



THE INVESTMENT  
FUNDS INSTITUTE  
OF CANADA

L'INSTITUT DES FONDS  
D'INVESTISSEMENT  
DU CANADA

# VOLUNTARY GUIDELINES FOR FUND MANAGERS REGARDING FUND VOLATILITY RISK CLASSIFICATION

June 2017

Data Updated to December 31, 2016

## 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:*

*Ian Bragg – Director, Research & Statistics ([ibragg@ific.ca](mailto:ibragg@ific.ca) | 416-309-2325)*

# CONTENTS

|             |  |           |
|-------------|--|-----------|
| <b>I.</b>   | <b>INTRODUCTION .....</b>  | <b>2</b>  |
| <b>II.</b>  | <b>A NOTE ABOUT THIS DOCUMENT .....</b>  | <b>3</b>  |
| <b>III.</b> | <b>FREQUENTLY ASKED QUESTIONS .....</b>  | <b>4</b>  |
| <b>IV.</b>  | <b>INTENDED USE OF GUIDELINES.....</b>   | <b>5</b>  |
| <b>V.</b>   | <b>APPLICATION OF THE GUIDELINES .....</b>   | <b>6</b>  |
|             | Methodology .....  | 6         |
|             | Annual Review .....  | 7         |
|             | Decision Tree for Applying Guidelines .....  | 7         |
|             | Qualitative Factors .....  | 8         |
|             | Use of Discretion and Full, True and Plain Disclosure .....                                    | 8         |
|             | Maintenance of the Guidelines: .....   | 9         |
| <b>VI.</b>  | <b>COMMUNICATING USE OF THE GUIDELINES .....</b>   | <b>10</b> |
|             | Statement of Use (Samples of Appropriate Reference) .....                                      | 10        |
|             | <b>Appendix 1: Volatility Classification and Asset Categories .....</b>                        | <b>11</b> |
|             | Notes to volatility classifications .....  | 13        |
|             | <b>Appendix 2: Standard Deviation – Annual (Avg) at Dec. 31, 2016.....</b>                     | <b>14</b> |
|             | <b>Appendix 3: Standard Deviation – Index at Dec. 31, 2016.....</b>                            | <b>14</b> |
|             | <b>Appendix 4: Standard Deviation - Benchmark (Avg Rolling 3/5 Year) at Dec. 31, 2016.....</b> | <b>16</b> |
|             | <b>Appendix 5: Example of Appropriate Use of IFIC Guidelines.....</b>                          | <b>17</b> |
|             | <b>Disclaimers: .....</b>  | <b>19</b> |

## I. INTRODUCTION

Risk is inevitable in all forms of investing. In its simplest form, risk refers to the uncertainty of returns. This uncertainty can be impacted by numerous factors. Common types of risk include: inflation risk, business risk, political risk, liquidity risk, interest rate risk, foreign exchange risk and default risk. Generally speaking, risk and return are interrelated, with higher potential returns associated with higher risk or uncertainty in return. Investors also have different risk profiles, with some willing to take on more risk than others in the pursuit of higher returns. Accordingly, there is a broad range in the relative riskiness of available funds.

Securities regulation requires mutual fund companies to disclose all aspects of risk in a prospectus, the legally required document that details the investment objectives and strategies of a fund and other information related to fees and management practices. There are two types of risks that must be disclosed in a prospectus: the general risk of investing in mutual funds; and, the risk associated with investing in the particular fund being offered.

In addition to these requirements, fund companies must disclose the volatility of mutual funds in a Fund Facts document. Fund Facts are designed to give investors key information about a mutual fund in language that they can easily understand.

The volatility measure that is reported in the Fund Facts document is a specific aspect of risk and it measures the extent of the variation in a fund's return over a given period of time. The greater the fluctuations, either up in value or down in value, the greater the volatility. The volatility is measured using standard deviation – this measures how much the return on the fund rises and falls during a given period in relation to the fund's expected normal returns. While any single risk measure has limitations, standard deviation has been chosen as an unambiguous and relatively well-established and well-understood measure of volatility risk.

Once the volatility is quantitatively established, it is converted and identified in a Fund Facts document as fitting into one of five potential risk categories: Low, Low to Medium, Medium, Medium to High and High. The Fund Facts documents also refer readers to the prospectus for more information about general and specific risks that can affect the fund's returns.

**The guidelines presented in this document are intended to help fund managers apply a consistent volatility classification methodology and provide risk disclosure for each fund.** The guidelines provide an explanation of the methodology, the categories of classification, and the associated volatility classification for each fund category.

