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# Leverage, Liquidity & Regulatory Guidance for Canadian Markets & Funds

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# State Street Global Exchange<sup>®</sup>

AIMA - Leverage, Liquidity & Regulatory Guidance  
for Canadian Markets & Funds

April 24<sup>th</sup> 2019



**STATE STREET.**

# Ontario Securities Commission - Priorities

Ontario Securities Commission, 2019 – 2022 Business Plan<sup>1</sup>

## International harmonization<sup>1</sup>

- The OSC is actively engaged at the international level, promoting cooperation, information sharing and the development of principles, standards and best practices in securities regulation.

## Enhance OSC systemic risk oversight<sup>1</sup>

- Continue to develop the OSC's capabilities to monitor liquidity conditions in the corporate debt market.
- Identify, assess, monitor and address (as required) potential financial stability risks in Ontario's capital markets.
- Respond to IOSCO's recommendations on liquidity management and leverage measurements and reporting including an assessment of the industry's readiness.

## Build a data driven, evidence based, risk focused organization<sup>2</sup>

- Implementation of a data-driven, evidence-based, risk focused organization will require a clearly defined data strategy, policies and procedures, standards, skilled resources and a shift in culture; as well as visible and active senior management support. The OSC will build its capability to be a data driven, evidence based, risk focused organization.

# IOSCO – final reports, Feb 2018

Open-ended fund liquidity and risk management – good practices and issues for consideration

“At its core, by pooling investors’ capital to invest in assets that are less liquid than cash, liquidity transformation is a key structural element to investment funds.

Hence, the management of this mismatch is a key area of consideration for regulators and the industry alike.”<sup>1</sup>

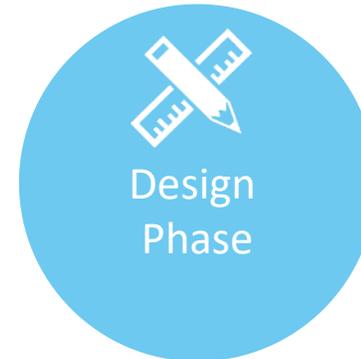
- “Recommendations for Liquidity Risk Management for Collective Investment Schemes, Final Report”, FR01/2018, IOSCO, Feb 2018. <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD590.pdf>
- “Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration, Final Report”, FR02/2018, IOSCO, Feb 2018. <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD591.pdf>

# Liquidity management for Collective Investments Schemes

What are some key pillars of an effective liquidity management program for Collective Investments Schemes (CIS)

## Design Phase – Initial fund set up considerations

- Effective liquidity risk management process
- Investor marketing
- Distribution channels



## Operations Phase – Liquidity management in action

- Policies and procedures
- Routine liquidity management tools
- Exceptional liquidity management tools



## Disclosure

- Investor/Boards
- Regulatory



# Design phase

What are some key considerations for a CIS set up?

## Investment Strategy

- Investment strategy or fund structure (public fund, open vs closed ended, leverage)
- Asset class, liquidity of underlying asset classes
- Size of the fund relative to the underlying market

## Redemption Terms

- Investor redemption (legally vs realistically expected)
- Redemption patterns (distribution channels)
- Investor type (retail vs institutional)
- Investor concentration

“The investment strategy and objectives should be designed to give strong assurance that redemptions can be met in both normal and reasonably foreseeable (i.e. extreme but plausible) stressed market conditions.”<sup>1</sup>

## Liquidity management tools

- Should the fund be structured with additional tools gates: lock ups, notice periods?

# Stress testing

What are some key considerations to implement effective stress testing?

## Scenario Design

- Backward-looking
  - Calibrated using statistical techniques & historical data
  - Uses updated (refreshed) market data along with specific historical periods of stress
  - Often automated process, therefore can be conducted more frequently
- Forward-looking
  - Responsible entities may construct plausible forward looking scenarios based on professional opinion from other experts such as PMs & traders
  - Often more ad-hoc in nature and therefore can occur less frequently based on market conditions
  - A more nuanced approach – take into account more portfolio / market / environment specific factors

