



THE INVESTMENT  
FUNDS INSTITUTE  
OF CANADA

L'INSTITUT DES FONDS  
D'INVESTISSEMENT  
DU CANADA

# VOLUNTARY GUIDELINES FOR FUND MANAGERS REGARDING FUND VOLATILITY RISK CLASSIFICATION

August 2014

(Data updated to December 31, 2013)

## IMPORTANT NOTICE TO FUND MANAGERS AND DEALERS:

The following voluntary guidelines may be used by Fund Managers to complement their risk disclosure requirements under National Instrument 81-101F1. Note that this document is only intended for use by Fund Managers to help disclose information to their unitholders regarding the historic volatility of the mutual funds that they manage. It is not intended for use as a substitute for undertaking a proper and complete suitability assessment by advisors, compliance officers or retail investors.

*For further information about this document please contact:*

*Alykhan Surani – Manager, Statistics & Research (asurani@ific.ca | 416-309-2312)*

*Jon Cockerline – Director, Policy & Research (jcockerline@ific.ca | 416-309-2327)*

# CONTENTS

<b>I.</b>	<b>INTRODUCTION.....</b>	<b>2</b>
	Message to Dealers and Compliance Officers.....	2
<b>II.</b>	<b>INTENDED USE OF GUIDELINE CLASSIFICATIONS .....</b>	<b>3</b>
<b>III.</b>	<b>APPLICATION OF THE GUIDELINES.....</b>	<b>4</b>
	Methodology.....	4
	Flowchart for applying guidelines.....	6
	Statement of Use .....	7
	Adapting volatility risk classifications for use in Fund Facts .....	8
	Maintenance of the guidelines .....	8
<b>IV.</b>	<b>HOW THESE GUIDELINES WERE DEVELOPED .....</b>	<b>9</b>
	a) Objectives.....	9
	b) Analysis .....	9
	c) Selection process .....	10
	d) Use of benchmark indices .....	10
	e) Risk measure .....	10
	f) Time period of the risk measure.....	11
	g) Volatility risk categories.....	11
	<b>Appendix 1: Volatility Classification, Asset Categories and Risk Scale .....</b>	<b>12</b>
	Notes to volatility classifications.....	15
	<b>Appendix 2: Standard Deviation – Annual (Avg) at Dec. 31, 2013 .....</b>	<b>16</b>
	<b>Appendix 3: Standard Deviation – Index at Dec. 31, 2013 .....</b>	<b>17</b>
	<b>Appendix 4: Standard Deviation - Benchmark (Avg Rolling 3/5 Year) at Dec. 31, 2013 ....</b>	<b>18</b>
	<b>Appendix 5: Example of Appropriate Use of IFIC Guidelines.....</b>	<b>19</b>
	<b>Disclaimers:.....</b>	<b>21</b>

## I. INTRODUCTION

The following voluntary guidelines (“guidelines”) may be used by fund managers to complement their risk disclosure requirements under National Instrument 81-101F1 – Mutual Funds Prospectus Disclosure (in the ‘Who Should Invest in This Fund?’ section of the Simplified Prospectus). NI 81-101F1 requires disclosure of “*risk*” in the Simplified Prospectus.

While the fund manager may set out a range of risks in a prospectus, generally one of those risks addresses volatility risk. To provide guidance on how that risk could be classified, the Fund Risk Classification Task Force (the “Task Force”) of The Investment Funds Institute of Canada (“IFIC”) was established to develop guidelines to assist **fund managers** regarding the classification and comparisons of the volatility risk associated with different types of mutual fund categories. These guidelines are designed to assist with standardizing terminology, categories, and volatility risk descriptions of funds.

Standard deviation bands (“SD Bands”) have been defined for each fund classification and respective Canadian Investment Funds Standards Committee (“CIFSC”) category to categorize a fund’s risk. CIFSC categories have been assigned to each of the five bands based on the rolling average historical standard deviation of the most closely related benchmark index to the CIFSC category. The average (since inception) of the rolling standard deviation has been used to ensure that the assignment of risk bands and the assignment of CIFSC categories within each risk band are enduring.

These guidelines are not mandatory; however, fund managers that have used these guidelines in the past and intend to continue using them should implement the new classification process shown in this update as soon as it is feasible to do so. **Fund managers are reminded to seek their own legal counsel when determining their obligations of disclosure under NI 81-101F1.**

### ***Message to Dealers and Compliance Officers***

**These guidelines are not intended to be a substitute for a fund dealer’s due diligence and know-your-client best practice procedures. Dealers and salespersons must continue to apply those best practices to assess and ensure the suitability of each investment recommended for each client.**

## II. INTENDED USE OF GUIDELINE CLASSIFICATIONS

The guidelines presented in this document are only intended to help fund managers apply consistent volatility classification methodology and provide risk disclosure for each fund. Fund companies are required by NI 81-101F1 to set out the “*risk*” classification for each fund in the fund’s prospectus.

This document is intended for the use of **fund managers**. The guidelines should not be used by dealers and their staff in substitution of comprehensive suitability reviews or for portfolio construction purposes. These guidelines are simply intended to improve the consistency and clarity of volatility classifications for purposes of complying with disclosure required in fund prospectuses. **It is not the volatility of a single fund, but that of the investor’s entire portfolio, that should be the focus of the investor, dealer or advisor.**

The guidelines were intended to:

- Introduce a consistent methodology for volatility risk classification by mutual fund managers;
- Improve comparability of volatility risk classification across fund companies;
- Improve volatility risk disclosure in the fund prospectus; and
- Provide a quantitative framework that may be used for assessing historical fund volatility.

The guidelines provide an explanation of the methodology, the categories of classification, and the associated volatility classification for each fund category. The guidelines also set out how this classification system may be applied by fund managers in assessing the volatility risk associated with their funds and address the classification categories for alternative funds (non-81-101 prospectused funds) or non-standard investment strategies.