## II. A NOTE ABOUT THIS DOCUMENT

As of September 1, 2017, the investment risk level of conventional mutual funds and ETFs must be determined by using the CSA Risk Classification Methodology for each filing of a Fund Facts or ETF Facts, and at least annually. Prior to September 1, 2017, a fund company may continue to determine the risk level of funds using a methodology at its discretion, including the IFIC Voluntary Guidelines for Fund Managers Regarding Fund Volatility Risk Classification. As such, IFIC is providing this 2017 version of the Guidelines. As of September 1, 2017 this Methodology can not be used to determine risk level of funds.

The CSA Risk Classification Methodology can be found [here](#).

The IFIC Guidelines are reviewed on an annual basis by the Fund Risk Classification Task Force and the benchmark data in the appendices is refreshed yearly.

- Appendix 1 (Volatility Classification and Asset Categories):

Modifications were made to Appendix 1 in the July 2015 update of this document. The previous version of Appendix 1 included Standard Deviation (SD) bands for each volatility classification (i.e. Low: 0 – 6; Low to Medium: 6 – 11; etc.). Under this previous version, fund managers could simply classify their funds according to the SD bands when only looking at a fund's short-term volatility. For example, a scenario occurred in the past where a fund manager reclassified an Asian Growth Fund from 'High' volatility to 'Medium' volatility by simply looking at the short-term standard deviation figures and assigning them to a volatility classification based on the SD bands in Appendix 1.

The modified version of Appendix 1 aims to avoid these types of occurrences – it includes 'Point in Time' and 'Rolling Averages' standard deviation figures to give fund managers an appreciation for the different SD band ranges that are possible.

The 'Point in Time' column illustrates that during periods of low market volatility, SD Band ranges may be lower than the 'Rolling Averages' SD Band ranges which are based on a longer set of historical benchmark data.

### **III. FREQUENTLY ASKED QUESTIONS**

#### ***1. What is risk?***

In an investment context, risk refers to the uncertainty of future returns. For example, one might expect a return of 8% next year from an investment in an equity market, but the actual return on the equity market might be much higher than 8% or indeed much lower. Common types of risk when investing in funds can include: market risk, sector risk, corporate risk, interest rate risk, currency risk, etc.

#### ***2. What is volatility?***

Volatility is the degree and speed of changes in an investment's value over a given period of time. Investments that change in value gradually, or minimally, are said to have lower volatility than those that change rapidly or significantly and frequently during the same time period. Volatility is usually measured historically – how an investment has acted in the past – and that behaviour suggests how the investment may behave in the future, although no one can predict the future.

#### ***3. How is volatility measured?***

Volatility can be measured in a variety of ways. Standard deviation is one commonly used measure of volatility. In simple terms, standard deviation measures how much the value of a fund rises and falls during a given period in relation to the fund's average value. A low standard deviation means that the value of the fund has fluctuated less.

#### ***4. Who created the IFIC Guidelines? How often are the IFIC Guidelines updated?***

IFIC's Fund Risk Classification Task Force (the "Task Force") was established in 2003 and tasked with the development and ongoing revision of the IFIC Guidelines. The IFIC Guidelines are reviewed on an annual basis to ensure they remain meaningful and relevant – particularly to ensure that the fund categories and volatility classifications continue to accurately reflect the industry.

#### ***5. What is the purpose of the IFIC Guidelines?***

Over the last ten years, the IFIC Guidelines have assisted fund managers regarding the classification and comparisons of the volatility risk associated with different types of mutual fund categories. The IFIC Guidelines are designed to assist with standardizing terminology, categories, and volatility risk descriptions of funds.

## IV. INTENDED USE OF GUIDELINES

Fund companies are required by National Instrument 81-101F1 – Mutual Funds Prospectus Disclosure (in the ‘Who Should Invest in This Fund?’ section of the Simplified Prospectus) to set out the “*risk*” classification for each fund in the fund’s prospectus. The guidelines presented in this document, developed and maintained by the Investment Funds Institute of Canada are only intended to help **fund managers** apply consistent volatility classification methodology and provide risk disclosure for each fund.

Specifically, the guidelines are 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 should not be used by dealers and their staff in substitution of comprehensive suitability reviews or for portfolio construction purposes. 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

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.**

## V. 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, assign the fund to the volatility classification of the relevant CIFSC category (see Appendix 1).
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<sup>2</sup> 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. Placing the fund in a volatility classification other than that determined by applying the method above.
  - a) A fund *should* be classified into a higher volatility classification if the fund has a higher volatility level than the SD Band ranges as presented in Appendix 1 or if there are qualitative factors (described below) which may lead the fund to have high volatility characteristics which are not captured in the fund's historical returns. Funds *can* be classified into a lower volatility classification only in circumstances where the fund has a lower volatility level than the SD Band ranges as presented in Appendix 1.
  - b) Fund managers must document the reasons for classifying the fund into a higher or lower volatility classification, and consider including that rationale in the fund's prospectus.