## Tailoring the scenario to the CIS

- Investment/investor type of the CIS
  - Securities traded in OTC market may not have data to calibrate statistical measures. Hypothetical forward looking estimates may be more appropriate here
  - Collateral posting risk of other counterparties may affect the liquidity of an otherwise liquid CIS from an asset perspective
  - CIS shares sold directly to investors or via distribution channels. CIS may simulate stressed liquidation of the largest investor or all investors from a specific distribution channel

# OSC Staff - Fund Practices Relating to Portfolio Liquidity

## Mutual fund portfolio liquidity

In 2015, OSC staff completed a series of targeted reviews focused on mutual fund practices:

- i. liquidity assessments of fund holdings,
  - ii. liquidity stress testing, and
  - iii. liquidity valuation considerations.
- in particular asset classes that were considered to be more susceptible to liquidity concerns, including high yield debt funds, emerging market funds and small capitalization equity funds.

OSC Staff Notice 81-727 June 2015 summary and recommendations:

- having robust policies and procedures on liquidity assessments at the time of purchase of an investment and on an on-going basis, with assessments that are based on objective and relevant metrics,
  - having written stress testing policies and procedures in place at the time of purchase of an investment and on an on-going basis, including using scenario analysis that incorporate redemption rates that exceed past redemption experience, and
  - using valuation procedures that take into account the market conditions for the portfolio asset.
- We will publish additional guidance as needed.

# IOSCO Report: Leverage, Consultation Paper (Nov 2018)

## Summary

The Financial Stability Board (FSB) asks IOSCO<sup>1</sup> to:

- Identify and or develop consistent measures of leverage in funds and
- Consider identifying and/or developing more risk-based measure(s) to complement the initial measures

In both cases, IOSCO should consider appropriate netting and hedging assumptions.

IOSCO proposes two step process<sup>2</sup>:

1. Use high-level metrics to measure general amounts of leverage
2. Detailed risk-based analysis of those funds which may have a higher potential

<sup>1</sup> *Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities*, FSB. 12 January 2017, available at: <http://www.fsb.org/wp-content/uploads/FSB-Policy-Recommendations-on-Asset-Management-Structural-Vulnerabilities.pdf>

<sup>2</sup> *IOSCO Report: Leverage Consultation Paper*, CR08/2018, NOVEMBER 2018, available at [https://www.iosco.org/publications/?subsection=public\\_reports](https://www.iosco.org/publications/?subsection=public_reports)

# Leverage, proposed metrics

## Leverage in investment funds

“Leverage is a financial technique generally used to increase investment exposure. Leverage allows a fund to increase its potential gains, as well as losses, by using financial instruments and/or borrowed money to increase the fund’s market exposure beyond its net asset value”<sup>1</sup>

$$\text{Leverage} = \frac{\text{Market Exposure}}{\text{Net Asset Value}}$$

Three levels of metrics:

1. Gross Notional Exposure (GNE),
2. Adjusted Gross Notional Exposure (“Adjusted GNE”),
  - adjustments for interest rate derivatives and options, and
3. Net Notional Exposure (“NNE”)
  - accounts for some netting and currency hedging relationships.

# IOSCO – exposure by asset class

## Reporting template<sup>1</sup>

- Propose presentation of GNE, Adjusted GNE or NNE by asset class:
  - It allows for differentiating between low and high-risk exposures and
  - allows one to compare exposures within the same asset class(es)
  - Aligns with Form PF

Investment Type	Market Exposure			
	Position (base currency)		% NAV	
	Long	Short	Long	Short
Equity securities				
Equity derivatives				
Fixed income securities				
Credit derivatives				
Non-base currency holdings				
Foreign exchange derivatives				
High-quality sovereign bonds				
Interest rate derivatives				
Commodities				
Commodity derivatives				
Cash and cash equivalents				
Other				
TOTALS				

# Supplementary data points<sup>1</sup>

- Data points to estimate the effects of changes in market factors
  - DV01 and CS01/SDV01: interest rate and credit-sensitive instruments
  - Betas, investment's volatility: instruments referencing equities, FX and commodities
  - VaR (value at risk) measures, absolute or benchmark relative VaR

Another important consideration, the interplay between leverage and liquidity

- Availability of assets to meet calls for margin or collateral
  - Percentage of cleared and uncleared transactions
  - Posted collateral or margin as percentage of NAV
  - Amount re-hypothecated or allowed to be re-hypothecated
  - Holding of cash or cash equivalents

