



**Municipal Finance
Authority of BC**



Prudent Investment of Municipal Reserves

& Additional Topics

Peter Urbanc, CEO
February 2020



This presentation is intended only for entities governed by the *Local Government Act* and/or *Community Charter* of British Columbia.

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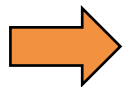
Standard Rule for Any Investor

- ✓ Have a plan
 - What investments should I consider? What is the money for? When do you need it?
- ✓ Manage your risks
 - Diversify your portfolio
 - Do your own homework, know what you own, and set limits
 - Be mindful of conflicts of interest – nobody cares more about your money than you do
 - Stick to what you know and do it on your own if possible
- ✓ Keep costs down
 - Every dollar you save in fees or commissions is a dollar earned
- ✓ Stick to your plan
 - Don't try to time the market
 - Keep your emotions in check - nobody ever makes money when they panic
 - Expect downturns
- ✓ Never chase returns
 - There is no free lunch: higher expected returns come with more risk



Eligible investments for BC's local governments (the "investment universe") are outlined in section 183 of the *Community Charter*:

- Securities of the Municipal Finance Authority;
- Pooled investment funds under section 16 of the *Municipal Finance Authority Act*;
- Securities of Canada or of a province;
- Securities guaranteed for principal and interest by Canada or a province;
- Securities of a municipality, regional district or greater board;
- Investments guaranteed by a chartered bank;
- Deposits in a savings institution, or non-equity or membership shares of a credit union;
- Other investments specifically authorized under this or another Act.

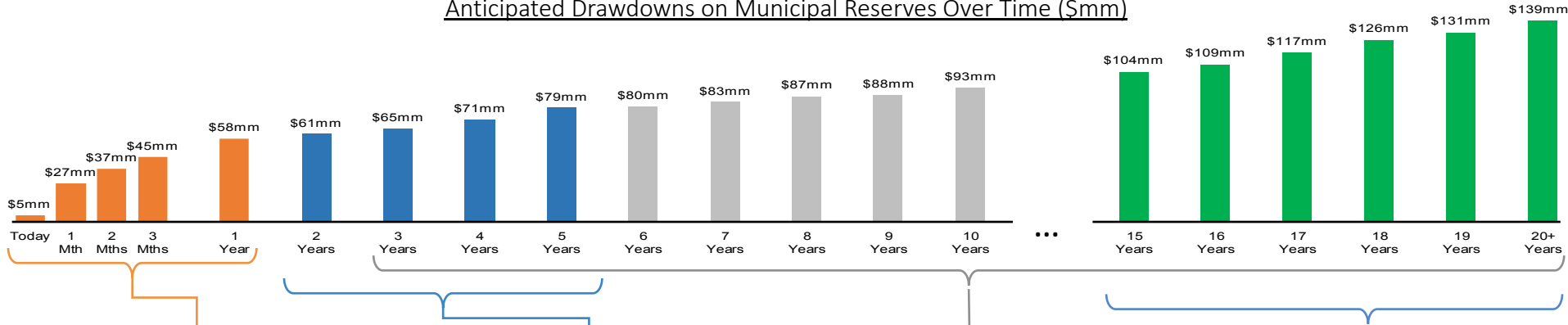


Diversification is key: strive to own all of the eligible investment categories listed above in order to reduce your portfolio's concentration risk

Have a Plan: What is the Money for? When Do I Need It?



Anticipated Drawdowns on Municipal Reserves Over Time (\$mm)



Short-term

Short - term anticipated uses of reserves are best managed with a diversified mix of short dated investments, including:

- Term deposits and GICs
- Short-term government bonds and high-quality banks deposits / GICs
- MFA Money Market Fund
- MFA HISA deposits

2 to 5 Years

Over an intermediate time horizon, the maturities of your investments should match your expected cash needs. Investment products which are appropriate for this time frame include:

- Government bonds and high-quality bank GICs which mature *before* anticipated use
- Locked-in bank deposits
- MFA Intermediate Fund
- MFA Bond Fund

3 Years +

If your cash flow projections do not require reserve funds for 3 or more years, longer maturity investments are an attractive option. Investment products which are suitable for a 3+ year time horizon include:

- Longer-dated government bonds, including strip bonds (coupons / residuals)
- MFA Mortgage Fund
- MFA Bond Fund

Long-Term

An investor's ability to target higher return (but also higher volatility) assets requires a longer investment time horizon and other carefully thought out considerations.

In addition to fixed income products, an investor with a long time horizon should consider a portfolio that includes equities and other assets.

Currently, BC Local Governments may not invest in equities or other asset classes. However, more choices for municipal investors has become an area of focus, as evidenced by UBCM Resolution B128.



A good investment policy provides guidance on portfolio construction and ongoing management. It helps maintain focus and is a critical tool in keeping the local government investment professional focused on the objectives. Councils or Boards approve the policy – **and then let staff manage the portfolio!**

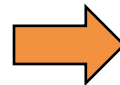
Components

- | | |
|---|-----------------------------------|
| 1. Policy | 10. Collateralization |
| 2. Scope | 11. Safekeeping & Custody |
| 3. Prudence | 12. Diversification |
| 4. Objective | 13. Maximum Limits and Maturities |
| 5. Delegation of Authority | 14. Internal Controls |
| 6. Ethics & Conflicts of Interest | 15. Performance Standards |
| 7. Auth. Financial Dealers and Institutions | 16. Reporting |
| 8. Auth. & Suitable Investments | 17. Investment Policy Adoption |
| 9. Investment Pools | 18. Glossary |

Objectives and Principles

Primary objectives are, in order of priority:

1. Preservation of Capital
Accomplished through placing funds with creditworthy institutions and diversification
2. Liquidity
Maintain sufficient liquidity to meet all operating and capital requirements
3. Return on Investment
Achieve the greatest return, taking into account risk constraints and liquidity needs (maximize risk-adjusted returns)



