described in Annex 5.

Assessment grades

Table 1

Component of the Basel NSFR framework	Grade
Overall grade	C
Scope, minimum requirement and application issues	C
Available stable funding (numerator)	C
Required stable funding (denominator)	LC
NSFR disclosure requirements	C

Assessment scale: C (compliant), LC (largely compliant), MNC (materially non-compliant) and NC (non-compliant).

2.1.1 Scope, minimum requirement and application issues

The OSFI regulation on the scope, minimum requirement and applications issues is compliant with the Basel standard. No findings were identified.

The Assessment Team noted as an observation a two-year delay in the implementation of the NSFR regulation by Canada.

2.1.2 Available stable funding

The OSFI regulation on the available stable funding is compliant with the Basel standard. Two findings were identified.

For the purposes of determining the maturity of callable liabilities at the institution's discretion, the Basel NSFR text stipulates that, in the case of market expectations for early redemption of funding, banks should consider the date of exercise of the option as the maturity date for the purposes of including the liabilities in the corresponding ASF category. The Assessment Team considers that the OSFI NSFR guidance does not envisage this approach for all cases where there are market expectations for an early redemption of funding. This deviation is considered as non-material.

OSFI's NSFR rules envisage a specific category of liabilities, "Stamped bankers' acceptances" (BA), as subject to a 35% ASF factor. However, according to the Basel NSFR rules, the Assessment Team considers that a 0% ASF factor, rather than 35%, should be applied to these liabilities, given that the ultimate counterparty holding the instrument after issuance and until its maturity cannot be determined. This deviation is considered as potentially material.

2.1.3 Required stable funding

The OSFI regulation on the required stable funding is largely compliant with the Basel standard. Four non-material findings were identified. The Assessment Team also identified two observations.

In derivatives transactions, the Basel NSFR standard permits offsetting of collateral received in contracts with the positive replacement cost amount of a derivative provided that the collateral is received in the form of cash variation margin. In addition to cash, the OSFI NSFR regulation also permits offsetting by collateral received as Level 1 High-Quality Liquid Assets (HQLA).

The OSFI NSFR regulation assigns lower RSF factors to some assets compared to the Basel NSFR standard, specifically related to holdings of Level 1 HQLA and to secured loans with financial institutions with a maturity of less than six months.

2.1.4 Disclosure requirements

The OSFI regulation on the disclosure requirements is compliant with the Basel standard.

The Assessment Team observes that, while Basel standards envisage that the NSFR disclosure requirements will come into effect by no later than 1 January 2018, there has been a delay in implementation of Canadian regulations on NSFR disclosure such that these will be effective beginning January 2021.

2.2 Detailed assessment findings

2.2.1 Available stable funding

Section grade	**Compliant**
Basel paragraph number	18: Determination of the maturity of liabilities in case of an early redemption option exercisable at the bank's discretion
Reference in the domestic regulation	Paragraph 12, LAR Chapter 3– NSFR guideline
Finding	In determining the maturity of liabilities, where there are callable options at the bank's discretion, the Basel NSFR rules assume the exercise of the option if there are market expectations for an early redemption. OSFI NSFR rules indicate that, in the case of options exercisable at the institution's discretion for an early redemption of liabilities, institutions are expected to reflect the exercise of such call options if the expected market conditions and other factors are favourable to the exercise of the call option. The Basel NSFR rules assume the exercise of the option, in the context of market expectation for this outcome, whether or not the conditions are favourable for the institution (eg potential higher refunding costs or detrimental for the NSFR value). As a consequence, the Assessment Team considers that the application of the OSFI NSFR rules might lead to situations where, contrary to the Basel standards, the calling