### III. APPLICATION OF THE GUIDELINES

#### *Methodology*

The following steps detail how to implement the guidelines<sup>1</sup>:

1. If the fund in question does not have at least three years of monthly return history, the benchmark index that most closely resembles the investment mandate or strategy of the fund may be used as a proxy (with appropriate disclosure).
2. Determine the fund's average annual standard deviation for each cumulative period going back 10 years (if available) using the formula below. Compare these results to the appropriate index in **Appendix 2**. If the fund's standard deviation for each period does not differ materially from the appropriate index, categorize the fund using the risk band that contains the appropriate CIFSC category.

$$\sigma = \sqrt{\frac{1}{n-1} \sum (R_i - \bar{R})^2} \times \sqrt{12}$$

$\sigma$  = annual standard deviation

n = number of months

$R_i$  = investment return in month i

$\bar{R}$  = average monthly investment return

3. If the fund's standard deviation for each period differs materially from the appropriate index, determine the average (since inception) of the rolling three- and/or five-year standard deviations for the fund. Use of the average (since inception) of rolling five-year standard deviations should result in a more stable volatility risk classification over time. Even if the fund's standard deviation for each period does not differ materially from the appropriate index, we suggest that fund managers complete this step.
4. Compare the fund's average (since inception) three- and/or five-year standard deviation to the SD Bands as presented in **Appendix 1** in order to determine the appropriate volatility classification.
5. Consider placing the fund in a higher or lower volatility classification, as appropriate, if:
  - a) the fund's average (since inception) rolling three- and/or five-year standard deviation is not within the SD Band indicated for that fund's particular CIFSC category; or
  - b) the fund's standard deviation differs materially from a benchmark index proxy due to particular manager style, process, or other qualitative factors.
6. Repeat this analysis each year prior to prospectus renewal to ensure that fund volatility risk classifications remain up-to-date and appropriate. This analysis should be repeated earlier if there has been a material change to the fund's investment strategy and/or investment objective.
7. Fund managers should be consistent with the methodology that they use each year to classify their funds.

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<sup>1</sup> Please refer to Appendix 5 for an example of appropriate use of the Guidelines.

8. Where fund managers deviate from the above-described approaches, the reasons for deviating should be documented (in the fund's prospectus) in order to accurately disclose their risk classification methodology and answer any inquiries from stakeholders.

Qualitative Factors:

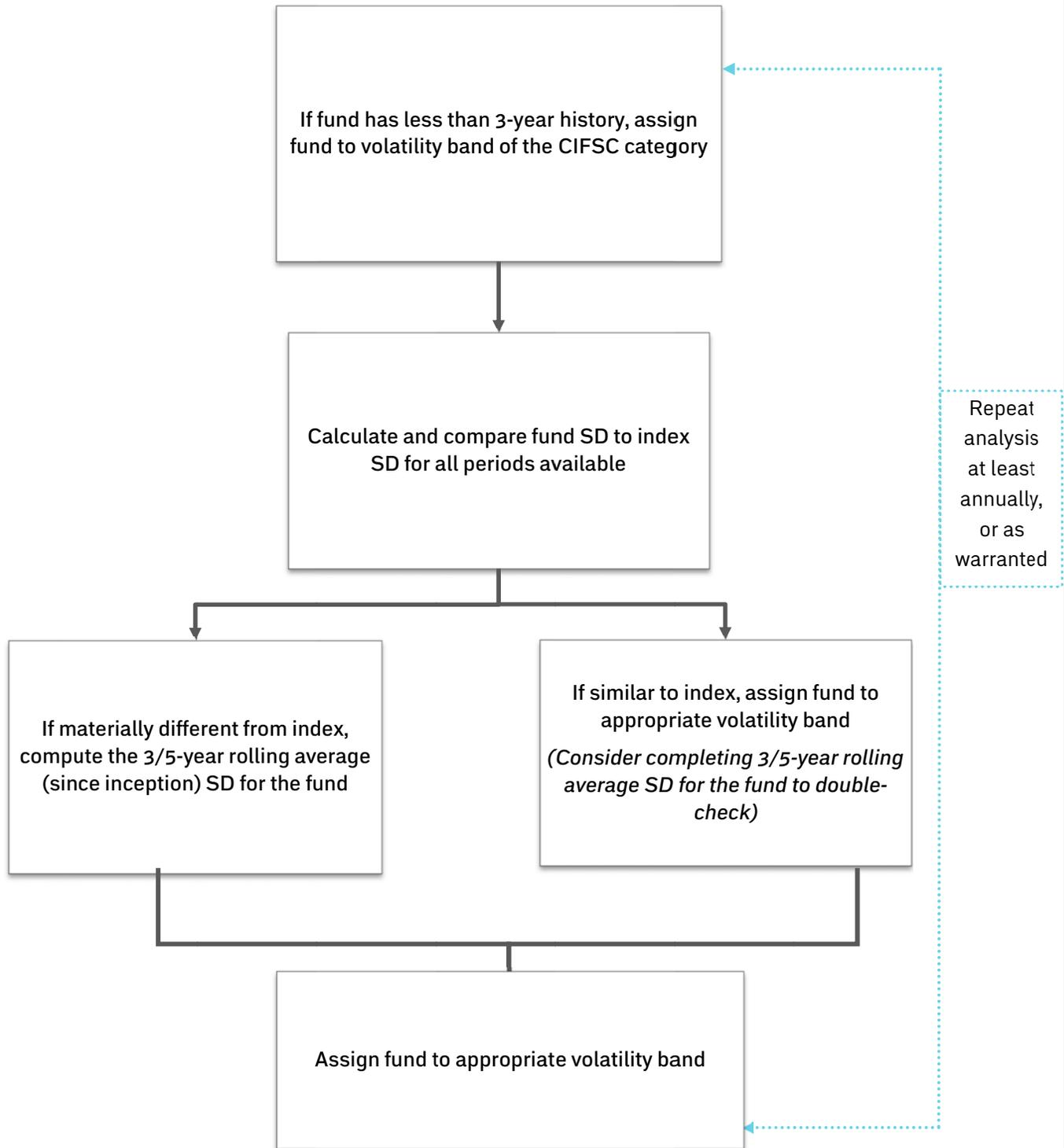
There are a number of other risk factors that may be considered, in addition to the volatility risk measure, to obtain a complete assessment of a fund's risk. For example, alternative asset classes are subject to special risks – they may be more difficult to price and are likely to experience large changes in valuation during periods of market instability.