Be mindful of conflicts of interest when asking for advice in creating or altering your investment policies



Manage Your Risks: The Importance of Diversification

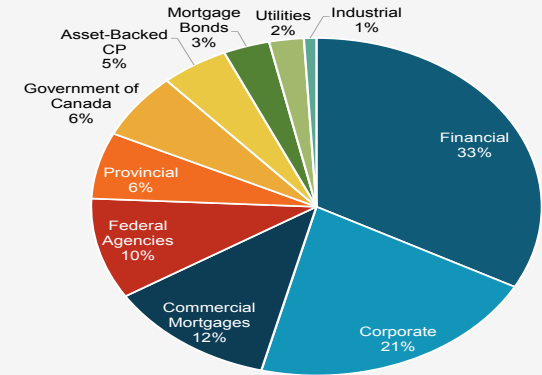
Portfolio A: Current Yield 2.2% ⁽¹⁾

- **\$100mm municipal reserve portfolio:**
 - \$20mm of cash, evenly deposited among 4 large well capitalized Canadian banks
 - \$15mm of bank deposits notes owned
 - **\$65mm invested in a diversified, laddered GIC portfolio, spread across 15 credit unions throughout Canada**
- *What is your sector exposure?*



Portfolio B: Current Yield 2.0% ⁽¹⁾

- **\$100mm municipal reserve portfolio:**
 - \$15mm of cash, evenly deposited among 2 large Canadian banks
 - \$15 million in GICs with 5 different credit unions
 - \$10mm in the MFA Money Market Fund
 - \$45mm in the MFA Bond Fund ⁽²⁾
 - \$15mm in the MFA Mortgage Fund
- *What is your sector exposure?*



Investors look to maximize “risk-adjusted” returns, not just returns.

Diversification is not free but it is a vital component of a healthy portfolio.

Manage Your Risks: Know What You Own and Set Limits



Example of a local government investment limits that prioritizes “Preservation of Capital”

This is not a recommendation – Policy and limits must be set based on your own circumstances

Portfolio Constraint by Credit Rating:

Rating	Maximum % Share of Total Reserves
AA- or higher [short-term rating R-1 (mid) or higher]	100%
A+/A/A- [short-term rating R-1 (low)]	75%
BBB+/BBB/BBB- or Unrated [short-term rating R-2 (high) or lower]	25%

Portfolio Constraint by Asset Type:

Asset Type	Maximum % Share of Total Reserves	Maximum Single Entity % of Total Reserves
MFA Pooled Investment Funds	Up to 100%	Range from 15% to 100% [1]
Federal Government	Up to 100%	Up to 100%
Provincial Governments	Up to 100%	Range from 25% up to 75% [2]
Local Governments	Up to 50%	Range from 10% up to 25% [2]
Financial Institutions	Up to 50%	Range from 10% up to 15% [2][3]

[1] Range based upon Pooled Fund type

[2] Range based on Credit Ratings

[3] Total holdings of a single financial institution shall not exceed 1.00% of the FI’s total deposits

Manage Your Risks: Know What You Own and Set Limits



More detailed limits within categories can be managed by staff – This is not a recommendation

Asset Type	Maximum % Share of Total Reserves	Maximum Single Entity % of Total Reserves
Total MFA Pooled Investment Funds	100%	N/A
MFA Money Market Fund	100%	N/A
MFA Intermediate Fund	100%	N/A
MFA Bond Fund	100%	N/A
MFA Mortgage Fund	15%	N/A
MFA Fossil Fuel Free Bond Fund	100%	N/A
Total Federal Government	100%	N/A
Government of Canada	100%	N/A
Agencies or Crowns of the Gov't of Canada	100%	N/A
Total Provincial Governments	100%	(see sub-categories)
Provincial Securities, Rated AA- or higher [short-term rating R-1 (mid) or higher]	100%	75%
Provincial Securities, rated A+ or lower [short-term rating R-1 (low) or lower]	75%	25%

...continued on next Slide

Manage Your Risks: Know What You Own and Set Limits



More detailed limits within categories can be managed by staff – This is not a recommendation

Asset Type	Maximum % Share of Total Reserves	Maximum Single Entity % of Total Reserves
Total Local Governments	50%	(see sub-categories)
Local Government, rated AA- or higher [short-term rating R-1 (mid) or higher]	50%	25%
Local Government, rated A+/A/A- [short-term rating R-1 (low)]	40%	20%
Local Government, rated BBB+/BBB/BBB- or Unrated [short-term rating R-2 (high) or lower]	25%	10%
Total Financial Institutions * (Chartered Banks, Savings Institutions & Credit Unions) (Investments Guaranteed by or Deposits in a Savings Institution)	50%	(see sub-categories) *
Chartered Banks	---	---
Chartered Banks, rated AA- or higher [short-term rating R-1 (mid) or higher]	35%	15%
Chartered Banks, rated A+ or lower [short-term rating R-1 (low) or lower]	20%	10%
Savings Institutions & Credit Unions (SICUs)	---	---
SICU, rated AA- or higher [short-term rating R-1 (mid) or higher]	20%	10%
SICU, rated A+/A/A- [short-term rating R-1 (low)]	15%	10%
SICU, rated BBB+/BBB/BBB- or Unrated [short-term rating R-2 (high) or lower]	10%	10%

* Total holdings of a single financial institution shall not exceed 1.00% of the FI's total deposits



Situation:

- A treasury professional from a large BC municipality was recently looking to buy \$2 million of a Province of Alberta 2.05% June 2030 bond from an investment advisor
 - This advisor had a long-standing relationship with the municipality and presented the treasury professional with an offer price of \$98.36 (or 2.22% yield) for the bond – **no commission was to be charged**
- The treasury professional asked MFA if this was a “fair” price
 - MFABC looked into where this bond trades, comparing the “retail” price to the “institutional” price
 - The “institutional” price for this bond was \$97.06 (or a yield of 2.33%) – this is where MFA could buy it
- The difference between the “retail” price and the “institutional” price of this bond amounted to a **hidden, undisclosed mark-up of \$26,000** to the investment advisor

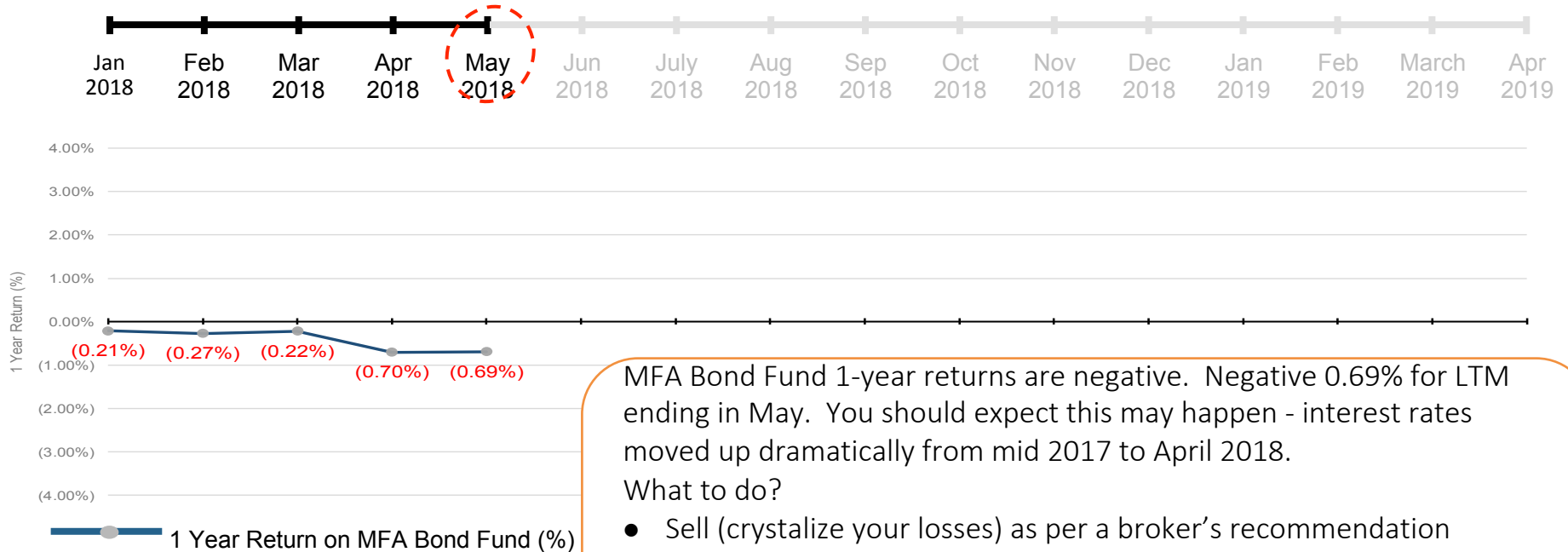


- Protect yourself
 - As a sophisticated investor it is up to you to do your due diligence, understand what you are buying, know who you are transacting with and protect yourself
- If you intend to buy/sell individual bonds, you must be able to verify prices you are being offered and seek best execution
 - MFA recommends investing in a market data subscription services (such as Bloomberg, CanDeal , Reuters) in order to gain access to real-time “institutional” pricing data
 - When buying or selling, always seek quotes from two dealers, if not more
- The example above provides a real-life example for the purchase of a plain vanilla provincial bond. We have seen similar mark-ups in deposit products and GICs offered by brokers. Can you imagine what the hidden commissions are in complicated structured note products – where the broker knows that you have very limited capacity to price the bond?
- If you do not have the tools in-house to value a security, **do not purchase it**. All assets in MFA pooled funds are purchased at the market price (no mark-ups) and managed for very low fees. These funds provide instant diversification into an appropriate mix of government and corporate securities.

Takeaways:



Timing the Market... May 2018



Source: PH&N, MFABC

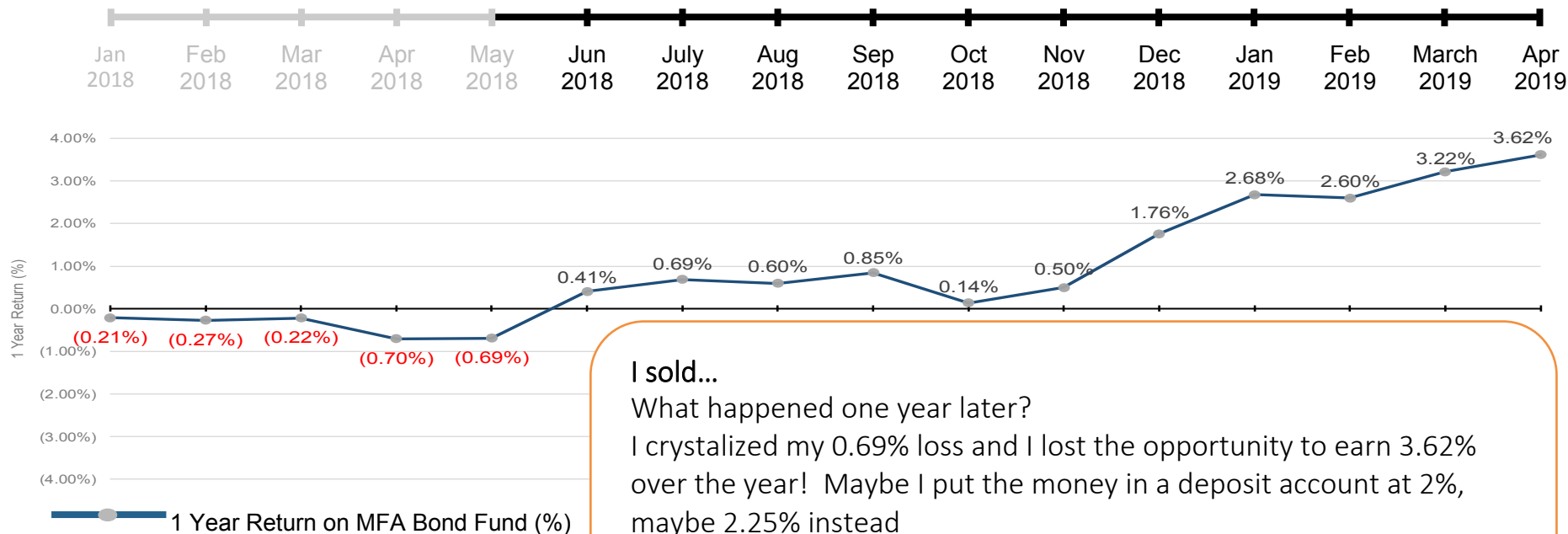
MFA Bond Fund 1-year returns are negative. Negative 0.69% for LTM ending in May. You should expect this may happen - interest rates moved up dramatically from mid 2017 to April 2018.