	of the option will not be expected to occur, leading to a longer residual maturity for the liabilities and a higher ASF factor, as compared with the Basel NSFR standards.
Materiality	Non-material
Basel paragraph number	25: Liabilities receiving a 0% ASF factor
Reference in the domestic regulation	Paragraph 22, LAR Chapter 3 – NSFR guideline
Finding	In the Basel NSFR rules, liabilities with non-financial corporates with a residual maturity of less than six months receive a 50% ASF factor. Other liabilities, eg those with financial institutions with a residual maturity of less than six months or those where the counterparty cannot be determined and with a residual maturity of less than six months, receive a 0% ASF. OSFI NSFR rules envisage an ASF category not included in the Basel NSFR rules, known as "liabilities receiving a 35% ASF factor". This category captures stamped BA liabilities issued by an institution with a residual maturity of less than six months. They receive a 35% ASF factor, regardless of the BA's beneficial owner in the secondary market. Stamped BAs are a direct and unconditional order from a corporate borrower (client) to draw down against its established line of credit (called a "BA facility") at a Canadian bank. Once the drawdown occurs, the accepting (or lending) bank guarantees the principal and interest on the BA by "stamping the paper" (with electronic settlement), thus becoming fully liable for the payment upon maturity in case of non-payment by the underlying corporate borrower. Stamped BAs are transferable in the secondary market. Only the name of the accepting bank is disclosed. The holder of the BAs can be identified at primary issuance only, ie it cannot be determined by the bank during the rest of the BA's lifetime. However, given the very short nature of the liability (see below) the original BA buyer is the beneficial owner at maturity in the majority of cases, which has been confirmed anecdotally with market practitioners and by the Bank of Canada's analysis of BA trading data using the Investment Industry Regulatory Organization of Canada's Market Trade Reporting System. While the distribution of the investor base is heterogeneous across banks, the proportion of non-FI counterparties at issuance is, on average, 47%. In some banks this proportion does not exceed 25%. For the accepting bank, stamped BAs ultimately constitute an obligation or a promise to pay a certain amount at maturity to the beneficial owner in the secondary market at that date. Once the accepting bank pays the holder, it will look to the borrower for reimbursement in a simultaneous transfer of funds. BAs are unsecured non-deposit liabilities maturing of less than three months at issuance in almost 100% of the cases and of less than one month in 90% of the cases. The BA market is a core funding market in Canada. BAs provide a key source of funding for small and medium-sized corporate borrowers that do not otherwise have direct access to the primary funding market because of their size and credit ratings. More recently, BAs have also become an increasingly important funding source for large corporate borrowers because of credit rating downgrades in certain sectors and industry consolidation. BAs account for the greatest portion of money market instruments issued by non-government entities and are the second largest money market instrument overall in Canada, after Government of Canada securities. For investors, BAs provide a source of short-term income and liquidity because of their relatively attractive yield, liquidity and credit ratings. The BA market in Canada is also important to the pricing of many financial instruments in Canada The Assessment Team considers that liabilities in the form of transferable instruments where the holder cannot be determined is not unique to Canada. The Assessment Team considers that the treatment for BAs should be the same as for any securities issued by banks where the holder cannot be determined, which indeed might be the case for other transferable securities predominant and with systemic importance in the financial system of other jurisdictions. The category envisaged in the OSFI NSFR rules as "liabilities receiving a 35% ASF factor" precisely falls under the category of liabilities of less than six months where the counterparty cannot be determined. Therefore a 0% ASF factor would apply to these

	liabilities following the Basel NSFR rules, rather than a 35% factor as established in the OSFI rules. A different calibration approach for the ASF factor for these products such as a framework based on an estimate of potential counterparties based on the existing holders at the moment of the issuance, is not in line with the Basel NSFR rules. The Assessment Team views this as a potentially material deviation.
Materiality	Potentially material given that the report published by the Bank of Canada[5] indicates the growing trend in the outstanding amount of CAD-denominated BAs since 1964, most recently from around CAD 50 billion in 2010 to about CAD 80 billion at present. In this light, we see the deviation as potentially material in the near term.