Other risks that may be considered when classifying funds include (but are not limited to): market risk, credit risk, sector risk, corporate risk, interest rate risk, currency risk, political risk, counterparty risk, liquidity risk, regulatory risk, and inflation risk, among others.

The following qualitative factors should be considered and may lead a fund manager to change a fund's risk rating (note: these are not the only factors and are intended only as an illustration):

- Illiquidity risk (i.e. fund would take a number of days or even years to trade to cash);
- Sector concentration (e.g. two GIC sectors comprising greater than 70% of a broad based fund);
- Volatility target: the fund is designed to achieve a lower (or higher) standard deviation profile than the broad market;
- Ability of the fund to short-sell securities;
- Ability of the fund to use leverage;
- Ability of the fund to use derivatives that are in line with the NI 81-102 definition of hedging (excluding currency hedging).

**Flowchart for applying guidelines**  
(please refer to Appendix 5 for an example)



Fund managers have the discretion to classify a fund either higher or lower than the volatility category indicated by the guidelines. This should be done in the interest of making full, true and plain disclosure of all material facts relating to the mutual funds being offered, as qualitative factors should also be applied to any quantitative results in order to ensure full, true and plain disclosure.

*Example: Fund manager understands that an aggressively-managed Canadian equity fund is likely to be more volatile, or more risky than the average Canadian equity fund or the Canadian equity benchmark. For full, plain and true disclosure, it may be appropriate to classify that fund at a higher volatility category than that suggested by these guidelines. A fund manager should examine the style, security selection process, or other qualitative factors of their fund in addition to the standard deviation in order to make this determination.*

Similarly, because certain funds are difficult to compare to a standard benchmark (i.e. hybrid funds), it is recognized that some flexibility in the assignment of volatility category must be given to fund managers.

Fund managers are not required to incorporate these guidelines as a component of their internal fund risk assessment processes. Fund managers who fully adopt these guidelines into their risk classification methodologies must use the Statement of Use shown below when referring to these guidelines in addition to other required disclosures. Fund managers who adopt these guidelines only in part should modify this Statement of Use as appropriate. It is each fund manager's responsibility to ensure full, true and plain disclosure in compliance with all applicable regulatory requirements.

### **Statement of Use (Samples of Appropriate Reference)**

#### **Prospectus**

***“The methodology used to determine the volatility risk ratings of the funds for purposes of disclosure in this prospectus is the methodology recommended by the Investment Funds Institute of Canada (IFIC). IFIC concluded that the most easily understood form of risk in this context is historical volatility risk as measured by the standard deviation of fund performance. However IFIC recognizes that other types of risk, both measurable and non-measurable, may exist. It is also important to note that a fund’s historical volatility may not be indicative of its future volatility.”***

#### **Press Releases**

***“[Firm X] follows a risk classification methodology based on the approach recommended by the Investment Funds Institute of Canada using both quantitative and qualitative considerations conducted on an annual basis.”***

**Fund managers that do not use the IFIC Guidelines as set out in this document must describe, in the prospectus or press release, how their methodology differs from the IFIC Guidelines.**

### ***Adapting volatility risk classifications for use in Fund Facts***

In October 2010, the Canadian Securities Administrators (CSA) began the implementation of Point of Sale disclosure for mutual funds (Stage 1). Fund managers were required to identify the fund's investment risk level on the Fund Facts document using a five category scale with the following category nomenclature - Low, Low to Medium, Medium, Medium to High, and High.

The IFIC Fund Risk SD bands have a direct translation to an investment risk category in the Fund Facts document as follows:

<b>Standard Deviation</b>	<b>CSA Fund Facts Investment Risk Scale</b>
0 – 6.0	Low
6.0 – 11.0	Low to Medium
11.0 – 16.0	Medium
16.0 – 20.0	Medium to High
>20.0	High

### ***Maintenance of the guidelines***

- This document will be reviewed annually and updated as appropriate.
- IFIC's Industry Analytics Working Group will direct the Fund Risk Classification Task Force to ensure that the fund categories, volatility classifications and standard deviation bands continue to accurately reflect the industry.
- The Task Force will assess the continued applicability and reasonableness of the SD Bands as defined.
- The Task Force will assess the continued applicability and reasonableness of the three- and five-year time periods.

## IV. HOW THESE GUIDELINES WERE DEVELOPED

### a) Objectives

The Task Force established a subcommittee to review various options for categorizing overall fund volatility risk for the purposes of meeting the Simplified Prospectus and Fund Facts disclosure requirements. The subcommittee's goal was to recommend a method for measuring and categorizing volatility for various asset categories.

There were two essential requirements for this categorization:

- Sufficient categories are needed to adequately differentiate between different fund types, but the number of categories must also be limited in order to facilitate understanding, acceptance and comparability across funds; and
- The solution should help fund managers disclose information about this risk in an unambiguous and understandable way to investors.

The subcommittee considered a wide range of ways to measure risk or volatility of a fund: standard deviation, downside deviation (semi-variance), value at risk, risk attributes (for example, political risk, currency risk, derivative risk, among others), and risk/return measures such as Sharpe and Sortino ratios.

Standard deviation met the subcommittee's criteria as an unambiguous and relatively well-established and well-understood measure of volatility risk. Some industry observers have argued that upside volatility is also important and should be included in a total risk analysis. Standard deviation has broad support in the industry as a method for measuring total return volatility.<sup>2</sup> Both upside and downside risk are captured by standard deviation. Standard deviation provided a quantitative framework for assessing fund volatility; which also allowed qualitative factors to be considered to ensure full disclosure.