---

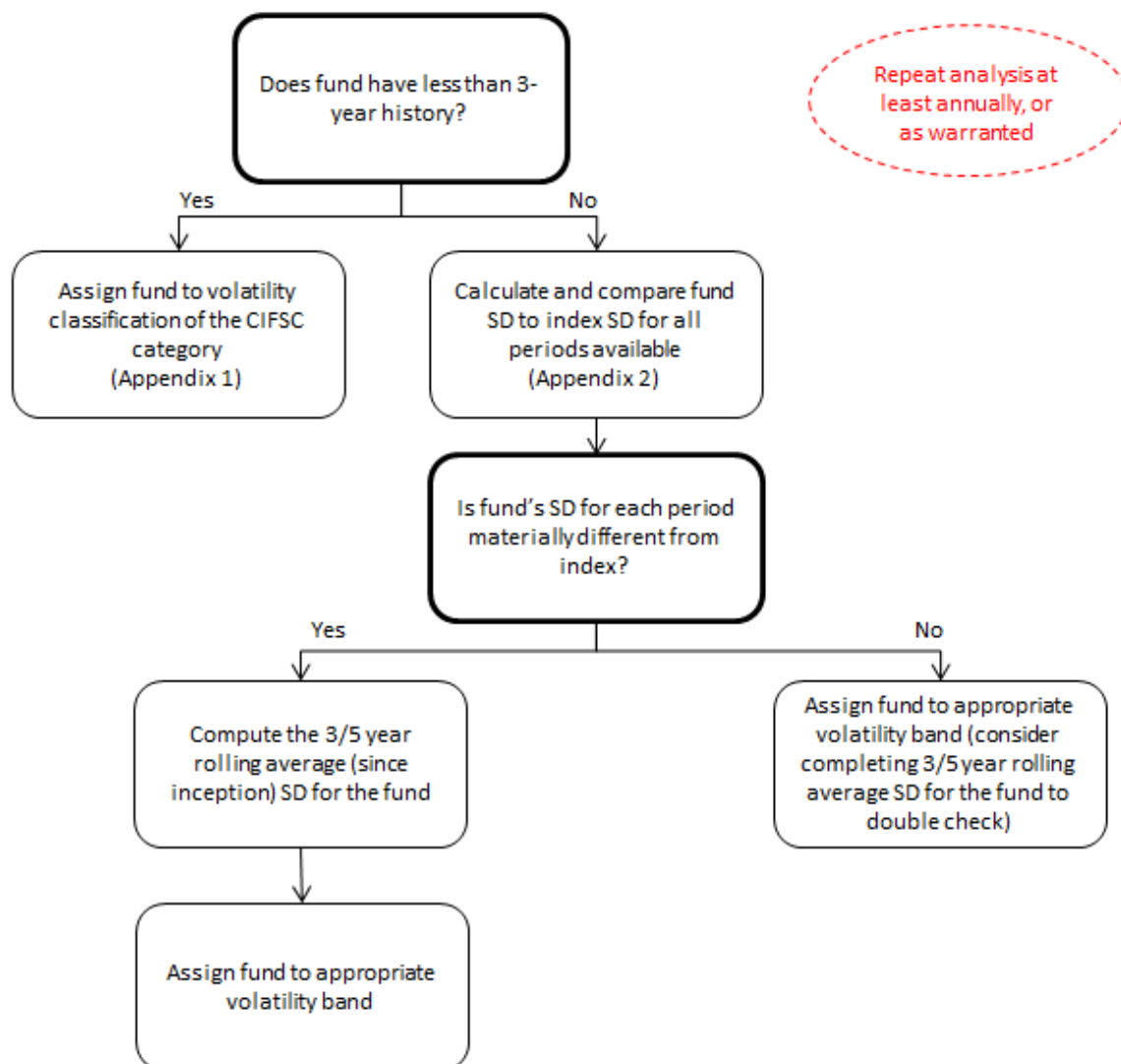
<sup>1</sup> Please refer to Appendix 5 for examples of appropriate use of the Guidelines.

<sup>2</sup> A broad range of market indices and comparative benchmarks was selected to represent the different asset categories available to investors. For consistency, all non-Canadian indices are denominated in Canadian dollars.

## Annual Review

1. 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.
2. Fund managers should be consistent with the methodology that they use each year to classify their funds.

### Decision Tree for Applying Guidelines





## **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 standard deviation profile different from that of 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).

## **Use of Discretion and Full, True and Plain Disclosure**

In order to ensure full, true and plain disclosure, Fund managers need to analyse and assess qualitative factors of a fund in addition to using quantitative analysis. Therefore, Fund managers need the ability to classify a fund higher than the volatility category indicated by a strict application of the methodology described above. However, this should be done only in a situation where applying the methodology would result in a classification that is contrary to providing full, true and plain disclosure of all material facts relating to the mutual funds being offered.

