



RBC Capital Markets

Update on OTC Regulatory
Margin Requirements:
Focus on Canada

October, 2016

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INTRODUCTION

Unquestionably, the focus of the larger derivatives market participants this year has been on regulatory margin requirements for non-cleared derivatives. These requirements have far-reaching impacts on pricing, margin calculation and collateral management in respect of non-cleared derivative products. The regulatory margin requirements introduce a two-way exchange of initial margin (IM) and variation margin (VM) among entities in-scope of the margin rules. These entities generally include financial entities with large non-cleared derivatives trading exposure.

RBC, as the largest market participant in Canada for non-cleared derivatives, is committed to remaining at the forefront of regulatory developments and to helping guide our clients through the complex and sometimes confusing world of regulatory margin. In this regard, we hope that the attached overview of regulatory margin reform, including documentation and cross-border issues, is helpful in de-mystifying such obligations for our clients.

Background

In September 2013, the Basel Committee on Banking Supervision and the Board of the International Organization of Securities Commissions (BCBS/IOSCO) published the final framework for margin requirements for non-cleared derivatives. The stated goal of the BCBS/IOSCO margin requirements is to reduce systemic risk and promote central clearing.

With respect to systemic risk, the exchange of margin (i.e. collateral) among market-participants in non-cleared derivatives reduces the risk of contagion and spillover effects in financial crisis situations. This is because there will be collateral available to offset losses caused by the default of several large systemically-important market participants at the same time. The BCBS/IOSCO framework requires exchange of IM and VM among financial entities (and non-financial entities in some jurisdictions) for nearly all non-cleared derivatives trades.

By imposing bi-lateral regulatory margin, regulators are duplicating one of the foundational safeguards of central clearing, which is the exchange of collateral to manage counterparty credit risk and prevent the build of financial risk in the global derivatives markets. As a result of these new margin requirements, some of our clients may find it more convenient to use RBC's clearing services for derivative products that are eligible for clearing.

Margin Rules

RBC is in-scope of margin rules in Canada, the US and the European Union. In this note, we will begin with a discussion of the Canadian margin rules and then identify certain cross-border challenges.

In Canada, the Office of the Superintendent of Financial Institutions (OSFI) acts as the supervisor and principal regulatory authority of federally regulated financial institutions (FRFIs), including RBC. On February 29, 2016, OSFI released its final Guideline E-22: Margin Requirements for Non-Centrally Cleared Derivatives (OSFI Margin Guidelines) that require FRFIs, including RBC, to exchange IM and VM with other covered financial entities. Generally speaking, covered financial entities are deposit-taking institutions, insurance companies, pension funds, hedge funds and assets managers that belong to a consolidated group whose aggregate notional amount of non-cleared derivatives for March, April, and May of 2016 and any year thereafter exceeds CAD 12 billion. Importantly, the OSFI Margin Guidelines do not apply to non-financial entities and commercial end-users and thus, generally speaking, non-cleared derivatives trades with RBC for most of our clients that are non-financial entities or are commercial end-users do not require exchange of regulatory margin¹.

The exchange of IM and VM under OSFI Margin Guidelines are phased-in over a number of years depending on the notional threshold trading activity of non-cleared derivatives, with the majority of RBC's larger financial clients swept into the requirement to exchange VM on March 1, 2017 and to exchange IM between September 1, 2016 and September 1, 2020. The requirement to exchange IM and VM applies to all non-cleared derivatives with the exception of physically settled foreign exchange (FX) forwards and FX swaps. In addition, physically settled commodity transactions are excluded from OSFI's definition of a derivative and are therefore not subject to margin requirements.

Figure 1 provides examples of RBC trades with our counterparties that are in-scope for OSFI Margin Guidelines. Figure 2 provides the phase-in schedule for IM and VM exchange in Canada, the US and Europe.