### b) Analysis

The subcommittee then prepared a volatility analysis using the following methodology:

1. A broad range of market indices and comparative benchmarks was selected to represent the different asset categories available to investors. The lists of indices and benchmarks are provided in **Appendices 2 and 3**. For consistency, all non-Canadian indices are denominated in Canadian dollars;
2. The subcommittee calculated standard deviation for these indices and benchmarks over rolling one-, three-, five-, ten-, twenty- and thirty-year periods (where data permitted). The averages of the rolling time periods were then calculated. The data results and graphs are captured in **Appendices 2 and 3**. Using rolling time frames avoided end-date sensitivity in the data. The

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<sup>2</sup> See for example, Clare, Andrew, "Developing a Risk Rating Methodology," *Joint Association of British Insurers (ABI) and Investment Management Association (IMA) Research Paper, 2010*, and "CESR's guidelines on the methodology for the calculation of the synthetic risk and reward indicator in the Key Investor Information Document," *Committee of European Securities Regulators*, July 1, 2010.

subcommittee calculated the average annual standard deviation for all indices over 1-year through 10-year periods for funds that have been in existence for less than 10 years;

3. The subcommittee focused on three- and five-year time periods, as these were considered to represent a typical investor time horizon. The subcommittee ensured that any conclusions drawn from these time periods were supported by longer-term data; and
4. The risk analysis was compiled using data supplied directly by index providers.
5. There appeared to be some natural breakpoints in the data around major asset classes:
  - Cash equivalent and Short-Term Fixed Income,
  - Fixed Income,
  - Balanced,
  - Equity - this was the broadest group, consisting of sectoral and geographic categories.

### **c) Selection process**

The subcommittee was left with three options from which to select:

1. categorize fund volatility according to the standard deviation of the benchmark which best represents the fund's expected performance;
2. define absolute standard deviation breakpoints (for example, annualized standard deviation of less than 5% over rolling three-year periods would be defined as low risk); or
3. utilize standard deviation as a first sort of risk. Apply a further overlay of the fund's downside risk, or exposure to various other sources of risk (for example, currency, political, concentration, etc).

The subcommittee recommended the option to *categorize broad asset class volatility based on historical standard deviations of applicable benchmarks.*

### **d) Use of benchmark indices**

Common or standard benchmarks were recommended as proxies to evaluate the volatility risk for different types of mutual funds in order to establish standard deviation risk bands for various CIFSC categories. The use of benchmarks provided a long time series for analysis, and provided a solution for assessing the volatility risk associated with new funds.

### **e) Risk measure**

While any single risk measure had limitations, standard deviation was recommended as an acceptable quantitative measure of volatility risk.

Standard deviation met the criteria of being unambiguous and relatively well-established and well-understood as a measure of volatility risk. Both upside and downside volatility risk were captured by standard deviation.

*Standard deviation: a measure of the dispersion of a set of data from its mean - the more widely dispersed the data points, the higher the implied volatility, and thus, the higher the deviation. Standard deviation is a common statistic used to measure the volatility (risk) of an investment.*

Any risk factor, whether it be currency risk, derivative risk, etc., will somehow affect the unit price and therefore, the fund's performance, making it a measurable risk. If the risk is 'priced into' the daily unit price, it will also be 'priced into' the fund's performance and, therefore, included in the standard deviation of the fund's performance. It must always be remembered that standard deviation is a backward-looking measure. As historical performance may not be indicative of future returns, a fund's historical volatility may not be indicative of its future volatility.

**f) Time period of the risk measure**

Both a rolling historical average of three- and five-year measures of standard deviation were used to analyze the volatility of benchmark indices in order to determine SD Bands.

The use of the two time periods not only provided a check to ensure one measure was not an anomaly, but added to the robustness of the analysis. Using the average of rolling periods addressed concerns regarding end-point sensitivity and was based on the experience of fund companies that investors typically hold mutual funds for three to five years.

**g) Volatility risk categories**

As Fund managers use the same nomenclature for the categories of volatility risk, this would allow for greater clarity and better disclosure to investors. Fund classifications were developed according to the SD bands listed in **Appendix 1**, and the following five categories of volatility risk:

1. Low
2. Low to Medium
3. Medium
4. Medium to High
5. High

## **Appendix 1: Volatility Classification, Asset Categories and Risk Scale**

<b>Asset Categories<sup>*</sup></b>	<b>SD Band</b>	<b>Volatility Classification</b>
Canadian Money Market (must have fixed unit price) U.S. Money Market (must have fixed unit price) Canadian Synthetic Money Market (must have fixed unit price) Canadian Fixed Income Canadian Short-Term Fixed Income	<b>0-6.0</b>	<b>Low</b>
2015 Target Date Portfolio <sup>1</sup> 2020 Target Date Portfolio <sup>1</sup> 2025 Target Date Portfolio <sup>1</sup> 2025+ Target Date Portfolio <sup>1</sup> Canadian Equity Balanced Canadian Fixed Income Balanced Canadian Inflation Protected Fixed Income Canadian Long Term Fixed Income Canadian Neutral Balanced Global Equity Balanced Global Fixed Income Global Fixed Income Balanced Global Neutral Balanced High Yield Fixed Income Tactical Balanced <sup>1</sup>	<b>6.0-11.0</b>	<b>Low to Medium</b>

<sup>\*</sup> Asset categories come from the Canadian Investment Funds Standards Committee as of March 31, 2014 ([www.cifsc.org](http://www.cifsc.org)).