*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.*

### ***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.

## VI. COMMUNICATING USE OF THE GUIDELINES

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 are not permitted to reference these guidelines to determine volatility classification.** 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)***

#### ***a) 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 recommends 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."***

#### ***b) Press Releases***

***"[Firm X] chooses to follow the risk classification methodology recommended by the Investment Funds Institute of Canada (IFIC Voluntary Guidelines for Fund Managers Regarding Fund Volatility Risk Classification – version with data updated to December 31, 2015) 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 are not permitted to reference these guidelines to determine volatility classification.**

**These guidelines are not intended to be a substitute for a fund**

## Appendix 1: Volatility Classification and Asset Categories

The standard deviation figures included in the table below are taken from Appendices 2 and 3. The 'Point in Time' figures and 'Rolling Averages' figures have both been included to give fund managers an appreciation for the different standard deviation band (SD Band) ranges that are possible. The 'Point in Time' column illustrates that during periods of low market volatility, SD Band ranges may be lower than the 'Rolling Averages' SD Band ranges which are based on a longer set of historical benchmark data. The 'Point in Time' SD Band ranges will be re-evaluated and updated (if necessary) on an annual basis.

| Volatility Classification      | Asset Categories <sup>‡</sup>                 | Point in Time (from Appendix 2) |                          | Rolling Averages (from Appendix 3) |                                  |
|--------------------------------|---|---------------------------------|--------------------------|------------------------------------|----------------------------------|
|                                |   | 3-year average annual SD        | 5-year average annual SD | 3-year rolling average annual SD   | 5-year rolling average annual SD |
| Low                            | Preferred Share Fixed Income                  | 0.12                            | 0.09                     | 0.06                               | 0.07                             |
|                                | U.S. Money Market                             |                                 |                          | 0.30                               | 0.39                             |
|                                | Canadian Money Market                         | 0.13                            | 0.13                     | 0.37                               | 0.46                             |
|                                | Canadian Short Term Fixed Income              | 1.35                            | 1.26                     | 3.24                               | 3.20                             |
|                                | Canadian Fixed Income                         | 3.60                            | 3.38                     | 5.43                               | 5.32                             |
|                                | SD Band Range (Low)                           | 0 - 4.5                         |                          | 0 - 7                              |                                  |
| Low to Medium                  | Canadian Fixed Income Balanced                | 3.92                            | 3.57                     | 6.20                               | 6.19                             |
|                                | Global Fixed Income Balanced                  | 4.86                            | 4.35                     | 6.37                               | 6.71                             |
|                                | Global Neutral Balanced                       | 5.43                            | 4.88                     | 6.75                               | 7.02                             |
|                                | Floating Rate Loan <sup>a</sup>               |                                 |                          | 6.59                               | 8.30                             |
|                                | Canadian Long Term Fixed Income               | 6.89                            | 6.51                     | 7.49                               | 7.69                             |
|                                | Canadian Inflation Protected Fixed Income     | 7.47                            | 7.90                     | 7.76                               | 7.70                             |
|                                | Canadian Neutral Balanced                     | 4.17                            | 4.16                     | 7.83                               | 7.87                             |
|                                | Global Equity Balanced                        | 6.19                            | 5.69                     | 7.77                               | 7.98                             |
|                                | Global Fixed Income                           | 4.65                            | 4.65                     | 8.27                               | 8.76                             |
|                                | High Yield Fixed Income                       | 6.61                            | 5.90                     | 8.47                               | 8.77                             |
|                                | Canadian Equity Balanced                      | 4.75                            | 4.98                     | 9.30                               | 9.40                             |
|                                | Short-term Target Date Portfolio <sup>b</sup> | n/a                             | n/a                      | n/a                                | n/a                              |
|                                | 2025 Target Date Portfolio <sup>b</sup>       | n/a                             | n/a                      | n/a                                | n/a                              |
|                                | 2030 Target Date Portfolio <sup>b</sup>       | n/a                             | n/a                      | n/a                                | n/a                              |
|                                | 2035 Target Date Portfolio <sup>b</sup>       | n/a                             | n/a                      | n/a                                | n/a                              |
|                                | 2035+ Target Date Portfolio <sup>b</sup>      | n/a                             | n/a                      | n/a                                | n/a                              |
| Tactical Balanced <sup>b</sup> | n/a   | n/a                             | n/a                      | n/a                                |                                  |
|                                | SD Band Range (Low to Medium)                 | 3.5 - 10                        |                          | 6 - 11                             |                                  |

<sup>‡</sup> Asset categories come from the Canadian Investment Funds Standards Committee as of December 31, 2016 (www.cifsc.org). 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 the 'Rolling Averages' SD Bands.