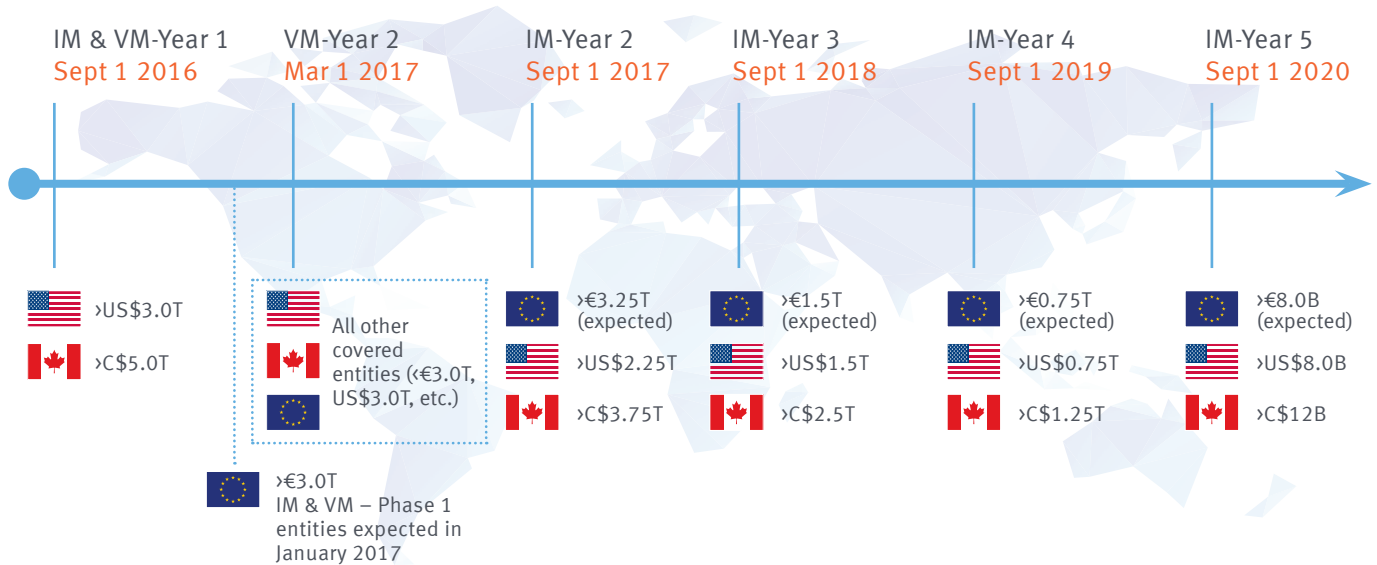
¹ In some jurisdictions, such as the European Union, non-financial entities that trade derivatives over a certain threshold may be subject to the margin rules. For further discussion, please review the section on Cross-Border Issues and Appendix B.

FIGURE 1: EXAMPLES OF RBC TRANSACTIONS IN-SCOPE FOR OSFI MARGIN GUIDELINES

RBC TRANSACTS WITH...	
...another FRFI	<ul style="list-style-type: none"> In-scope if RBC's counterparty belongs to a consolidated group whose aggregate month-end notional exceeds CAD 12 billion in that year.
...a financial entity	<ul style="list-style-type: none"> In-scope if RBC's counterparty belongs to a consolidated group whose aggregate month-end notional exceeds CAD 12 billion in that year. Insurance companies, pension funds, hedge funds and asset managers are included in the definition of a financial entity. Subject to conditions, RBC can defer to rules of the counterparty's home jurisdiction for purposes of determining whether a counterparty is a covered entity.
...non-financial entity	<ul style="list-style-type: none"> OSFI Margin Guidelines not applicable; commercial margin terms may be used.
...treasury affiliates, SPEs, SPVs meeting certain conditions	<ul style="list-style-type: none"> Subject to conditions, OSFI Margin Guidelines not applicable; commercial margin terms may be used.
...a public sector entity	<ul style="list-style-type: none"> OSFI Margin Guidelines not applicable; commercial margin terms may be used. Public sector entities are defined as entities directly or wholly-owned by a government; school boards, hospitals, universities and social service programs that receive regular government financial support; and municipalities.
...central counterparties	<ul style="list-style-type: none"> OSFI Margin Guidelines not applicable; margin exchanged in-line with CCP's rules.