Asset Categories <sup>†</sup>	SD Band	Volatility Classification
Canadian Dividend & Income Equity Canadian Equity Canadian Focused Equity European Equity Global Equity International Equity North American Equity U.S. Equity	<b>11.0-16.0</b>	<b>Medium</b>
Asia/Pacific Equity Canadian Focused Small/Mid Cap Equity <sup>2</sup> Canadian Small/Mid Cap Equity Financial Services Equity Global Small/Mid Cap Equity <sup>2</sup> Health Care Equity <sup>2,3</sup> Real Estate Equity <sup>2</sup> U.S. Small/Mid Cap Equity	<b>16.0-20.0</b>	<b>Medium to High</b>
Asia Pacific ex-Japan Equity Emerging Markets Equity Greater China Equity Labour-Sponsored Venture Capital <sup>4</sup> Precious Metals Equity Natural Resources Equity <sup>5</sup> Energy Equity <sup>5</sup>	<b>&gt;20.0</b>	<b>High</b>
Alternative Strategies <sup>6</sup> Japanese Equity <sup>7</sup> Miscellaneous – Income & Real Property <sup>8</sup> Passive Inverse/Leveraged Commodity Geographic Equity <sup>8</sup> Sector Equity <sup>8</sup> Miscellaneous – Other <sup>8</sup> Miscellaneous – Undisclosed Holdings <sup>8</sup>	<b>N/A</b>	<b>N/A</b>

*Managers may classify a fund with a higher or lower volatility classification than appears in the guidelines as qualitative factors should also be applied to any quantitative results in order to ensure full disclosure.*

*It is recognized that managers must be given the latitude to classify a fund either higher or lower than the volatility category indicated by the guidelines, in the interest of making full, true and plain disclosure of all material facts relating to the mutual funds being offered.*

## **Notes to volatility classifications**

- 1 Target-Date Portfolios and Tactical Balanced funds should be compared to the most relevant benchmark depending on the asset allocation of the particular fund. Fund managers should also consider utilizing a custom benchmark for these funds.
- 2 Although the data for these categories suggests that they should be placed in the Medium volatility risk band, the Task Force recommended that, due to the narrow focus – either in terms of market cap or sector - of the funds in these categories, placement in the Medium to High volatility risk band would be more appropriate.
- 3 As of March 31, 2014, CIFSC voted to terminate the Health Care Equity category. Funds will be reclassified into the Sector Equity category.
- 4 Labour-Sponsored Venture Capital — while a suitable benchmark for this category does not exist, these funds are typically regarded as high volatility vehicles due to the nature of the investments and the inherent risk in venture capital investments.
- 5 Although the data for the Natural Resources Equity category suggests that it should be placed in the Medium to High volatility risk band, the Task Force recommended that, due to the narrow focus – either in terms of market cap or sector - of the funds in this category, placement in the High volatility risk band would be more appropriate. As of March 31, 2014, a new Energy Equity category was split out of the Natural Resources Equity category (due to the clear divide between funds focused primarily on the energy sector versus more diversified natural resources funds).
- 6 Alternative Strategies — due to the wide variation in fund types within this category, these funds, by default, should be classified as High volatility. If a fund company wishes to classify an alternative strategies fund in a lower volatility category, an explanation should accompany the disclosure.
- 7 As of March 31, 2014, CIFSC voted to terminate the Japanese Equity category. Funds will be reclassified into the Geographic Equity category.
- 8 Miscellaneous Sub-Categories — due to the wide variation in fund types within these categories, these funds should not be classified according to this guideline. Fund companies must accompany the volatility category selected for such a fund with an explanation. As of March 31, 2014, CIFSC has removed the ‘Miscellaneous’ label from ‘Miscellaneous – Sector Equity’ and ‘Miscellaneous – Geographic Equity’.

## Appendix 2: Standard Deviation – Annual (Average) at December 31, 2013 <sup>4</sup>

N Year Average Annual Standard Deviation of Benchmark (%)