# AnalyticsGX – Investment Risk Services (truView®)



## Enterprise Risk Management

Historical and parametric Value at Risk: historical event stress testing, custom scenarios and macroeconomic shocks; benchmark relative risk and tracking error; and multi asset class factor modeling



## Portfolio Analytics

Exposure reporting including notional, duration equivalents, delta, counterparty and sector, industry, country. Sensitivities including DV01, Greeks, Key Rate Durations, YTM, OAS, Correlation/Beta. What-if analysis, position-based performance & attribution reporting



## Liquidity

Funding and market measures, liquidity coverage ratio, stress testing, liquidity scores, modelled volume, cost, flow indicators



## Transparency

Exposure and investment transparency into hedge funds and other private assets.



## Board Reporting

Comprehensive Board reporting package, detailing total plan risk and exposures and drilling into policy asset classes with asset class specific analytics, based on Custom Hierarchy



## Regulatory Risk Reporting

Packaged risk reports to help directly satisfy global regulatory reporting obligations and portfolio disclosures



## State Street Verus<sup>SM</sup>

A mobile solution powered by truView that leverages machine learning and natural language processing to monitor connections between client portfolios and breaking news

## Key Operating Metrics\* Update

<b>\$11T+</b>	assets processed
<b>5.3M</b>	rates loaded daily
<b>7.1B</b>	rates stored historically
<b>100M</b>	positions computed monthly
<b>11.0M</b>	unique securities supported
<b>2.0B</b>	scenarios computed monthly

\* Data as of Q3 2018

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# **Leverage, Liquidity & Regulatory Guidance**

## **Canadian Perspective - Alternative Mutual Funds**

April 24, 2019

Norbert Knutel

Blake, Cassels & Graydon LLP

The logo for the law firm Blakes, featuring the name "Blakes" in a stylized, cursive script font.

# Alternative Mutual Funds Project

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## Substance and Purpose

CSA: Effort to modernize previous commodity pools rules by making the regulatory framework in Canada more effective and relevant to help facilitate more alternative and innovative strategies while at the same time maintaining restrictions that we believe to be appropriate for products that can be sold to retail investors.

Allows mutual funds to invest in physical commodities or specified derivatives, or, borrow cash or engage in short selling in a manner not typically permitted for other mutual funds.

Products – where are we today?

# Illiquid Assets

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**Restriction:** A mutual fund (including alternative mutual fund) must not purchase an illiquid asset if, immediately after the purchase, more than 10% of its net asset value would be made up of illiquid assets.

A mutual fund must not hold, for a period of 90 days or more, more than 15% of its net asset value in illiquid assets.

“Illiquid asset” means: (a) a portfolio of assets that cannot be readily disposed of through market facilities on which public quotations in common use are widely available at an amount that at least approximates the amount at which the portfolio asset is valued in calculating the net asset value per security of the investment fund; or (b) a restricted security held by an investment fund.

Companion policy emphasizes the definition requires an asset to be readily disposed of through market facilities on which public quotations in common use are widely available.

“restricted security” means a security, other than a specified derivative, the resale of which is restricted or limited by a representation, undertaking or agreement by the investment fund in title, or by law.

# Illiquid Assets (*cont'd*)

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Commentators urged CSA to increase the limit or look at the illiquid assets restriction in context of redemption requirements.

CSA acknowledged that the definition is an issue but stated that reviewing / updating the definition fell 'beyond the scope of the alternative mutual fund project'.

Redemption Approach – definition is linked to how quickly an asset can be disposed of at its market value in order to satisfy the relevant redemption requirement of the fund.

CSA: 'we have determined that crafting illiquid asset restrictions based on redemption frequency would be unduly complex and impractical from a rule-making perspective'.

# Cash Borrowing

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Alternative mutual funds allowed to borrow cash up to 50% of their NAV for investment purposes subject to:

- (a) funds may only borrow from entities that would qualify as an investment fund custodian or sub-custodian;
- (b) where the lender is an affiliate or associate of the fund's manager, approval of the fund's IRC; and
- (c) any borrowing agreement must be made in accordance with normal industry practice and be on standard commercial terms for agreements of this nature.

CSA response to comments – 'we don't believe it is appropriate for a product designed to be sold to retail investor to have potentially unlimited leverage'.