FIGURE 2: PHASE-IN OF MARGIN EXCHANGE

G-20 margin rules set out a multi-year phase-in for IM and phase-ins for VM over two dates, with RBC's larger clients likely swept into VM exchange on March 1, 2017. RBC began exchanging IM and VM with the largest in-scope firms subject to the US margin rules on September 1, 2016.



THE MECHANICS OF MARGIN EXCHANGE

Exchange of margin (i.e. collateral) reduces credit exposure and counterparty credit risk. Margin takes one of two forms: IM or VM. IM, as the name suggests, is the margin that is required to be exchanged at the beginning of a trade in non-cleared derivatives. VM, on the other hand, is exchanged during the life of the trade to reflect daily mark-to-market movement in the value of the non-cleared derivative. Under OSFI Margin Guidelines, IM is required to be calculated and called within two business days of the execution of a non-cleared derivative transaction. These concepts are further expanded on below.

What is IM and how does it apply?

IM is collateral collected by a party to cover its current and potential future exposure in the interval between the last margin exchange and the liquidation of positions following a default of its counterparty. Regulators view the exchange of IM as a key tool to manage the risk that the default of a derivatives market participant could adversely impact the global financial markets in a material way. Exchange of IM ensures that a party, in the event of a counterparty default, has collateral to address the risk of potential losses that could reasonably occur during the time it takes to closeout and replace the derivative. IM is a “defaulter pays” safeguard and is required to be exchanged on a gross basis. IM must be segregated by having it held by third-party custodians, and it cannot generally be re-hypothecated (i.e. it cannot be re-used).

Margin rules allow for IM to be calculated one of two ways: (i) a quantitative portfolio margin model or (ii) a standardized margin schedule. RBC has contributed to the development of a common initial margin model through the International Swaps and Derivatives Association (ISDA), known as the ISDA Standard Initial Margin Model (ISDA SIMM). RBC uses the ISDA SIMM for IM calculations as the use of standard margin schedules can lead to over-collateralization due to limited netting benefits within a portfolio.

What is VM and how does it apply?

In contrast to IM, VM is additional collateral that is collected and posted over the life of a non-cleared derivative trade. Exchange of VM protects counterparties from the current exposure that has actually been realized by one of the parties from changes in the mark-to-market values of a derivatives position after the trade execution. The intention behind the exchange of VM is to reduce the adverse liquidity shocks and to effectively mitigate counterparty credit risk. Since VM is, in general, already owed, there are no restrictions against re-hypothecation and VM does not have to be segregated. Further, exchange of VM cash flows can be netted subject to an enforceable netting agreement. Please see Figure 3 for a comparison between IM and VM.

Other Margin Concepts

Global margin rules also set out minimum transfer amounts (MTA) and threshold amounts to margin exchange. Broadly speaking, MTA sets a minimum level below which margin is not required to be exchanged; this avoids the need to transfer a small amount of collateral to reduce operational burden. The margin rules also set maximum threshold amounts which set out an amount under which a firm would have the option of not collecting IM. We explain how exchange of IM and VM works, along with what MTA would look like under a hypothetical vanilla interest rate swap in Figure 4.