| Volatility Classification | Asset Categories                                    | Point in Time (from Appendix 2) |                          | Rolling Averages (from Appendix 3) |                                  |
|---------------------------|---|---------------------------------|--------------------------|------------------------------------|----------------------------------|
|                           |   | 3-year average annual SD        | 5-year average annual SD | 3-year rolling average annual SD   | 5-year rolling average annual SD |
| Medium                    | U.S. Equity   |                                 |                          | 12.74                              | 12.95                            |
|                           | Global Equity                                       | 8.41                            | 8.15                     | 12.79                              | 13.11                            |
|                           | Canadian Focused Equity                             | 6.36                            | 6.96                     | 13.21                              | 13.55                            |
|                           | North American Equity                               | 8.09                            | 7.89                     | 13.32                              | 13.66                            |
|                           | Canadian Focused Small/Mid Cap Equity               | 8.48                            | 9.41                     | 14.49                              | 15.18                            |
|                           | Canadian Equity                                     | 7.07                            | 7.77                     | 14.74                              | 15.11                            |
|                           | Real Estate Equity                                  |                                 |                          | 14.96                              | 15.21                            |
|                           | International Equity                                | 8.07                            | 9.12                     | 14.99                              | 15.37                            |
|                           | Canadian Dividend & Income Equity                   |                                 |                          | 15.11                              | 15.44                            |
|                           | European Equity                                     | 10.46                           | 11.01                    | 15.50                              | 15.88                            |
|                           | SD Band Range (Medium)                              | 7.5 - 13.5                      |                          | 11 - 16                            |                                  |
| Medium to High            | Global Small/Mid Cap Equity <sup>c</sup>            | 8.64                            | 8.85                     | 13.79                              | 14.17                            |
|                           | Financial Services Equity                           | 7.66                            | 9.75                     | 16.39                              | 17.21                            |
|                           | U.S. Small/Mid Cap Equity                           | 11.32                           | 11.00                    | 16.74                              | 16.91                            |
|                           | Asia Pacific Equity <sup>c</sup>                    | 9.92                            | 9.87                     | 16.90                              | 16.89                            |
|                           | Canadian Small/Mid Cap Equity <sup>c</sup>          | 12.40                           | 12.67                    | 17.30                              | 18.07                            |
|                           | Emerging Markets Equity                             | 8.10                            | 10.21                    | 19.53                              | 19.86                            |
|                           | SD Band Range (Medium to High)                      | 9 - 16                          |                          | 16 - 20                            |                                  |
| High                      | Asia Pacific ex-Japan Equity                        | 11.10                           | 10.96                    | 20.87                              | 21.51                            |
|                           | Greater China Equity                                | 15.46                           | 15.39                    | 29.10                              | 30.18                            |
|                           | Precious Metals Equity                              | 34.16                           | 32.36                    | 33.74                              | 33.81                            |
|                           | Retail Venture Capital <sup>d</sup>                 | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | Natural Resources Equity <sup>e</sup>               |                                 |                          | 15.88                              | 16.27                            |
|                           | Energy Equity <sup>e</sup>                          | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | SD Band Range (High)                                | > 12                            |                          | > 20                               |                                  |
| N/A                       | Alternative Strategies <sup>f</sup>                 | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | Global Infrastructure Equity                        |                                 |                          | n/a                                | n/a                              |
|                           | Geographic Equity <sup>g</sup>                      | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | Commodity <sup>g</sup>                              | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | Miscellaneous - Income & Real Property <sup>g</sup> | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | Passive Inverse/Leveraged <sup>g</sup>              | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | Miscellaneous - Other <sup>g</sup>                  | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | Sector Equity                                       | n/a                             | n/a                      | n/a                                | n/a                              |
|                           | Miscellaneous - Undisclosed Holdings <sup>g</sup>   | n/a                             | n/a                      | n/a                                | n/a                              |

## **Notes to volatility classifications**

*Fund managers have a duty to ensure that the classification of their fund represents all facts (i.e. any element of risk of which they are aware that is not captured in the fund's historical volatility), and have an obligation to classify accordingly.*

*It is recognized that managers should be given the latitude to classify a fund 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.*