2.2.2 Required stable funding

Section grade	**Largely compliant**
Basel paragraph number	35: Calculation of derivative asset amounts
Reference in the domestic regulation	Paragraph 41, LAR Chapter 3 – NSFR guideline
Finding	According to the Basel NSFR standard, for the purpose of calculating NSFR derivative assets, collateral received in connection with derivative contracts may not offset the positive replacement cost amount, whether or not netting is permitted under the bank's operative accounting or risk-based framework, unless it is received in the form of cash variation margin (VM) and meets the conditions as specified in paragraph 25 of the Basel III leverage ratio framework and disclosure requirements. Under the OSFI NSFR regulation, the offset is permitted for collateral received in the form of either Level 1 HQLA or cash VM. OSFI has informed the Assessment Team that the use of Level 1 collateral (other than cash) tends to be around 15% of total collateral for derivatives transactions for Canadian D-SIBs and, hence, the impact on NSFR would be minimal. Given the current level of use of Level 1 assets other than cash as collateral for VM, the Assessment Team views this as a non-material deviation.
Materiality	Non-material
Basel paragraph number	36: Assets assigned a 0% RSF factor
Reference in the domestic regulation	Paragraph 44, LAR Chapter 3 – NSFR guideline
Finding	The Basel NSFR standard assigns a 0% RSF factor to assets comprising: (a) coins and banknotes immediately available to meet obligations; (b) all central bank reserves (including required reserves and excess reserves); (c) all claims on central banks with residual maturities of less than six months; and (d) "trade date" receivables arising from sales of financial instruments, foreign currencies and commodities that (i) are expected to settle within the standard settlement cycle or period that is customary for the relevant exchange or type of transaction, or (ii) have failed to, but are still expected to, settle. OSFI has also included unencumbered Level 1 assets as defined in LAR Chapter 2 paragraph 43 (c) to 43 (e) in the 0% RSF category, which should receive a 5% RSF factor according to the Basel NSFR standard. The Assessment Team views this as a deviation from the Basel standard but a non-material finding.
Materiality	Non-material
Basel paragraph number	37: Assets assigned a 5% RSF factor
Reference in the domestic regulation	Paragraph 45, LAR Chapter 3 – NSFR guideline

[5] Bank of Canada, "A Primer on the Canadian Bankers' Acceptance Market", 2018, www.bankofcanada.ca/wp-content/uploads/2018/06/SDP-2018-6.pdf.

Finding	The Basel NSFR standard assigns a 5% RSF factor to assets comprising unencumbered Level 1 assets as defined in Liquidity Coverage Ratio (LCR) paragraph 50, excluding assets receiving a 0% RSF as specified under paragraph 36, and including: (a) marketable securities representing claims on or guaranteed by sovereigns, central banks, Public Sector Entities (PSEs), the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community, or multilateral development banks that are assigned a 0% risk weight under the Basel II standardised approach for credit risk; and (b) certain non-0% risk-weighted sovereign or central bank debt securities as specified in the LCR. OSFI has assigned 5% RSF to unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against Level 1 assets, and where the institution has the ability to freely rehypothecate the received collateral for the life of the loan. Such assets classes receive a 10% RSF factor under Basel standards. The Assessment Team views this as a deviation from the Basel standard and a non-material finding.
Materiality	Non-material
Basel paragraph number	38: Assets assigned a 10% RSF factor
Reference in the domestic regulation	Paragraph 46, LAR Chapter 3 – NSFR guideline
Finding	The Basel NSFR standard assigns a 10% RSF to unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against Level 1 assets as defined in LCR paragraph 50, and where the bank has the ability to freely rehypothecate the received collateral for the life of the loan. OSFI has assigned a 10% RSF factor to unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against non-Level 1 assets, and where the institution has the ability to freely rehypothecate the received collateral for the life of the loan. These assets receive a higher RSF factor, of 15%, under Basel standards. The Assessment Team views this as a deviation from the Basel standard but a non-material finding.
Materiality	Non-material

2.3 Observations on the NSFR implementation in Canada

The following observations highlight certain special features of the regulatory implementation of the Basel NSFR standards in Canada. These are presented to provide additional context and information. Observations are considered compliant with the Basel standards and do not have a bearing on the assessment outcome.

2.3.1 Scope, minimum requirement and application issues

Basel paragraph number	8: Introduction
Reference in the domestic regulation	Paragraph 3, LAR Chapter 3 – NSFR guideline
Observation	The Basel NSFR text stipulates that the NSFR will become a minimum standard by 1 January 2018. The OSFI regulation on NSFR will become effective on 1 January 2020.
Basel paragraph number	50: Scope of application [Disclosure standard]
Reference in the domestic regulation	Paragraph 3, LAR Chapter 3 – NSFR guideline
Observation	The Basel NSFR requirements apply to all internationally active banks. In Canada, the NSFR requirements apply to Canadian D-SIBs only. Currently, these are the only internationally active banks in Canada. Therefore, at the current time, the

	scope of application is the same in substance as that required under the Basel standard.