CIFSC Category	Benchmark	1Year	2Years	3Years	4Years	5Years	6Years	7Years	8Years	9Years	10Years
2015 Target Date Portfolio	Benchmarked to the relevant balanced fund category benchmark depending on the fund	n/a									
2020 Target Date Portfolio	Benchmarked to the relevant balanced fund category benchmark depending on the fund	n/a									
2025 Target Date Portfolio	Benchmarked to the relevant balanced fund category benchmark depending on the fund	n/a									
2025+ Target Date Portfolio	Benchmarked to the relevant balanced fund category benchmark depending on the fund	n/a									
Alternative Strategies	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Asia Pacific Equity	MSCI AC Asia Pacific Index	8.424	9.864	10.097	9.914	11.473	13.869	13.119	13.072	12.920	12.887
Asia Pacific ex-Japan Equity	MSCI AC Far East ex Japan Index	9.170	10.856	13.674	13.033	14.725	18.236	17.550	17.355	17.214	17.034
Canadian Dividend & Income Equity	S&P/TSX Equity Index & S&P/TSX Composite Dividend	7.802	8.742	10.419	10.988	12.941	16.048	15.321	14.896	14.606	14.104
Canadian Equity	S&P/TSX Composite Index	7.821	8.622	10.242	10.776	12.763	15.920	15.189	14.690	14.419	13.929
Canadian Equity Balanced	S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (50:15:35)	4.512	5.048	5.829	6.073	7.397	9.496	8.929	8.655	8.463	8.198
Canadian Fixed Income	FTSE TMX Canada Universe Bond Index	n/a									
Canadian Fixed Income Balanced	S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (20:15:65)	3.685	3.007	2.888	2.988	3.976	5.209	4.856	4.744	4.653	4.558
Canadian Focused Equity	S&P/TSX Composite Index & MSCI World Index (60:40)	6.596	7.583	8.977	9.543	11.147	13.720	12.870	12.527	12.169	11.763
Canadian Focused Small/Mid Cap Equity	S&P/TSX SmallCap Index & MSCI World Small Cap Index (60:40)	8.191	10.572	12.909	13.143	14.399	18.201	17.312	16.727	16.274	15.778
Canadian Inflation Protected Fixed Income	FTSE TMX Canada Real Return Bond Index	n/a									
Canadian Long Term Fixed Income	FTSE TMX Canada Long Term Overall Bond Index	n/a									
Canadian Money Market	FTSE TMX Canada 91 Day T-Bill Index	n/a									
Canadian Neutral Balanced	S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (40:10:50)	3.994	3.995	4.378	4.519	5.704	7.480	7.023	6.809	6.684	6.496
Canadian Short Term Fixed Income	FTSE TMX Canada Short Term Bond Index	n/a									
Canadian Small/Mid Cap Equity	S&P/TSX SmallCap Index	10.529	13.201	15.785	15.743	17.185	21.727	20.845	20.049	19.536	18.910
Canadian Synthetic Money Market	FTSE TMX Canada 91 Day T-Bill Index	n/a									
Emerging Markets Equity	MSCI Emerging Markets Index	9.955	12.737	14.242	13.782	15.481	19.155	18.214	18.413	18.396	17.944
European Equity	MSCI Europe Index	9.605	11.380	13.314	14.630	15.637	17.311	16.187	15.772	15.106	14.756
Financial Services Equity	MSCI World Financials Index	8.452	11.641	13.984	14.427	19.954	21.606	20.316	19.421	18.502	17.862
Global Equity	MSCI World Index	6.003	7.502	8.745	9.479	11.246	12.960	12.188	11.958	11.523	11.330
Global Equity Balanced	MSCI World Index & Citigroup WBIG Index (65:35)	4.331	4.716	5.017	5.488	7.505	8.426	8.184	8.173	7.992	7.981
Global Fixed Income	Citigroup World Broad Investment Grade	4.559	4.741	5.822	6.822	8.393	10.251	10.476	10.024	9.890	9.564
Global Fixed Income Balanced	MSCI World Index & Citigroup WBIG Index (35:65)	3.765	3.479	3.521	4.139	6.286	7.221	7.440	7.351	7.307	7.254
Global Neutral Balanced	MSCI World Index & Citigroup WBIG Index (50:50)	3.910	3.870	3.896	4.384	6.551	7.359	7.379	7.373	7.282	7.283
Global Small/Mid Cap Equity	MSCI World Small Cap Index	6.539	8.685	10.624	11.309	13.491	15.708	14.994	14.858	14.336	14.119
Greater China Equity	MSCI China Index	13.705	15.550	17.467	16.057	17.478	22.921	23.429	23.764	23.065	22.795
Health Care Equity	MSCI World Health Care Index	7.746	7.907	8.184	9.037	11.091	11.738	11.935	11.588	11.455	11.874
High Yield Fixed Income	Bank of America Merrill Lynch Global High Yield Index	5.329	4.472	5.045	5.391	7.289	9.528	9.558	9.268	9.141	8.994
International Equity	MSCI EAFE Index	7.660	9.952	11.098	11.960	13.325	15.126	14.167	13.929	13.405	13.073
Japanese Equity	MSCI Japan Index	10.981	11.898	13.122	11.974	13.315	13.839	13.666	13.416	13.406	13.854
Geographic Equity	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Commodity	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Miscellaneous - Income & Real Property	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Passive Inverse/Leveraged	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Miscellaneous - Other	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sector Equity	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Energy Equity	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Miscellaneous - Undisclosed Holdings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Natural Resources Equity	MSCI World Energy & Materials Index & S&P Global Natural Resources (60:40)	9.315	11.981	13.776	14.452	14.147	16.885	15.862	16.135	16.142	15.537
North American Equity	MSCI North America Index	7.085	7.416	8.279	8.881	10.806	12.350	11.743	11.457	11.134	10.999
Precious Metals Equity	S&P/TSX Global Gold Index	32.499	29.078	27.962	28.275	30.532	36.762	34.851	34.702	33.613	33.245
Real Estate Equity	S&P Developed Property Index	11.558	10.025	10.791	11.073	15.888	18.755	18.162	17.955	17.368	17.112
Tactical Balanced	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
U.S. Synthetic Money Market	US 3 Month Treasury Bills CAD	0.007	0.007	0.010	0.013	0.017	0.163	0.436	0.544	0.539	0.513
U.S. Equity	S&P 500 Index	7.588	7.784	8.462	8.993	11.209	12.601	12.043	11.735	11.418	11.284
U.S. Money Market	US 3 Month Treasury Bills CAD	0.007	0.007	0.010	0.013	0.017	0.163	0.436	0.544	0.539	0.513
U.S. Small/Mid Cap Equity	Russell 2000 Index	8.872	10.023	12.391	13.235	16.001	17.448	16.708	16.502	16.109	15.825

<sup>4</sup> Data used in this table has been computed from data provided by index providers directly. For Sources and Disclaimers please go to page 18.