- a On May 13, 2015, CIFSC created a new category called Floating Rate Loan.
- b 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.
- c 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.
- d Retail 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.
- e 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).
- f 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 different volatility category, an explanation should accompany the disclosure.
- g 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 (Avg) at Dec. 31, 2016

| CIFSC Category                            | Benchmark  | 1 Year | 2 Years | 3 Years | 4 Years | 5 Years | 6 Years | 7 Years | 8 Years | 9 Years | 10 Years |
|---|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Short-term Target Date Portfolio          | Benchmarked to the relevant balanced fund category benchmark depending on the fund | n/a    | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | 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     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a      |
| 2030 Target Date Portfolio                | Benchmarked to the relevant balanced fund category benchmark depending on the fund | n/a    | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a      |
| 2035 Target Date Portfolio                | Benchmarked to the relevant balanced fund category benchmark depending on the fund | n/a    | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a      |
| 2035+ Target Date Portfolio               | Benchmarked to the relevant balanced fund category benchmark depending on the fund | n/a    | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | 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   | 0.130  | 11.487  | 9.919   | 9.556   | 9.869   | 9.944   | 9.858   | 10.863  | 12.668  | 12.238   |
| Asia Pacific ex-Japan Equity              | MSCI AC Far East ex Japan Index  | 0.141  | 12.373  | 11.096  | 10.562  | 10.959  | 12.365  | 12.170  | 13.448  | 16.159  | 15.845   |
| Canadian Dividend & Income Equity         | S&P/TSX Equity Index & S&P/TSX Composite Dividend                                  | 0.066  | 0.066   | 0.066   | 5.709   | 7.218   | 9.002   | 9.838   | 11.863  | 14.846  | 14.326   |
| Canadian Equity                           | S&P/TSX Composite Index  | 0.064  | 6.265   | 7.068   | 7.331   | 7.768   | 8.749   | 9.363   | 11.050  | 13.591  | 13.263   |
| Canadian Equity Balanced                  | S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (50:15:35)    | 0.044  | 4.609   | 4.755   | 4.958   | 4.984   | 5.316   | 5.566   | 6.588   | 8.205   | 7.895    |
| Canadian Fixed Income                     | DEX Universe Bond Index  | 0.034  | 3.801   | 3.604   | 3.600   | 3.377   | 3.381   | 3.380   | 3.363   | 3.510   | 3.434    |
| Canadian Fixed Income Balanced            | S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (20:15:65)    | 0.033  | 4.138   | 3.916   | 3.839   | 3.566   | 3.422   | 3.408   | 3.957   | 4.799   | 4.579    |
| Canadian Focused Equity                   | S&P/TSX Composite Index & MSCI World Index (60:40)                                 | 0.071  | 6.558   | 6.359   | 6.631   | 6.961   | 7.737   | 8.308   | 9.650   | 11.753  | 11.289   |
| Canadian Focused Small/Mid Cap Equity     | S&P/TSX SmallCap Index & MSCI World Small Cap Index (60:40)                        | 0.124  | 7.206   | 8.479   | 8.604   | 9.405   | 10.850  | 11.378  | 12.616  | 15.610  | 15.176   |
| Canadian Inflation Protected Fixed Income | DEX Real Return Bond Index   | 0.047  | 7.890   | 7.475   | 8.364   | 7.901   | 8.065   | 7.677   | 8.173   | 9.276   | 8.935    |
| Canadian Long Term Fixed Income           | DEX Long Term Bond Index   | 0.071  | 7.064   | 6.889   | 6.908   | 6.511   | 6.685   | 6.483   | 6.440   | 6.848   | 6.645    |
| Canadian Money Market                     | DEX 91 Day T-Bill Index  | 0.000  | 0.127   | 0.132   | 0.132   | 0.129   | 0.123   | 0.121   | 0.123   | 0.295   | 0.406    |
| Canadian Neutral Balanced                 | S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (40:10:50)    | 0.036  | 4.039   | 4.167   | 4.264   | 4.160   | 4.272   | 4.391   | 5.229   | 6.549   | 6.291    |
| Canadian Short Term Fixed Income          | DEX Short Term Bond Index  | 0.009  | 1.515   | 1.346   | 1.327   | 1.257   | 1.273   | 1.469   | 1.541   | 1.760   | 1.740    |