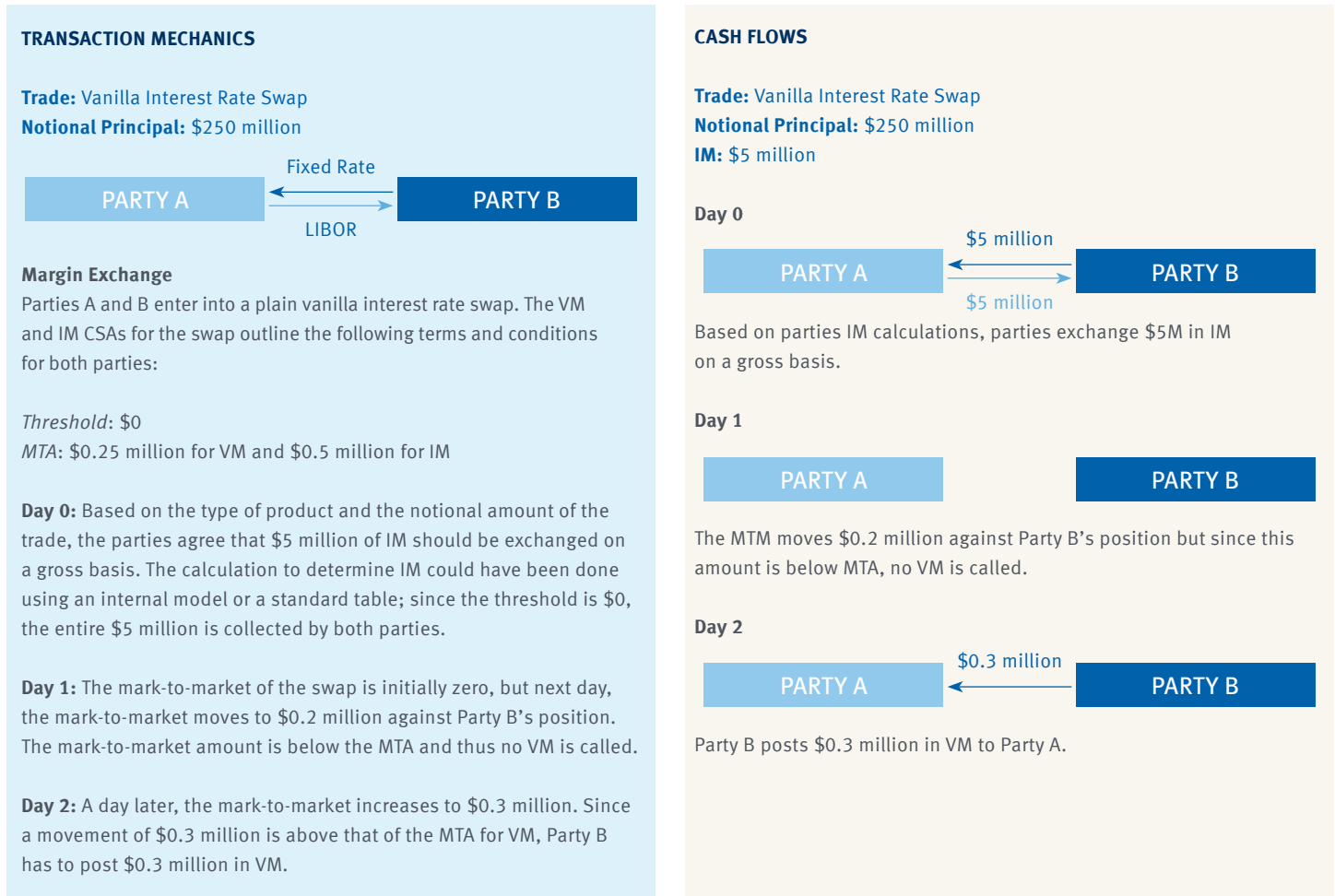
ISDA SIMM

The ISDA SIMM is a common IM methodology that has been developed for use by market participants globally. The rationale behind an industry model is that if each counterparty developed its own “black box” margin methodology, counterparties would not be able to agree to on the IM that is required to be exchanged, leading to a surge in disputes, and no easy way to resolve such disputes. ISDA has developed an ISDA SIMM Governance Committee whose mandate is to periodically review the SIMM and make changes to the SIMM based on regulatory guidance or market conditions.