What to do?

- Sell (crystallize your losses) as per a broker's recommendation
- Or **stick to your plan** – maybe that plan involves holding 20% of your portfolio in a well diversified portfolio of bonds with slightly higher duration but with better long term expected returns than a shorter duration portfolio



Fast Forward 1 Year later...



I sold...
 What happened one year later?
 I crystallized my 0.69% loss and I lost the opportunity to earn 3.62% over the year! Maybe I put the money in a deposit account at 2%, maybe 2.25% instead
AND THE BROKER MADE MONEY NO MATTER WHAT HAPPENS TO YOUR PORTFOLIO!

Source: PH&N, MFABC

Prudent Investor Rules: Expanding Investment Alternatives



- Alberta & Ontario have adopted a prudent investor regime for local governments
- Those rules expand the assets that a local government can invest in to include any investment that is deemed “prudent.” For example, it may be “prudent” to acquire a type of security which generally has a longer holding period (such as equity) and match that asset with future reserve requirements.
- To manage these more complex portfolios, Ontario has adopted an independent board model. Alberta has limited use of “prudent” portfolios to its largest municipalities.
- September 2019: Burnaby’s resolution calling for expanded investment opportunities endorsed at the UBCM Convention
- The Ministry is studying the proposal
- A prudent investment approach makes sense if a local government earmarks a portion of its reserves as long-term in nature – for example, 10 years or longer
- In fact, investment professionals would argue that it would be imprudent not to invest reserves that are ‘long-term’ in a broad global asset portfolio with a higher expected investment return than a fixed income portfolio
- There is a very wide range of reserve pool sizes and investment expertise across BC’s local governments, so a thoughtful approach is critical



Meeting 2019 April 29
COUNCIL REPORT

FINANCIAL MANAGEMENT COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

SUBJECT: EXPANDING INVESTMENT OPPORTUNITIES

RECOMMENDATIONS:

1. THAT Council provide support for changes to the Community Charter to allow for expanded asset class investments under prudent investor rules.
2. THAT Council request support from other municipalities for the requested changes to the Community Charter.
3. THAT Council submit a resolution, as outlined in Section 4.1 of this report, to the Union of British Columbia Municipalities, as outlined in this report.

REPORT

The Financial Management Committee, at its meeting held on 2019 April 24, received and adopted the attached report requesting Council to support changes to the Community Charter to allow for prudent investor rules, thus expanding investment parameters and opportunities.