| Canadian Small/Mid Cap Equity             | S&P/TSX SmallCap Index   | 0.169  | 9.525   | 12.397  | 11.954  | 12.666  | 14.094  | 14.398  | 15.729  | 19.097  | 18.690   |
| Emerging Markets Equity                   | MSCI Emerging Markets Index  | 0.143  | 7.533   | 8.105   | 8.510   | 10.211  | 11.507  | 11.645  | 13.263  | 16.280  | 15.843   |
| European Equity                           | MSCI Europe Index  | 0.130  | 11.097  | 10.461  | 10.583  | 11.009  | 11.926  | 12.945  | 13.879  | 15.324  | 14.671   |
| Financial Services Equity                 | MSCI World Financials Index  | 0.192  | 8.925   | 7.656   | 8.267   | 9.746   | 11.209  | 11.941  | 16.401  | 18.170  | 17.537   |
| Floating Rate Loan                        | S&P/LSTA U.S. Leveraged Loan 100 Index   | n/a    | 2.830   | 2.588   | 2.534   | 2.967   | 4.212   | 4.563   | 7.182   | 9.632   | 9.253    |
| Global Equity                             | MSCI World Index   | 0.108  | 9.801   | 8.409   | 8.223   | 8.155   | 8.530   | 8.985   | 10.229  | 11.624  | 11.195   |
| Global Equity Balanced                    | MSCI World Index & Citigroup WBIG Index (65:35)                                    | 0.065  | 7.221   | 6.194   | 5.977   | 5.692   | 5.605   | 5.765   | 7.008   | 7.735   | 7.643    |
| Global Fixed Income                       | Citigroup World Broad Investment Grade   | 0.069  | 3.491   | 4.649   | 4.578   | 4.650   | 5.232   | 5.957   | 7.209   | 8.765   | 9.105    |
| Global Fixed Income Balanced              | MSCI World Index & Citigroup WBIG Index (35:65)                                    | 0.046  | 5.194   | 4.861   | 4.661   | 4.352   | 4.219   | 4.435   | 5.772   | 6.508   | 6.760    |
| Global Infrastructure Equity              | Dow Jones Global TR Index  | n/a    | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a      |
| Global Neutral Balanced                   | MSCI World Index & Citigroup WBIG Index (50:50)                                    | 0.052  | 6.174   | 5.431   | 5.214   | 4.884   | 4.700   | 4.829   | 6.128   | 6.757   | 6.849    |
| Global Small/Mid Cap Equity               | MSCI World Small Cap Index   | 0.134  | 9.037   | 8.638   | 8.714   | 8.850   | 9.638   | 10.226  | 11.896  | 13.716  | 13.381   |
| Greater China Equity                      | MSCI China Index   | 0.196  | 16.398  | 15.462  | 14.900  | 15.386  | 16.394  | 15.736  | 16.668  | 20.691  | 21.292   |
| High Yield Fixed Income                   | Bank of America Merrill Lynch Global High Yield Index                              | 0.070  | 7.250   | 6.614   | 6.318   | 5.900   | 5.869   | 5.924   | 7.085   | 8.646   | 8.751    |
| International Equity                      | MSCI EAFE Index  | 0.125  | 8.943   | 8.072   | 8.435   | 9.121   | 9.685   | 10.438  | 11.615  | 13.159  | 12.620   |
| 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                                 | S&P/TSX Composite TR   | 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      |
| Preferred Share Fixed Income              | S&P/TSX Preferred Share Index  | 0.164  | 0.141   | 0.116   | 0.102   | 0.092   | 0.084   | 0.080   | 0.083   | 0.097   | 0.093    |
| 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)         | n/a    | n/a     | 10.729  | 10.106  | 11.562  | 13.004  | 13.743  | 13.624  | 16.108  | 15.285   |
| North American Equity                     | MSCI North America Index   | 0.108  | 9.220   | 8.088   | 8.196   | 7.889   | 8.141   | 8.503   | 9.831   | 11.097  | 10.793   |
| Precious Metals Equity                    | S&P/TSX Global Gold Index  | 0.524  | 31.805  | 34.164  | 34.196  | 32.364  | 31.252  | 30.803  | 31.785  | 35.760  | 34.506   |
| Real Estate Equity                        | S&P Developed Property Index   | n/a    | 19.242  | 14.668  | 13.584  | 12.391  | 12.484  | 12.365  | 15.497  | 17.908  | 17.609   |
| Retail Venture Capital                    | n/a  | n/a    | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a     | n/a      |
| 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. Equity                               | S&P 500 Index  | n/a    | 13.189  | 9.757   | 9.191   | 8.742   | 8.935   | 9.217   | 10.794  | 12.017  | 11.686   |
| U.S. Money Market                         | US 3 Month Treasury Bills CAD  | n/a    | n/a     | n/a     | 0.007   | 0.007   | 0.010   | 0.013   | 0.017   | 0.163   | 0.436    |
| U.S. Small/Mid Cap Equity                 | Russell 2000 Index   | 0.181  | 10.495  | 11.317  | 11.345  | 11.005  | 11.838  | 12.437  | 14.392  | 15.618  | 15.248   |