FIGURE 3: DIFFERENCES BETWEEN INITIAL AND VARIATION MARGIN

TYPE OF MARGIN	FEATURE	SEGREGATION/RE-HYPOTHECATION	CASH FLOW
Initial Margin	<ul style="list-style-type: none"> Calculated at the beginning of the trade. 	<ul style="list-style-type: none"> IM must be segregated. IM cannot be re-hypothecated. 	<ul style="list-style-type: none"> Exchanged gross (netting not allowed).
Variation Margin	<ul style="list-style-type: none"> Calculated during the life of the trade. 	<ul style="list-style-type: none"> VM does not have to be segregated. VM can be re-hypothecated. 	<ul style="list-style-type: none"> Cash flows netted subject to a legally enforceable netting agreement.

FIGURE 4: HYPOTHETICAL TRADE TO ILLUSTRATE MARGIN MECHANICS AND CASH FLOWS



Documentation Issues

As mentioned above, we expect that many of our clients will find themselves in-scope of the VM exchange requirement on March 1, 2017, with some clients phased into the IM exchange requirement through 2017 – 2020 (with the last compliance date for IM exchange set for September 1, 2020). In advance of the relevant regulatory deadlines, RBC will begin client outreach through Markit ISDA Amend or via e-mail and we will request our clients to provide us with the ISDA Regulatory Margin Self-Disclosure Letter. In this letter, we will be asking our clients to provide information on: (i) the margin regulations to which they are subject to; (ii) if they are above the average aggregate notional amount of non-cleared derivatives activities which could require the exchange of IM starting on a particular date; and (iii) if they are a covered counterparty under the margin regulations applicable to RBC. The letter, together with the information on products, will help us determine which clients are in-scope of margin exchange. We urge our clients to complete the documentation as early as possible to avoid any disruption to services.

Once we determine which clients are in-scope of margin rules, legal documentation that includes the ISDA Master Agreement for OTC Derivatives along with regulatory compliant credit support documents (Credit Support Annex or Credit Support Deed) will need to be negotiated. Further, if IM is required to be exchanged, IM custodial arrangement documentation will also need to be put in place. While the above documentation requirements can be complex, RBC has a team of professionals who are committed to assisting our clients navigate the new regulatory landscape.

Legacy Trades

Clients should note that non-cleared derivatives traded with RBC prior to the relevant compliance dates will not be subject to margin requirements in Canada, the US, or Europe (Legacy Trades). Such Legacy Trades with RBC will be subject to existing client support documentation with RBC. However, counterparties must also carefully track any amendments, modifications, novations and/or compression exercises impacting a Legacy Trade. For example, while OSFI Margin Guidelines do not treat “genuine amendments” to a Legacy Trade as a new derivatives contract, any amendment that is intended to extend a Legacy Trade to avoid margin requirements will be considered a new derivatives contract, and brought into scope of the margin rules.

CROSS-BORDER ISSUES

While RBC has welcomed global alignment on margin rules, some key jurisdictional differences remain that add operational complexities. Foremost, the scope of coverage, both in terms of entities and products that are covered by the regulations differ in Canada, the US, and Europe.

In the US, margin rules are issued by the US prudential regulators (US PR Rules) and the Commodity Futures Trading Commission (CFTC Margin Rules). In Europe, the European Commission released final margin rules in October 2016, but implementation dates have not been finalized (the EMIR Margin Rules).

Under the US margin rules, a covered swap entity is required to adhere to IM requirements when trading with other swaps entities and financial end-users with material swaps exposure²; transactions with all commercial end-users are exempt. However, the proposed scope of counterparties subject to margin rules in Europe is wider than in the US and Canada as EMIR Margin Rules capture non-financial companies with outstanding derivatives notional above a certain threshold (referred to in the market as NFC+ entities). Please see Appendix A for a more comprehensive overview of entities that are subject to margin rules under OSFI Margin Guidelines, US PR Rules and EMIR Margin Rules.