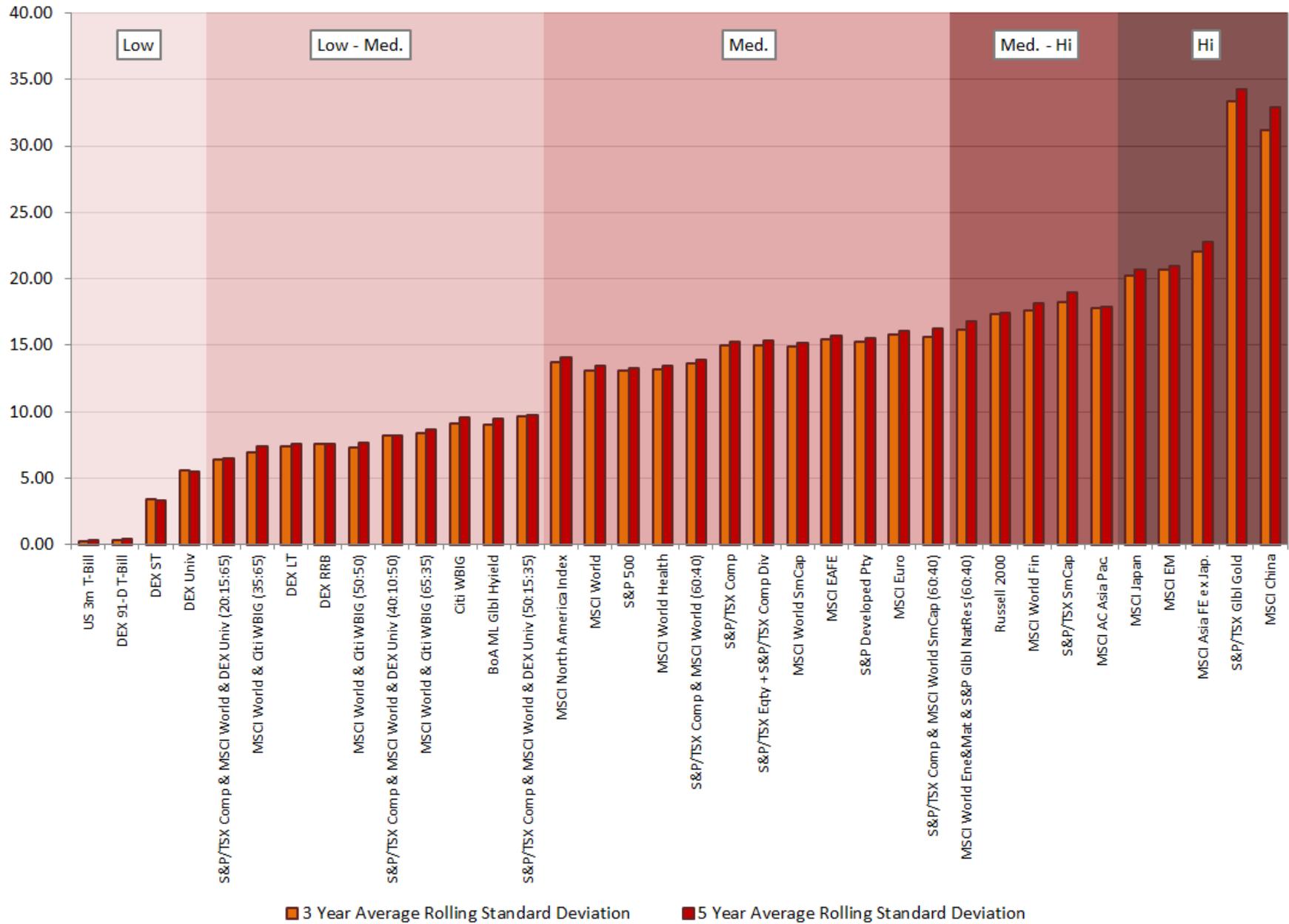
### Appendix 3: Standard Deviation – Index at December 31, 2013 <sup>5</sup>

Index Series Standard Deviation

CIFSC Category	Benchmark	3 Year Average Rolling Standard Deviation [%]	5 Year Average Rolling Standard Deviation [%]	Number of months of data used
2015 Target Date Portfolio	Benchmarked to the relevant balanced fund category benchmark depending on the fund	n/a	n/a	n/a
2020 Target Date Portfolio	Benchmarked to the relevant balanced fund category benchmark depending on the fund	n/a	n/a	n/a
2025 Target Date Portfolio	Benchmarked to the relevant balanced fund category benchmark depending on the fund	n/a	n/a	n/a
2025+ Target Date Portfolio	Benchmarked to the relevant balanced fund category benchmark depending on the fund	n/a	n/a	n/a
Alternative Strategies	n/a	n/a	n/a	n/a
Asia Pacific Equity	MSCI AC Asia Pacific Index	17.78661	17.86407	312
Asia Pacific ex-Japan Equity	MSCI AC Far East ex Japan Index	22.06995	22.80582	312
Canadian Dividend & Income Equity	S&P/TSX Equity Index & S&P/TSX Composite Dividend	15.02767	15.31547	695
Canadian Equity	S&P/TSX Composite Index	15.00654	15.29859	695
Canadian Equity Balanced	S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (50:15:35)	9.70851	9.78065	409
Canadian Fixed Income	FTSE TMX Canada Universe Bond Index	n/a	n/a	n/a
Canadian Fixed Income Balanced	S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (20:15:65)	6.45366	6.46930	409
Canadian Focused Equity	S&P/TSX Composite Index & MSCI World Index (60:40)	13.64636	13.93151	528
Canadian Focused Small/Mid Cap Equity	S&P/TSX Small Cap Index & MSCI World Small Cap Index (60:40)	15.63871	16.21713	167
Canadian Inflation Protected Fixed Income	FTSE TMX Canada Real Return Bond Index	n/a	n/a	n/a
Canadian Long Term Fixed Income	FTSE TMX Canada Long Term Overall Bond Index	n/a	n/a	n/a
Canadian Money Market	FTSE TMX Canada 91 Day T-Bill Index	n/a	n/a	n/a
Canadian Neutral Balanced	S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (40:10:50)	8.17923	8.21452	409
Canadian Short Term Fixed Income	FTSE TMX Canada Short Term Bond Index	n/a	n/a	n/a
Canadian Small/Mid Cap Equity	S&P/TSX Small Cap Index	18.21006	18.97964	167
Canadian Synthetic Money Market	FTSE TMX Canada 91 Day T-Bill Index	n/a	n/a	n/a
Emerging Markets Equity	MSCI Emerging Markets Index	20.66564	20.93460	312
European Equity	MSCI Europe Index	15.78366	16.08283	528
Financial Services Equity	MSCI World Financials Index	17.66281	18.14314	228
Global Equity	MSCI World Index	13.13714	13.42963	528
Global Equity Balanced	MSCI World Index & Citigroup WBIG Index (65:35)	8.35422	8.67650	180
Global Fixed Income	Citigroup World Broad Investment Grade	9.13181	9.59019	180
Global Fixed Income Balanced	MSCI World Index & Citigroup WBIG Index (35:65)	6.96198	7.41080	180
Global Neutral Balanced	MSCI World Index & Citigroup WBIG Index (50:50)	7.31342	7.69786	180
Global Small/Mid Cap Equity	MSCI World Small Cap Index	14.92281	15.22145	180
Greater China Equity	MSCI China Index	31.17890	32.92157	252
Health Care Equity	MSCI World Health Care Index	13.14914	13.48715	228
High Yield Fixed Income	Bank of America Merrill Lynch Global High Yield Index	9.06005	9.51991	192
International Equity	MSCI EAFE Index	15.41203	15.72694	528
Japanese Equity	MSCI Japan Index	20.27645	20.66441	528
Geographic Equity	n/a	n/a	n/a	n/a
Commodity	n/a	n/a	n/a	n/a
Miscellaneous - Income & Real Property	n/a	n/a	n/a	n/a
Passive Inverse/Leveraged	n/a	n/a	n/a	n/a
Miscellaneous - Other	n/a	n/a	n/a	n/a
Sector Equity	n/a	n/a	n/a	n/a
Energy Equity	n/a	n/a	n/a	n/a
Miscellaneous - Undisclosed Holdings	n/a	n/a	n/a	n/a
Natural Resources Equity	MSCI World Energy & Materials Index & S&P Global Natural Resources (60:40)	16.16086	16.77813	133
North American Equity	MSCI North America Index	13.72463	14.06693	528
Precious Metals Equity	S&P/TSX Global Gold Index	33.36750	34.20682	159
Real Estate Equity	S&P Developed Property Index	15.30897	15.55053	293
Tactical Balanced	n/a	n/a	n/a	n/a
U.S. Synthetic Money Market	US 3 Month Treasury Bills CAD	0.29522	0.39406	793
U.S. Equity	S&P 500 Index	13.14089	13.32345	336
U.S. Money Market	US 3 Month Treasury Bills CAD	0.29522	0.39406	793
U.S. Small/Mid Cap Equity	Russell 2000 Index	17.34053	17.42005	336