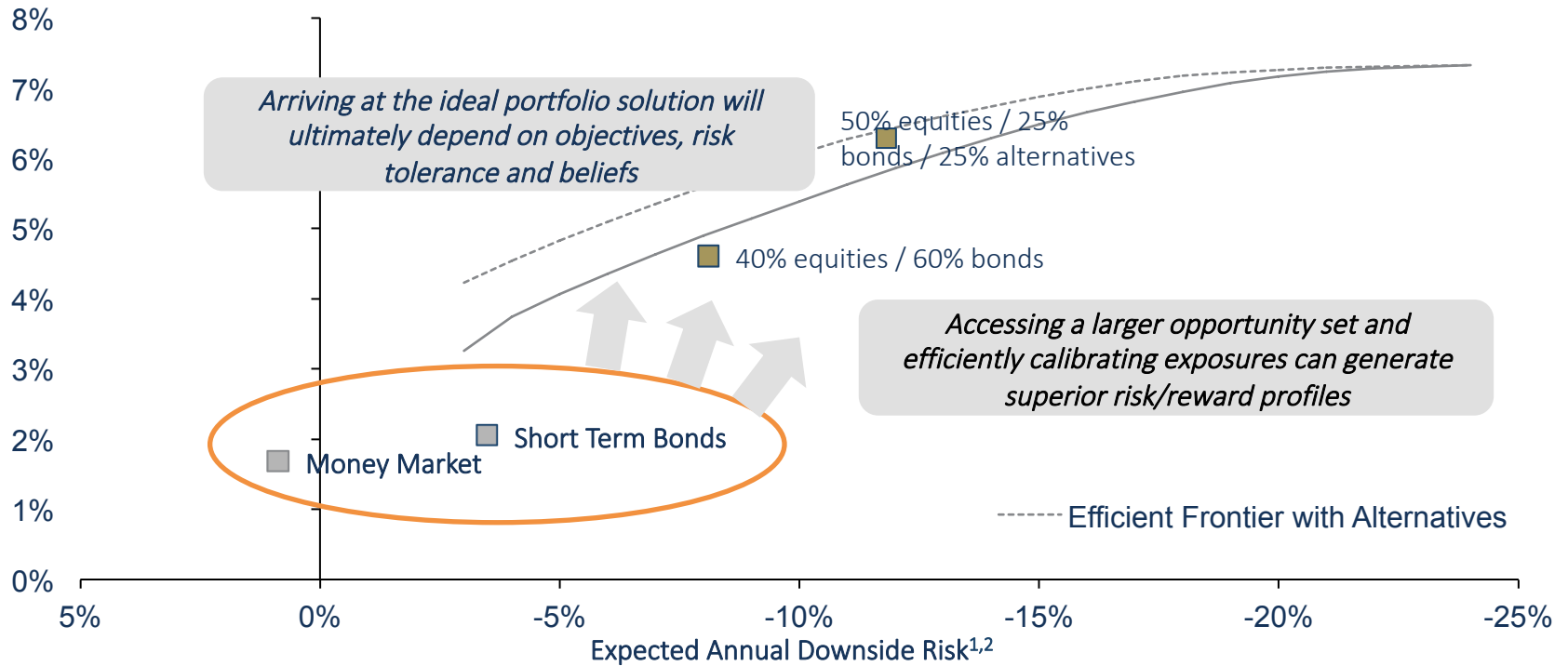
Respectfully submitted,

Mayor M. Hurley
Chair

Councillor S. Dhaliwal
Vice Chair

Copied to:

Diversification of Asset Allocation enhances Long Term Return Expectations



¹ Refer to appendix for modelling assumptions and disclosures.

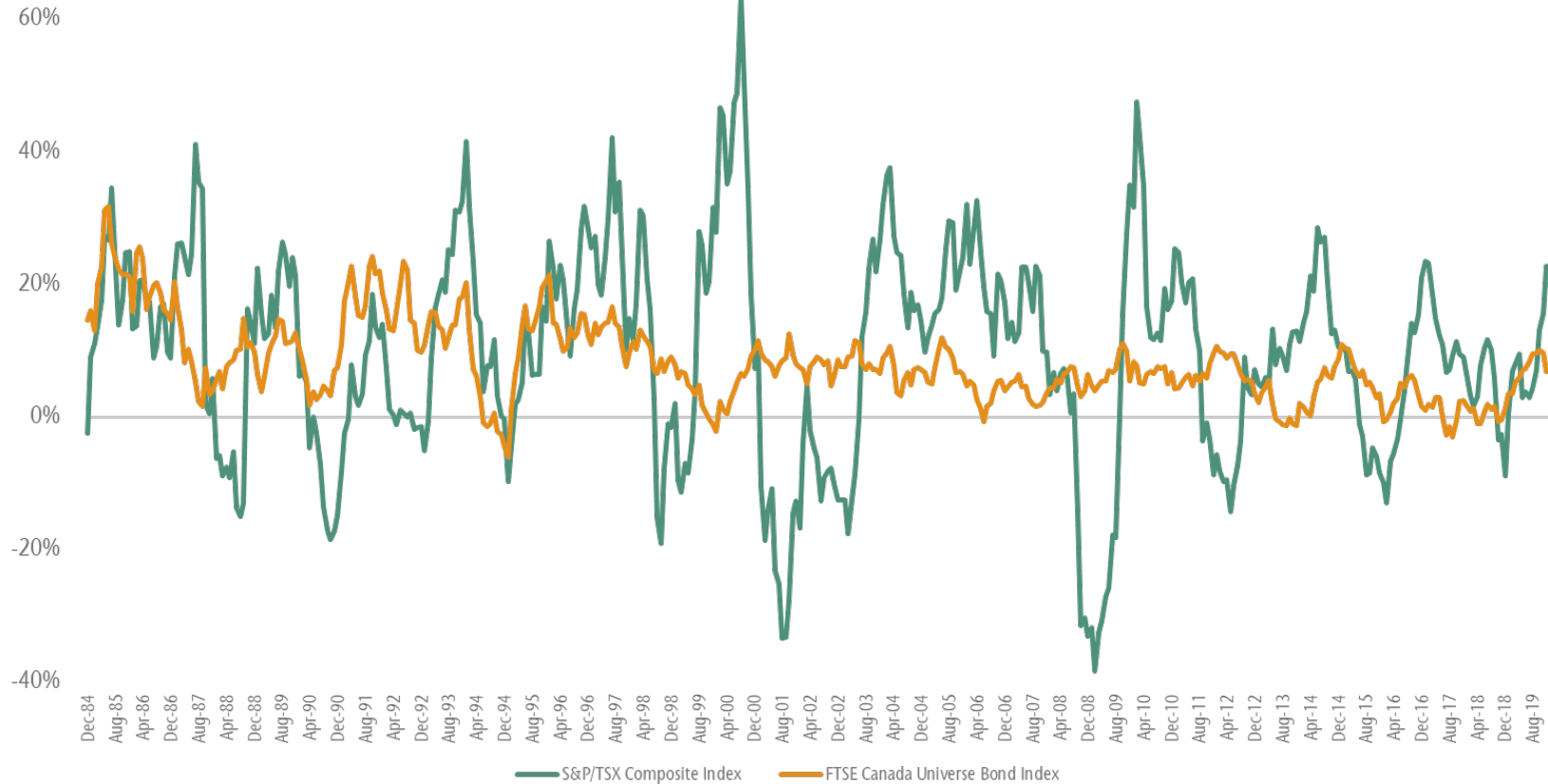
² CVaR95 which represents the expected loss during the worst 5% of return outcomes.

Hypothetical performance analyses are for illustrative purposes only and there is no guarantee that hypothetical returns or projections will be realized.