In addition to the differences between global margin rules on covered entities, there are also differences in the scope of products

Eligible Collateral

Another important element of the global margin rules is collateral that is eligible to satisfy margin requirements. The margin rules also impose an additional 8% haircut on non-cash collateral posted as VM where the collateral is denominated in a currency that is not eligible under the relevant collateral document. In the case of IM, an 8% haircut would be applied to non-cash collateral that is denominated in a currency other than the termination currency. The types of collateral that can be used for margin are limited to high quality, liquid assets such as cash and government securities.

covered. For example, US PR Rules and OSFI Margin Guidelines exempt physically settled foreign exchange swaps and forwards from margin requirements; however, EMIR Margin Rules require VM to be exchanged on these products. Similarly, differences exist on the treatment of equity options. While US PR Rules and CFTC Margin Rules exempt equity options, these products are caught in the scope of both EMIR Margin Rules and OSFI Margin Guidelines³.

For ease of reference, Appendix B includes a detailed list of derivatives products and their status as whether they are in-scope products under OSFI Margin Guidelines, US PR Rules and EMIR Margin Rules.

Further, for cross-border trades, more than one set of margin rules could apply as the margin rules reach can extend beyond the home jurisdiction. For example, US PR Rules can apply wherever there is a US nexus⁴ to the trade and EMIR Margin Rules can apply to an entity that is not a pure “Non-EU Entity”⁵. While a fuller analysis of the cross-border issues is beyond the scope of this report, the key point to note is that one or more of OSFI Margin Guidelines, US PR Rules and EMIR Margin Rules, in addition to margin rules of the home jurisdiction of the counterparty, could apply to a trade between RBC and the counterparty. In this regard, flexible substituted compliance regimes that allow global market participants to apply comparable foreign rules for cross-border trades are particularly important.

2. Note, VM is required to be exchanged with financial-end users. Please see Appendix A for additional details.

3. EMIR Margin Rules allow for a three year phase-in period for equity options; no such relief is available in Canada.

4. An entity has a US nexus if it: (i) has a US parent; (ii) organized under the laws of the US; (iii) transacts through a US branch; or (iii) trades are guaranteed by a US person.

5. A pure “Non-EU Entity” is an entity that: (i) is not established in an EU member state; (ii) does not have a guarantee for its liabilities from a financial counterparty established in a EU member state; and (iii) is not transacting out of an EU branch of a non-EU Entity that would qualify as a financial counterparty if it were established in the EU.

Substituted Compliance

The OSFI Margin Guidelines, the US PR Rules and the EMIR Margin Rules all allow for substituted compliance to avoid duplicative or conflicting margin requirements on a single set of transactions. For example, under OSFI Margin Guidelines, RBC may comply with margin requirements applicable to a foreign counterparty if OSFI determines that a foreign jurisdiction's margin requirements are comparable to the BCBS/IOSCO margin requirements. OSFI Margin Guidelines permit substituted compliance for both collecting and posting of margin. US rules, however, require a US person to collect margin in line with US rules, but allow for, in some circumstances, US persons to post margin under foreign rules. The substituted compliance framework is a welcome addition to the global margin rules; one that will significantly reduce the potential for duplicative and overlapping requirements in transactions with foreign counterparties and facilitate cross-border margin exchange.

RECENT DEVELOPMENTS

Canadian Provincial Margin rules

On July 7, 2016, the provincial Canadian Securities Administrators issued consultation paper – 95-401, “Margin and Collateral Requirements for Non-Centrally Cleared Derivatives” (CSA Margin Rules). The proposed framework is largely consistent with BCBS-IOSCO Standards and OSFI Margin Guidelines applicable to FRFIs. RBC and other FRFIs that comply with OSFI Margin Guidelines, or trades with FRFIs are given substituted compliance under the CSA Margin Rules. It is our understanding that the CSA Margin Rules will not be finalized until late 2017 and will be subject to a similar phase-in and implementation schedule as set out in Figure 2 above. Since FRFIs, including RBC, are given substituted compliance under the CSA Margin Rules, we expect that the CSA Margin Rules will have minimal impact on our clients' trades with RBC.