2.3.2 Required stable funding

Basel paragraph number	33: Measurement of secured financing transactions (SFT)
Reference in the domestic regulation	Paragraph 35, LAR Chapter 3 – NSFR guideline
Observation	According to the Basel NSFR standard, SFTs with a single counterparty may be measured on a net basis when calculating the NSFR, provided that the netting conditions set out in Paragraph 33(i) of the Basel III leverage ratio framework and disclosure requirements document are met. Further, Basel FAQs (April 2016) on the Basel III leverage ratio framework (at 4.1 (2)) mention that an SFT with no explicit end-date but which can be unwound at any time by any counterparty (eg open repos) is not eligible for Basel III leverage ratio netting of SFTs, as it does not meet the condition set out in paragraph 33(i)(a). This condition requires that, for Basel III leverage ratio netting, transactions must have the same explicit final settlement date. While this condition is not explicitly mentioned in the OSFI regulations, the OSFI have informed the Assessment Team that Canadian banks book some overnight (one-day) reverse repos as open-ended for operational reasons. OSFI recognised this local market practice in Canada and, rather than giving a blanket exemption, only those transactions that meet the criteria mentioned in footnote 16 of the OSFI NSFR rules may be netted against the same maturity liabilities.
Basel paragraph number	45: Interdependent assets and liabilities
Reference in the domestic regulation	Paragraph 53, LAR Chapter 3 – NSFR guideline
Observation	The Basel NSFR standard provides discretion to national supervisors in limited circumstances to determine whether certain assets and liabilities, on the basis of contractual arrangements, are interdependent such that the liability cannot fall due while the asset remains on the balance sheet, the principal payment flows from the asset cannot be used for something other than repaying the liability and the liability cannot be used to fund other assets. For interdependent items, supervisors may adjust RSF and ASF factors so that they are both 0%, subject to meeting the conditions in Paragraph 45. The OSFI NSFR regulation envisages some specific securitisations (National Housing Act Mortgage-Backed Securities (NHA MBS) and Canada Mortgage Bonds (CMBs) programmes) as eligible for the application of the treatment of interdependent assets and liabilities. The NHA MBS programme ensures that the security holder receives the timely payment of principal and interest (at the prescribed security rate), whether or not principal and interest on the mortgages have been collected by the issuer (a Canadian bank).[6] The timely payment of NHA MBS principal and interest is guaranteed by the Canada Mortgage and Housing Corporation (CMHC), a federal crown corporation fully backed by the Government of Canada. If a borrower fails to make up a payment on the underlying mortgage, the issuer is required to make up the timely payment to the security holder. The issuer is entitled to claim subsequently on the mortgage insurance policy. If the issuer does not or cannot make up the payment, the CMHC is required to make up the payment to the security holder under the NHA MBS timely payment guarantee, which provides recourse for the security holder to the CMHC. The CMHC is entitled to claim subsequent reimbursement from the issuer.[7]

6 For a description of the NHA MBS programme, see the assessment report on LCR regulations for Canada available at www.bis.org/bcbs/publ/d421.pdf.

7 As mentioned in the assessment report on LCR regulations for Canada, no security holder has ever invoked the timely payment guarantee.

	Overall, the issuer remains responsible for covering shortfalls in amounts due to security holders that result from mortgagor delinquencies, foreclosures or any other cause. The Assessment Team is of the view that, in such cases, the issuer would remain exposed to some risk, including funding risk. However, due to the fact that all the mortgage loans are insured by the CMHC in its capacity as insurer or by private sector firms backed by the guarantee of the Canadian government, the Assessment Team noted that this risk is sufficiently mitigated, allowing OSFI to treat NHA MBS as interdependent assets and liabilities.

2.3.3 Disclosure requirements

Basel paragraph number	LIQ 2 Date, Introduction
Reference in the domestic regulation	Paragraph 2, OSFI Net Stable Funding Ratio Disclosure Requirements
Observation	The Basel standard stipulates that the NSFR disclosure requirements will come into effect no later than January 2018. The OSFI regulation on NSFR disclosure will become effective in January 2021.

Annexes

Annex 1: RCAP Assessment Team and Review Team

Assessment Team Leader

Ms Kerstin af Jochnick	Sveriges Riksbank, Sweden

Assessment Team members

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Mr Ko Nishiuchi	Financial Services Agency, Japan
Mr Sang Don Lee	Financial Supervisory Service of Korea
Mr Stefan Hohl	Bank for International Settlements, Financial Stability Institute

Annex 2: List of Basel standards and implementing regulations issued by the Canadian authorities

The following Basel standards were used as the basis of this RCAP assessment:

- *Basel III: the Net Stable Funding Ratio*, October 2014
- *Basel III – The Net Stable Funding Ratio: frequently asked questions*, February 2017
- *Pillar 3 disclosure requirements – consolidated and enhanced framework*, March 2017
- *Implementation of Net Stable Funding Ratio and treatment of derivative liabilities*, October 2017
- *Treatment of extraordinary monetary policy operations in the Net Stable Funding Ratio*, June 2018

Table A.1 lists the regulations issued by the OSFI to implement the NSFR in Canada. Previous RCAP assessments of Canada's implementation of the Basel standards considered the binding nature of regulatory documents in Canada.[8] This RCAP Assessment Team also concluded that the guidelines described in Table A.1 could be considered as binding on banks and supervisors for the purposes of an RCAP assessment.

Overview of relevant Canadian liquidity regulations

Table A.1

Domestic regulations	Type, version and date
Liquidity Adequacy Requirements (LAR) Guideline: Chapter 1 – Overview	Guideline, April 2019
Liquidity Adequacy Requirements (LAR) Guideline: Chapter 3 – Net Stable Funding Ratio	Guideline, April 2019
Net Stable Funding Ratio Disclosure Requirements	Guideline, April 2019

Source: OSFI.

[8] See Annex 7 of the RCAP assessment of the Basel III risk-based capital regulations in Canada, published in June 2014 and available at www.bis.org/OSFIs/publ/d320.htm.

Annex 3: Key liquidity indicators of the Canadian banking system

Overview of Canadian banking sector liquidity — Table A.2

Size of banking sector as of 30 September 2018 (CAD, millions)		
Total exposures of all banks operating in (including off-balance sheet exposures)	6,006,165	
Total assets of all locally incorporated internationally active banks	5,655,435	
Total assets of locally incorporated banks to which liquidity standards under the Basel framework are applied	5,655,435	
Number of banks as of 30 September 2018		
Number of banks operating in Canada (excluding local representative offices)	72	
Number of global systemically important banks (G-SIBs)	1	
Number of D-SIBs	5	
Number of banks which are internationally active	6	
Number of banks required to implement Basel III liquidity standards[1]	6	
Number of banks required to implement domestic liquidity standards	69	
Breakdown of NSFR for six RCAP sample banks as of 31 July 2018 (CAD, millions)	**Unweighted**	**Weighted**
Capital	349,682	349,682
Stable deposits from retail and small business customers	645,017	615,221
Less stable deposits from retail and small business customers	853,884	776,298
Unsecured funding from non-financial corporates	655,710	336,238
Unsecured funding from central banks, sovereigns, PSEs, MDBs and NDBs	164,299	54,975
Unsecured funding from financials (other legal entities)	1,062,280	425,553
Secured funding (all counterparties)	886,711	331,862
Other liabilities	313,485	17,498
Total available stable funding	4,931,067	2,907,327
Cash and central bank reserves	209,165	-
Loans to financial institutions	725,433	164,992
Securities eligible as Level 1 HQLA	668,477	75,019
Securities eligible as Level 2A HQLA	151,119	35,804
Securities eligible as Level 2B HQLA	125,231	63,367
All residential mortgages	979,600	692,784
Loans, <1 year	315,129	151,817
Other loans, >1 year, risk weight<=35%	150,818	98,254
Loans, risk weight>35%	1,028,380	874,931
Derivatives	57,542	36,467
All other assets	491,143	414,228
Off-balance sheet	2,194,214	109,711
Total required stable funding	7,096,251	2,754,206
NSFR		105.8%

1. Only the D-SIBs apply the NSFR.

Source: OSFI.

Annex 4: Materiality assessment

The outcome of the RCAP assessment is based on the materiality of the findings described in Section 2.2 and summarised in Table A.3. Assessment Teams evaluate the materiality of findings quantitatively where possible, or using expert judgment when the impact cannot be quantified.

The materiality assessment for quantifiable gaps is based on the cumulative impact of the identified deviations on the reported NSFRs of banks in the RCAP sample. These banks are listed in Table A.4.

Number of deviations by component Table A.3

Component	Not material	Potentially material	Material
Scope, minimum requirement and application issues	-	-	-
Available stable funding (numerator)	1	1	-
Required stable funding (denominator)	4	-	-
NSFR disclosure requirements	-	-	-

RCAP sample banks Table A.4

Banking group	Share of banks' assets in the total assets of the Canadian banking system (per cent)
Canadian Imperial Bank of Commerce	10.81
Toronto-Dominion Bank (The)	23.07
Bank of Montreal	14.22
Royal Bank of Canada	23.54
Bank of Nova Scotia (The)	17.85
National Bank of Canada	4.67
Total	94.16

Source: OSFI. For this purpose, banking assets are based on the measure of total exposures used in the leverage ratio, which includes both on- and off-balance sheet exposures.