Year to Year Investment Returns are more Volatile for Stocks than in Bonds



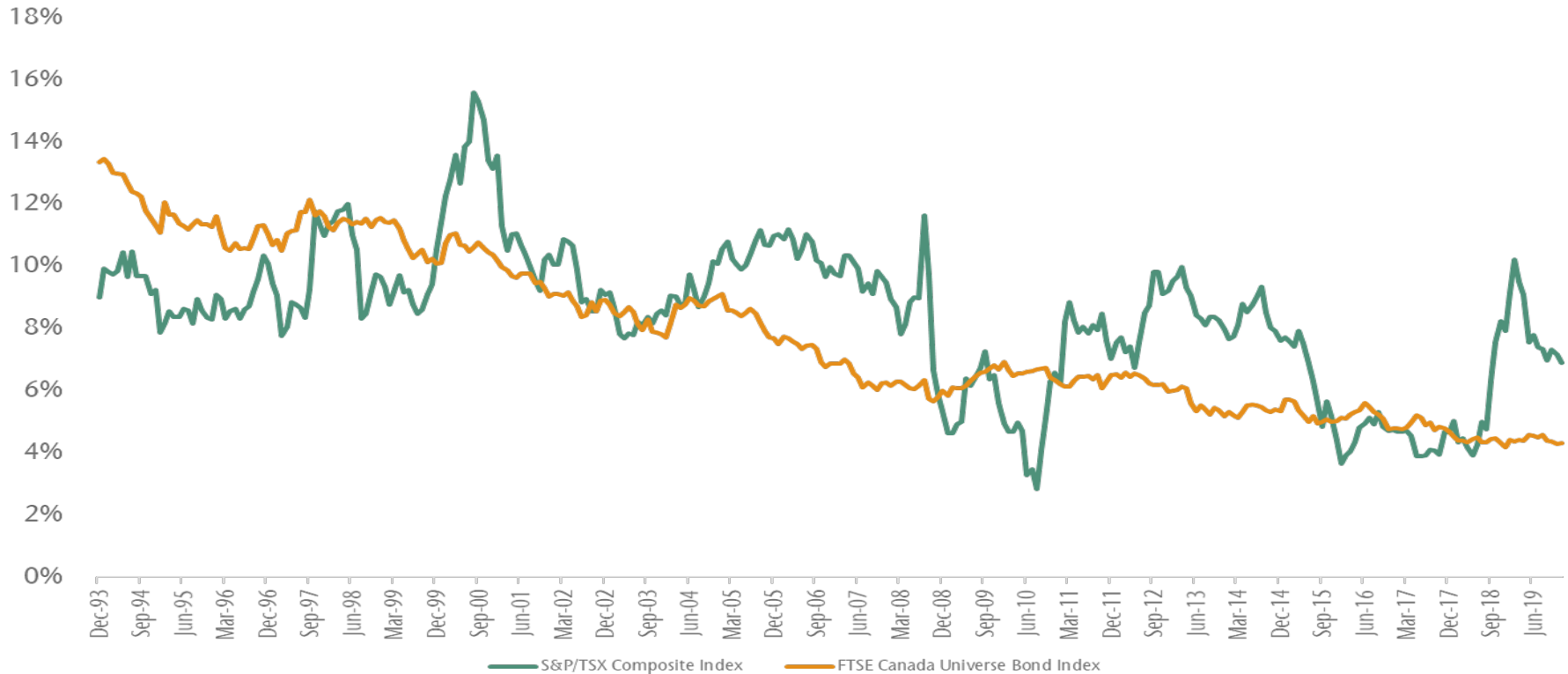
ROLLING 1-YEAR PERIODS



Over a 10 year Period, Investment Returns Become Positive



ROLLING 10-YEAR PERIODS



Asset Class Diversification Reduces Volatility and Increases Risk-Adjusted Returns



ROLLING 10-YEAR PERIODS





Municipal Finance Authority of BC

Socially Responsible Investing

Socially responsible investing, also known as sustainable, responsible, "green" or ethical investing, is any investment strategy which seeks to consider both financial return and social/environmental good to bring about social change

ESG Factors

ESG investing entails researching and factoring in environmental, social, and governance issues, in addition to the usual financials, when evaluating potential stocks for your portfolio

Impact Investing

Investing in projects or organizations that meet a set of criteria that may include meeting specific social or environmental outcomes. Most often, does not involved screening out companies or sectors

Fossil Fuel Free (FFF) Investing

Implies the outright exclusion of companies involved in extracting, processing and transporting oil, gas and coal from a mandated investment universe. Definitions of FFF may vary.

UN PRI

Signatories of the United Nations' Principles for Responsible Investment are proponents of responsible investing best practices. Signatories follow 6 key principles and incorporate those into their processes.

Socially Responsible Investing and Fossil Fuel Free Investing



- Several BC local governments have expressed interest in Socially Responsible Investing (SRI) via pooled funds offered by MFA
- SRI comprises a host of investment methodologies or strategies which aim to satisfy desired positive social outcome(s) in addition to realizing a return on investment. These outcomes are often measured under the lens of Environmental Social and Governance (ESG) factors.
- The SRI landscape is highly fragmented and complex. The investment industry, and a burgeoning consulting/research support subindustry, has not effectively promoted standardization of terminology or measurement.
- Our Clients' diverse needs and philosophies regarding the appropriate approach to SRI investing have made it impractical and expensive, for the time being, to develop broad-based SRI investment products
- Excluding Fossil Fuel related entities (i.e. FFF investing) is a common approach that many local governments want to employ (for instance, those local governments who have declared climate emergencies)
- MFA currently offers two Pooled High Interest Savings Accounts which provide an option for those interested in divestment or Fossil Fuel Free investment
- Given relative standardization of the definition of FFF, and asset-manager experience in developing cost-effective ways to screen-out FFF-related companies, MFA will likely be offering a Fossil Fuel Free Bond Fund in the near future
- As standardization improves and demand for certain strategies grow, MFA will continue to research new avenues for other SRI investment opportunities for BC's local governments, including Impact Investing (II) options which are gaining traction in the industry