APPENDIX

APPENDIX A: COVERED ENTITIES

CONCEPT	CANADA	US PR RULES	EMIR MARGIN RULES
Covered Entities	<ul style="list-style-type: none"> ▪ Covered FRFIs must exchange margin with a counterparty that is a Covered Entity. ▪ Covered FRFI: an entity regulated by OSFI, which includes Canadian banks, trust and loan companies, cooperative credit associations and Canadian branches of non-Canadian banks. ▪ Covered Entity is a Financial Entity with over CAD 12 billion in non-cleared derivatives (on a consolidated basis, excluding intragroup trades). ▪ Financial Entities are entities whose main business includes the management of financial assets, lending, factoring, leasing, provision of credit enhancements, securitization, investments, financial custody, proprietary trading and other financial services activities. This includes (but is not limited to) deposit-taking institutions, insurance companies, pension funds, hedge funds, and asset managers. 	<ul style="list-style-type: none"> ▪ Covered Swap Entities (CSE) must: <ul style="list-style-type: none"> - exchange IM and VM with a Swap Entity and a Financial End-User (FEU) with Material Swaps Exposure; and - exchange VM (but not IM) with a Financial End-User. ▪ A CSE is a Swap Entity that is regulated by a US prudential regulator. ▪ A Swap Entity is an entity that is registered as a swap dealer, major swap participant, security-based swap dealer or major security-based swap participant. ▪ A FEU means a bank or other specified regulated financial entity or an investment company, securitization vehicle, or other specified investment pool. ▪ A FEU has Material Swaps Exposure if its average aggregate notional amount in non-cleared derivatives and physically settled FX swaps and forwards for June, July and August of the prior year, determined on a consolidated basis, is in excess of USD 8 billion (certain hedging transactions are excluded; trades with affiliates are counted only once). 	<ul style="list-style-type: none"> ▪ Financial Counterparties and Non-Financial Counterparties (NFCs) that exceed the thresholds set out below (i.e. NFC+) must exchange VM and IM with each other. ▪ Financial Counterparties include banks, broker-dealers, investment managers, certain funds and other types of financial entities. ▪ NFCs are counterparties that do not fall within the definition of a Financial Counterparty and are typically end-users of derivative products. ▪ A NFC+ is a NFC that (together with its NFC affiliates) has exceeded one of the following clearing thresholds: <ul style="list-style-type: none"> (i) EUR 1 billion in gross notional value for OTC credit derivative contracts; (ii) EUR 1 billion in gross notional value for OTC equity derivative contracts; (iii) EUR 3 billion in gross notional value for OTC interest rate derivative contracts; (iv) EUR 3 billion in gross notional value for OTC foreign exchange derivative contracts; (v) EUR 3 billion in gross notional value for OTC commodity derivative contracts and other derivative contracts.
Exempted Entities	<ul style="list-style-type: none"> ▪ End-users that are not financial entities. ▪ Sovereigns, public sector entities, certain special purpose entities, multilateral development banks, Bank for International Settlements and Central Counterparties. 	<ul style="list-style-type: none"> ▪ Sovereigns, multilateral development bank, Bank for International Settlements, commercial end users and small banks. 	<ul style="list-style-type: none"> ▪ NFC- entities (these are entities that are not NFC+ entities because they are below the thresholds above). ▪ EU, US and Japanese central banks and sovereigns, multilateral development banks, Bank for International Settlements and issuers of covered bonds/pools (if certain conditions are met).
Inter-affiliate trades	<ul style="list-style-type: none"> ▪ Inter-affiliate trades exempt. 	<ul style="list-style-type: none"> ▪ VM: Collect from and post to affiliates. ▪ IM: Collect from affiliates subject to USD 20 million IM threshold. 	<ul style="list-style-type: none"> ▪ Local regulator can grant exemptions.