<sup>5</sup> Data used in this table has been computed from data provided by index providers directly. For Sources and Disclaimers please go to page 18.

### Appendix 4: Standard Deviation - Benchmark (Average Rolling 3/5 Year) at December 31, 2013 <sup>6</sup>



<sup>6</sup> Data used in this chart has been computed from data provided by index providers directly. For Sources and Disclaimers please go to page 18.

### Appendix 5: Example of Appropriate Use of IFIC Guidelines

In Example 1 and Example 2, we consider a fictional fund – the XYZ Asian Equity Fund – to illustrate appropriate use of the IFIC Guidelines.

Example 1:

The fund has only three years of monthly return history. We compare these results to the appropriate benchmark index in Appendix 2.

	<b>Fund: XYZ Asian Equity Fund (stdev)</b>	<b>Benchmark: MSCI AC Asia Pacific Index (stdev)</b>
1 year	8.136	8.424
2 year	9.893	9.864
3 year	10.081	10.097

Since the results are similar to the benchmark index, the fund manager should assign the fund to the same risk category as the benchmark index – in this case, the ‘Medium to High’ risk category.

Example 2:

The fund has ten years of monthly return history. We compare these results to the appropriate benchmark index in Appendix 2. (Note: the fund manager specifically uses a low-volatility strategy).

	<b>Fund: XYZ Asian Equity Fund (stdev)</b>	<b>Benchmark: MSCI AC Asia Pacific Index (stdev)</b>
1 year	8.136	8.424
2 year	9.893	9.864
3 year	10.081	10.097
4 year	8.940	9.914
5 year	9.816	11.473
6 year	11.312	13.869
7 year	11.085	13.119
8 year	11.020	13.072
9 year	11.078	12.920
10 year	11.232	12.887

Some fund managers may interpret the average annual standard deviation of the XYZ Asian Equity Fund to be materially different from the benchmark index for the 6 yr, 7 yr and 8 yr average annual stdev.

In such a case, we determine XYZ Asian Equity Fund’s 3-yr and 5-yr rolling average stdev. These are compared to the SD bands presented in Appendix 1 to determine the appropriate volatility classification.

<b>Fund: XYZ Asian Equity Fund (3-year rolling avg stdev)</b>	<b>SD Band (Appendix 1)</b>
10.666	Low to Medium risk

<b>Fund: XYZ Asian Equity Fund (5-year rolling avg stdev)</b>	<b>SD Band (Appendix 1)</b>
11.924	Medium risk

We ultimately use the average of the rolling 5-year standard deviation since it results in a more stable volatility risk classification over time.

The 5-year rolling average stdev of the fund indicates Medium risk, which is lower than the risk category of the benchmark index (i.e. Medium to High risk).

In this case, the fund manager would assign a lower risk rating (i.e. Medium risk) and include the use of the low-volatility strategy as justification in the relevant disclosures.

Example 3:

In this example, we consider the launch of a new International Equity fund with a very aggressive investment style, and no historical data. As the fund has less than three years of return history, the Guidelines suggest selecting the benchmark index that most closely resembles the investment mandate or strategy of the fund. In this case, the relevant CIFSC category – International Equity – has a volatility classification of ‘Medium’.

However, the fund manager intends to use an aggressive strategy with potential volatility significantly higher than a broad International Equity fund. Therefore, the fund manager would categorize the fund in a higher risk category (Medium to High, or High, depending on the level of additional volatility associated with the investment strategy).

## **Disclaimers:**

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**Indices: MSCI AC Asia Pacific Index, MSCI AC Far East ex Japan Index, MSCI EAFE Index, MSCI Emerging Markets Index, MSCI Europe Index, MSCI China Index, MSCI Japan Index, MSCI North America Index, MSCI World Financials Index, MSCI World Health Care Index, MSCI World Index, MSCI World Small Cap Index, MSCI World Index, MSCI World Energy & Materials Index 10/40**

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**Indices: FTSE TMX Canada Universe Bond Index, FTSE TMX Canada Real Return Bond Index, FTSE TMX Canada Long Term Overall Bond Index, FTSE TMX Canada 91 Day T-Bill Index, FTSE TMX Canada Short Term Bond Index**

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**Index: Bank of America Merrill Lynch Global High Yield Index**

Source: BofA Merrill Lynch Global Research, used with permission.

**Index: Citigroup World Broad Investment Grade Index**

Source: Citigroup Global Markets Inc.

**Indices: S&P Developed Property Index, S&P 500 Index, S&P Global Natural Resources, S&P/TSX Equity Index, S&P/TSX Composite Index, S&P/TSX Composite Dividend Index, S&P/TSX SmallCap Index, S&P/TSX Global Gold Index**

Source: Standard & Poors. TSX Inc.

**Index: Russell 2000 Index**

Source: Russell Investments.