Example of ESG factors: the UN's Sustainable Development Goals



The UN's Sustainable Development Goals have been gaining prominence as a common norms-based investment strategy



4 of MFA's 7 pooled funds may be considered socially responsible



	Pooled High Interest Savings Accounts	Money Market Fund	Intermediate Fund	Bond Fund	Fossil Fuel Free Bond Fund (available soon?)	Mortgage Fund
Key Features	<p>Provides Clients with alternatives to hold soon to be needed funds in a high-interest account offered by Schedule-1 Chartered Banks.</p> <ul style="list-style-type: none"> Offered through CIBC & National Bank CIDC Deposit Protection up to \$100K Interest paid monthly Yield net of all fees 	<p>Serves a similar purpose as the PHISA accounts, however provides diversification versus holding funds with a single entity.</p> <ul style="list-style-type: none"> Provides a high-quality yield advantage Currently fully invested in corporate money markets -attractive risk-adjusted incremental yield over similar-term gov't securities 	<p>The Intermediate Fund provides Clients with a diversified medium-term investment alternative. The Fund seeks a yield advantage through exposure to high-quality corporate credit.</p> <ul style="list-style-type: none"> Approximate 30% gov't credit, 70% corporate credit asset mix 	<p>Designed for local government reserves not needed for 2 – 5 years. This diversified product is slightly more defensive as it has a longer duration profile.</p> <ul style="list-style-type: none"> Approximate Asset Mix: 45% gov't credit, 45% corporate credit, 8% mortgage-backed securities, 2% cash 	<p>Designed for local government reserves not needed for 2 – 5 years. This diversified product is slightly more defensive as it has a longer duration profile.</p> <ul style="list-style-type: none"> Approximate Asset Mix: very similar to Bond Fund 	<p>Provides an alternative to the Bond Fund for reserves not needed in the immediate future. Seeks a yield advantage by investing in high-quality 1st mortgages on Canadian income producing commercial properties</p>
Investment Time Horizon	N/A	0 – 9 months	9 – 24 months	24 months – 5 years	24 months – 5 years	3 years +
Current Yield (%)	2.32 – 2.46%	1.96%	1.99%	2.05%	2.05% (TBD)	3.05%

Investment Time Horizon Increases



Exact composition of Funds subject to change in accordance with MFA's Pooled Investment Funds Investment Policies, Objectives, and Guidelines agreement with PH&N.

'Current Yield' as of December 31 2019 and represents the 1 year yield. Mortgage Fund yield is an estimate only.



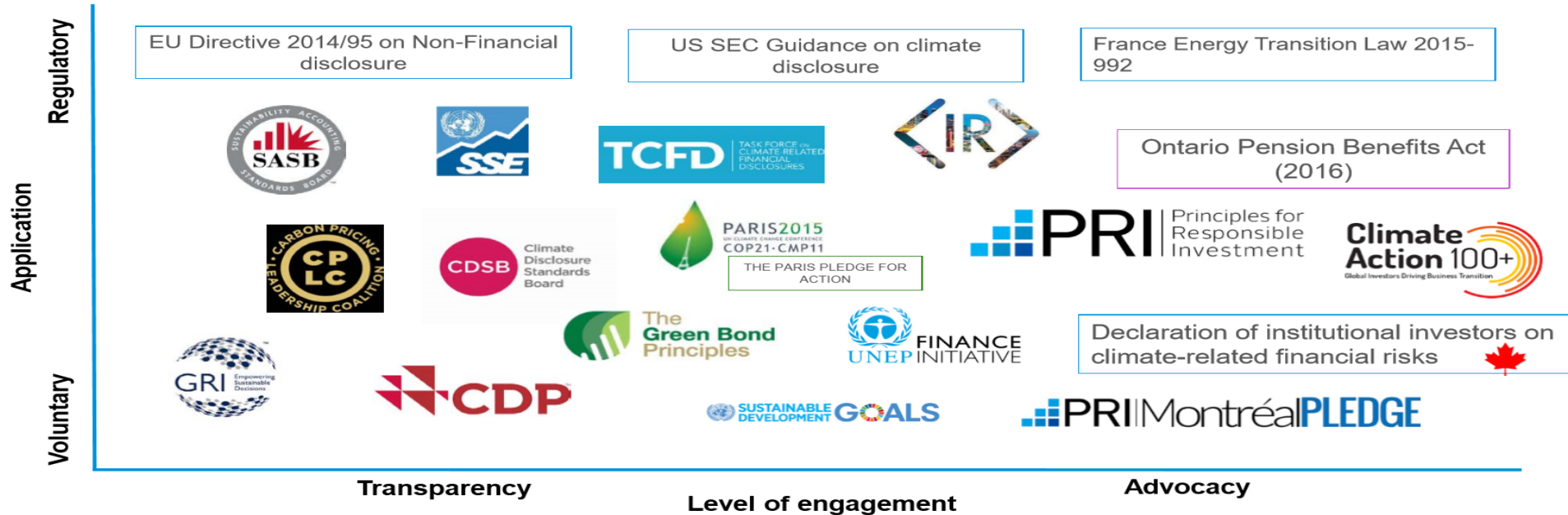
- Direct investments into government bonds – safest investments one can make but many local governments do not have the tools to manage efficiently
- Direct investments into Green Bonds issued by Federal Agencies, or Provincial or Municipal governments – are typically long-dated (often not suitable), have a low yield and not enough names yet to create diversified portfolios
- SRI-linked Principal Protected Notes (PPN) issued by Canadian banks – can local governments value them?
- Impact GICs offered by some credit unions – many already consider Credit Union GIC as socially responsible product – so it is unclear what benefits an Impact GIC provides to justify the additional costs
- **Some local governments' needs dwarf availability of good SRI opportunities**

The Wild Wild West: Many Reporting & Disclosure Standards are Being Developed



Excerpt from KPMG's 2019 Presentation: 'What are Common Trends in Sustainability Disclosure?'