APPENDIX B: PRODUCTS IN SCOPE

INSTRUMENT TYPE	OSFI GUIDELINE	US PR RULES	EMIR MARGIN RULES
Interest Rate			
Swaps	Yes	Yes	Yes
Options	Yes	Yes	Yes
Swaption	Yes	Yes	Yes
Cross-Currency Swap	Yes	Yes	Yes
Foreign Exchange			
FX Swap	Yes	Yes	Yes
FX Non-deliverable Forward	Yes	Yes	Yes
FX Option	Yes	Yes	Yes
EXEMPTIONS			
FX Spot	No	No	No
Physically settled FX swaps	No	No	VM, not IM
Physically settled FX forwards	No	No	VM, not IM
Principal payments on cross-currency swaps	VM, not IM	VM, not IM	VM, not IM
Securities			
Swap based on securities	Yes	Yes	Yes
Swap based on broad index	Yes	Yes	Yes
EXEMPTIONS			
Option based on securities	Yes	No	Yes
Option based on broad index	Yes	No	Yes
Forward based on securities	Yes	No	Yes
Forward based on broad index	Yes	No	Yes
Commodities			
Swaps	Yes	Yes	Yes
Swap on commodity-based index	Yes	Yes	Yes
Weather, energy, or emissions swap	Yes	Yes	Yes
EXEMPTIONS			
Physically settled forwards	No	No	Some
Trade options	Yes, but physically-settled commodity transactions exempted	Yes	Some
Credit			
Based on single name	Yes	Yes	Yes
Based on index	Yes	Yes	Yes
Other Exemptions			
Derivatives traded on futures exchange	No	No	No
Derivatives cleared on a recognized Central Clearing Counterparty	No	No	No

GLOSSARY

BCBS	Basel Committee on Banking Supervision; a forum for regulatory cooperation on banking supervisory matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide.
CCP	Central counterparty; infrastructure that places itself between counterparties to a transaction, becoming buyer to each seller and seller to each buyer, thereby providing a high degree of assurance regarding contract performance. CCPs apply rigorous risk management standards to cleared transactions.
Central Clearing	Clearing refers to the management (risk management, transaction monitoring, and netting) of a transaction after the matching of a buyer and seller to a trade and prior to the legal fulfillment of the respective obligation. Occurs as the CCP becomes the counterparty of the original buyer and seller through novation.
CFTC	United States Commodity Futures Trading Commission; conducts oversight and regulation of derivatives and other products subject to the Commodity Exchange Act.
CSA	Canadian Securities Administrators; the 10 provinces and 3 territories in Canada are each responsible for securities regulations in their home market. Authorities from each province and territory are coordinating through CSA to help develop a harmonized approach to regulation.
FRFI	Federally Regulated Financial Institution; used in this report to denote entities subject to OSFI Guidance and regulation.
G20	The Group of 20; a premier forum for its members' international economic cooperation and decision-making. Its membership comprises 19 countries plus the European Union. G-20 leaders meet annually. In 2008, the first G-20 Leaders' Summit was held, and the group played a key role in responding to the global financial crisis.
Initial Margin	Cash or collateral that is deposited to ensure performance of a party's obligations to its counterparty. Often calibrated to cover potential future exposure on a contract from the time counterparty defaults until exposure can be mitigated.
IOSCO	International Organization of Securities Commissions; the international body that brings together the world's securities regulators and is recognized as the global standard setter for the securities sector. IOSCO develops, implements and promotes adherence to internationally recognized standards for securities regulation.
OSFI	OSFI regulates and supervises financial institutions and private pension plans subject to federal oversight. It is an independent, self-financing agency that reports to Parliament through the Minister of Finance.
US Prudential Regulators	Office of the Comptroller of the Currency; Federal Reserve System; Federal Deposit Insurance Corporation; Farm Credit Administration; Federal Housing Finance Agency
Variation Margin	Collateral that is collected from or posted to a counterparty to reflect the daily change in the market value of the non-cleared derivative.

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