Annex 5: Rectifications made by OSFI

OSFI took into account the discussions with the Assessment Team, in concert with the domestic consultation process, when it finalised and published on 11 April 2019 the revisions to Chapters 1 and 3 of its LAR Guideline.

Annex 6: Issues for follow-up RCAP assessments

Available stable funding

The OSFI NSFR Guideline envisages a specific category of liabilities, ie BA, as subject to a 35% ASF factor. The Basel standard stipulates application of a 50% ASF factor if the counterparty is a non-financial corporate, or 0% otherwise, which includes cases where the counterparty is a financial institution or cannot be determined. The Assessment Team is of the view that BAs should receive a 0% ASF factor as the holder of BAs cannot be determined after their issuance.

As a growth trend can be observed in the Canadian BA market and given its potential materiality, the Assessment Team would propose to follow up on this issue.

Annex 7: Elements of the NSFR subject to national discretion

Implementation of national discretions by OSFI — Table A.[6]

Basel paragraph	Description	National implementation
25(a)	Treatment of deposits between banks within the same cooperative network	OSFI has excluded the treatment of deposits within a cooperative network from the NSFR rule as these deposits are not reflected in the business model of banks subject to its application.
31	Treatment of excess collateral in a covered bond collateral pool allowing for multiple issuance	The excess collateral in a covered bond collateral pool that allows for multiple issuance may be treated as unencumbered subject to OSFI's discretion.
31, 36	Treatment of central bank operations	OSFI has set the RSF factor for required (and excess) reserves at 0%. OSFI has set the RSF for assets encumbered for exceptional liquidity operations at the same RSF factor as that for the equivalent unencumbered asset. OSFI allows derivatives transactions with central banks arising from short-term monetary policy and liquidity operations to be excluded from the NSFR computation and offset related unrealised capital gains and losses from ASF.
43	RSF factor for derivative liabilities	OSFI has assigned a 100% RSF factor to 5% of derivative liabilities.
45	Treatment of interdependent assets and liabilities	Based on the criteria outlined in paragraph 45 of the Basel NSFR rule for the 0% ASF/RSF treatment of interdependent assets and liabilities, OSFI has designated four specific transactions that meet these criteria: • National Housing Act Mortgage-Backed Securities; • Canada Mortgage Bonds; and • Intermediation of clients' variation margin with a central counterparty (CCP).
47	RSF factors for other contingent funding obligations	OSFI has assigned the following RSF factors to off-balance sheet exposures: • Unconditionally revocable credit and liquidity facilities provided to retail and small business customers (2% of the currently undrawn portion); • Unconditionally revocable credit and liquidity facilities provided to all other customers (5% of the currently undrawn portion); • Trade finance-related obligations (3%); • Guarantees and letters of credit unrelated to trade finance obligations (5%); • Debt buy-back requests (0%); • Structured products (5%); • Managed funds (0%); and • Other non-contractual obligations (5%).
50	Scope of application of NSFR and scope of consolidation of entities within a banking group	OSFI will apply the NSFR to all G-SIBs and D-SIBs on a consolidated basis.

Source: OSFI.

Annex 8: Areas where Canadian rules are stricter than the Basel standards

In one area, the Canadian authorities have adopted a stricter approach than the minimum standards prescribed by the Basel Committee. This is listed below for information. The stricter rules have not been taken into account as mitigants for the overall or component-level assessment of compliance.

Paragraph 79 of the Basel LCR standard notes that supervisory authorities are expected to develop additional buckets of less stable retail deposit rates as necessary, with a minimum run-off rate of 10%. In April 2019, OSFI published a revised LAR Guideline, which amended the domestic implementation of the LCR to include four new buckets of less stable deposits, in addition to the existing requirements, with run-off rates ranging from 10% to 40% (paragraph 60 in LAR Guideline Chapter 2). These new categories have been transposed to the NSFR (paragraph 19 of LAR Guideline Chapter 3), resulting in lower ASF factors than the 90% maximum permitted in the Basel NSFR rules for several categories of less stable retail deposits.