Reporting landscape: initiatives driving ESG reporting



Making Decisions Based on ESG Criteria is Far More Complex than Meets the Eye



SUSTAINALYTICS ESG RISK RATING REPORT

Date Sep 20, 2018

QUALCOMM Incorporated

20.2 /100 Medium

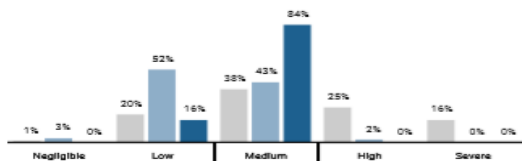
Communications Equipment | United States | NAS:QCOM



Rating Overview

The company is at medium risk of experiencing material financial impacts from ESG factors, due to its low exposure and average management of material ESG issues. Despite its management policies and programmes, the company has experienced a high level of controversies.

ESG Risk Rating Distribution

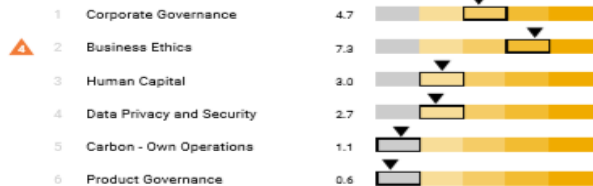


Relative Performance

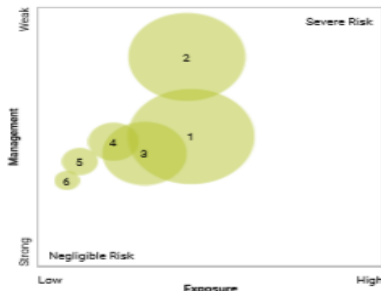
	Position (1st = lowest risk)	Percentile (1st = lowest risk)
Global Universe	2021 out of 9376	22nd
Technology Hardware (Industry)	187 out of 338	55th
Communications Equipment (Subindustry)	9 out of 49	17th

Attribution Analysis

Top Material Issues



△ Significant event



○ Circle size = Contribution to ESG Risk Rating

- 1 We start with exposure, where exposure to each material ESG issue is initially determined at the subindustry level.
- 2 Next, we look at the management dimension, which measures how well the company is mitigating its exposure.
- 3 For some companies, a portion of its risk may be considered unmanageable. For example, an oil company is not able to fully eliminate all its risks related to carbon emissions so that is factored out of the calculation.
- 4 For the portion of risk that is manageable, a company's performance is reflected by its policies, programs, practices and quantitative performance measures.
- 5 Controversies have a discounting effect on the company's management score, as they show that the company's programs and policies have not been completely effective and could lead to increasing risk.
- 6 Overall a company's ESG Risk Rating is calculated by adding the amount of unmanaged risk for each material ESG issue.



Measures companies' exposure to and management of material ESG risks

Exposure dimension of our ESG Risk Rating makes it forward-looking.



Focus on material ESG issues informs what companies are doing or not doing to manage risks effectively

Level of exposure for each company is based on multiple exposure factors.

Rates absolute ESG Risk, while allowing for relative, best-in-class analysis

ESG risks can be compared across subindustries, sectors, companies and regions.



Rigorous controversy research identifies and evaluates relevant material ESG issues

Discounting effect applied to management scores increases with event severity.



- Ascertaining the **'moral compass'** of our Clients is the first step to creating a broad-based pooled ethical investment solution. That process would take time; however, if we are successful, and common ground coincides with actual demand, we will be able to offer additional investment opportunities
- MFA has been analyzing a standard and inexpensive fossil fuel free exclusion screen, which eliminates securities of companies directly involved in the extraction, processing and transportation of coal, oil and natural gas. That screen has some impact on portfolio concentration and return characteristics, but still provides enough options to create a well designed fund with good risk-return characteristics. **Given a clear desire by some Clients for more FFF solutions, MFA will likely create a new FFF bond fund in early 2020**
- **Better disclosures and standardization of approaches** will lead to broader SRI options
- Interest in **Impact Investing**, in particular, is gaining momentum with clients and asset managers. Standardization of approaches within this segment is likely to provide MFA with workable solutions to broaden our ethical offerings in the long term
- **Impact Investing will not be embraced by all local governments** as it may allow investments into fossil fuel related companies. However, some local governments, and many experts, believe that providing capital to those FF companies who are contributing to solutions, is a key component (some say would say critical) to solving our carbon crisis

What Have We Learned?



Best investment practices call for a **Council/Director approved investment policy** to guide the overall objectives and risks of a local government's reserves portfolio

Preservation of capital through **diversification** of investment reserves into the broadest selection of asset categories possible, and picking the right **credit exposures** within those categories, should always be a top priority for government portfolios

Forecasting future cash flow needs is critical in allowing local governments to maximise risk-adjusted return

Do not be singularly focused on the return of your local government's reserve portfolio – always think about the **risk-adjusted return**

Higher returns are achievable under a **prudent investor regime**. For governments who have large portfolios with long time horizons, accessing higher return assets makes sense if done carefully: due to the higher year to year volatility of those returns, and human nature, **strict segregation** of long-term reserves is critical

Socially Responsible Investing landscape is highly complex and developing very quickly with many options emerging. Be mindful of “greenwashing”, higher costs and complexity, and whether a SRI investment option aligns with your community's views and needs



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CELEBRATING

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