Definition expanded to include entity that qualifies as custodian or sub-custodian under section 6.2 or 6.3 which includes foreign banks or trust companies and their affiliates.

Deleted requirement for affiliate of a bank or a trust company to make audited financial statements public.

# Short Selling

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Alternative mutual funds allowed to short sell securities with a market value of up to 50% of the fund's NAV subject to:

- (a) cap on short selling securities of a single issuer at 10% of NAV of the fund;
- (b) exception for cash cover; and
- (c) cap on amount of deposit with a single borrowing agent (other than the fund's custodian) at 25% of NAV of the fund.

Combined limit on Cash Borrowing and Short Selling of 50% of NAV of the fund.

Market Neutral / Absolute Return Strategies?

# Specified Derivatives

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Overall cap on the use of borrowing, shorts selling and specified derivatives transactions at 300% of NAV of the fund.

To determine the aggregate exposure, the fund must add up the following and divide by the fund's NAV:

- (a) the value of any outstanding loans;
- (b) the market value of its short positions; and
- (c) the aggregate notional value of its specified derivatives positions, minus the aggregate notional value of those specified derivatives positions that are 'hedging' transactions.

No 'approved credit rating' requirement for counterparties for specified derivatives transactions.

# Specified Derivatives (*cont'd*)

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If fund exceeds 300% cap on any day, the fund must, as quickly as commercially reasonable, take all necessary steps to appropriately reduce the exposure.

'hedging' means the entering into of a transaction, or a series of transactions, and the maintaining of the position or positions resulting from the transaction or series of transactions (a) if: (i) the intended effect of the transaction, or the intended cumulative effect of the series of transactions, is to offset or reduce a specific risk associated with all or a portion of an existing investment or position or group of investments or positions; (ii) the transaction or series of transactions results in a high degree of negative correlation between changes in the value of the investment or position, or group of investments or positions, being hedged and changes in the value of the instrument or instruments with which the investment or position is hedged; and (iii) there are reasonable grounds to believe that the transaction or series of transactions no more than offset the effect of price changes in the investment or position, or group of investment or positions being hedged, or (b) if the transaction or series of transactions, is a currency cross hedge.

# Blakes Investment Products & Asset Management Practice

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- Members of the Blakes Investment Products & Asset Management group are among the profession's most experienced lawyers in advising clients in the investment management industry, including portfolio managers, investment fund managers, investment dealers, wealth management companies, financial institutions, service providers such as prime brokerages, investors such as pension funds, as well as Canada's principal securities regulators.
- Specifically, we have played a leading role in structuring and implementing domestic and international funds, including open-end funds, closed-end funds, exchange-traded funds (ETFs), alternative mutual funds, flow-through funds, hedge funds, pooled funds, segregated funds, commodity pools and other complex structures, including exchange-traded notes (ETNs), undertakings for collective investment in transferable securities (UCITS), derivative-based transactions and other innovative financial products.
- Our team is particularly skilled in providing sophisticated advice on capital markets activities, including public and exempt offerings, listings of ETFs and ETNs on the Toronto Stock Exchange (TSX) and the NEO Exchange Inc. (NEO), compliance and registration matters, sales and marketing issues, continuous disclosure issues, and governance and regulatory matters, to some of the industry's best-known and most active participants. On behalf of these participants, we have advised on the launch of over 190 closed-end funds listed on the TSX. We also regularly act as part of multidisciplinary teams advising buyers and sellers in acquisitions and divestitures involving investment management businesses.
- In addition to advising many of Canada's leading financial institutions, Blakes has led the way in acting on behalf of foreign banks bringing structured note platforms to Canada and has advised with respect to the marketing and sale of UCITS products in Canada.
- In an era of dramatic regulatory change, we remain intimately involved in industry and regulatory initiatives and are committed to ensuring that our clients are attuned to the impact that these changes may have on their businesses. We have represented the Canadian Securities Administrators in the substantial reformulation of the securities regulations and policies. We have also advised the TSX and the NEO on the reformulation of policies and procedures for regulation-listed issuers.
- Focused on investment funds and asset management, a key advantage of our group is the seamless integration of specialized expertise relevant to clients in this sector, including corporate finance and securities regulation, tax, derivatives, banking, and financial institutions matters.

Thank you