**Notes:**

- Data used in this table has been computed from data provided by index providers directly. For Sources and Disclaimers please go to page 19.
- Canadian Dividend & Income Equity: The S&P/TSX Equity Index was discontinued as of Dec. 21, 2012. For the month of Dec 2012 and going forward, IFIC will use the S&P/TSX Composite Dividend Index.
- U.S. Money Market: Data for US 3 Month Treasury Bills CAD has been discontinued by the Federal Reserve.

## Appendix 3: Standard Deviation – Index at Dec. 31, 2016

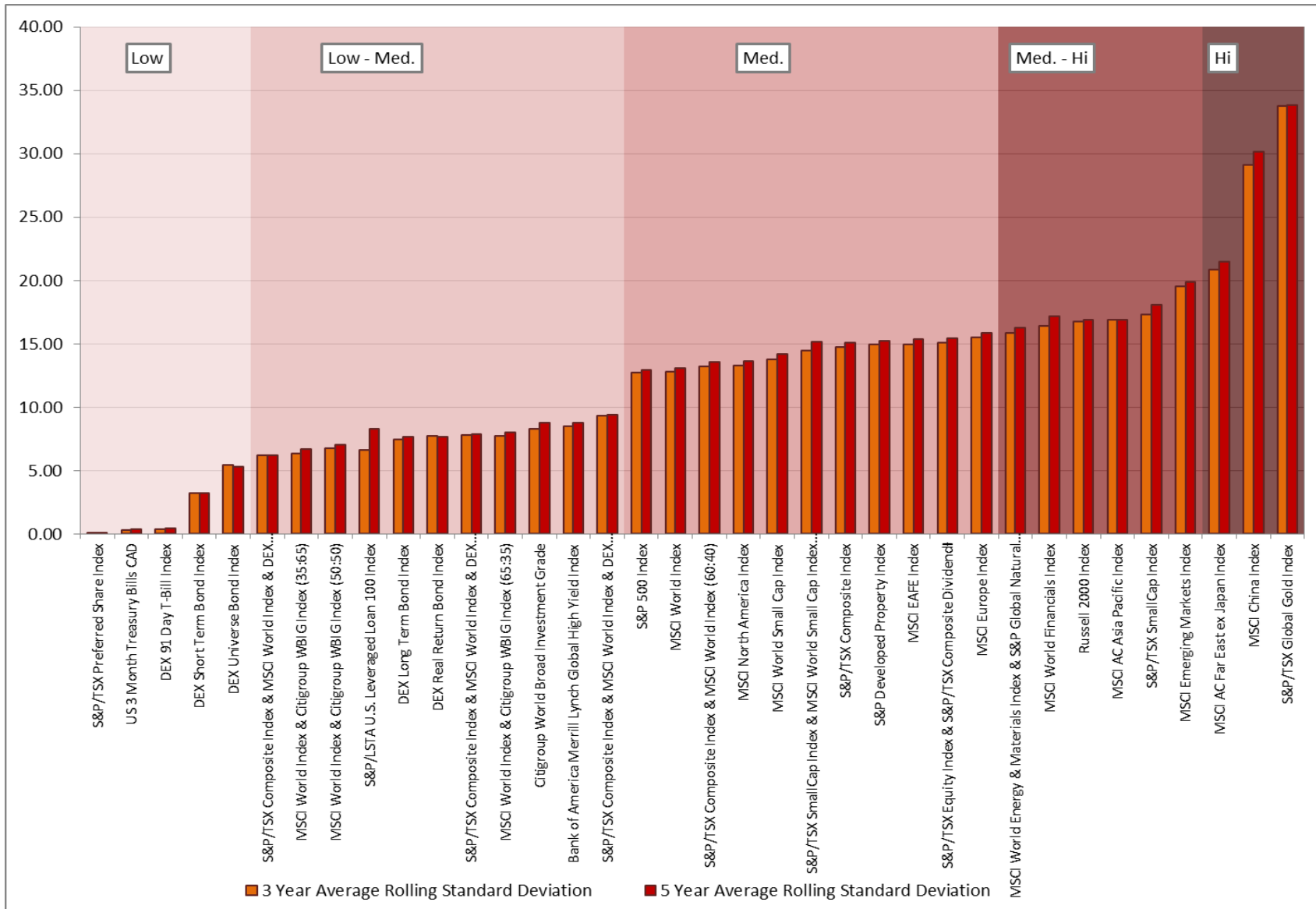
| CIFSC Category                            | Benchmark  | 3 Year Average Rolling Standard Deviation (%) | 5 Year Average Rolling Standard Deviation (%) | 3 Year Average Rolling Standard Deviation (%) | 5 Year Average Rolling Standard Deviation (%) | Number of months of data used |
|---|--|---|---|---|---|-------------------------------|
| Short-term Target Date Portfolio          | Benchmarked to the relevant balanced fund category benchmark depending on the fund | n/a   | n/a   | 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   | n/a   | n/a                           |
| 2030 Target Date Portfolio                | Benchmarked to the relevant balanced fund category benchmark depending on the fund | n/a   | n/a   | n/a   | n/a   | n/a                           |
| 2035 Target Date Portfolio                | Benchmarked to the relevant balanced fund category benchmark depending on the fund | n/a   | n/a   | n/a   | n/a   | n/a                           |
| 2035+ Target Date Portfolio               | Benchmarked to the relevant balanced fund category benchmark depending on the fund | n/a   | n/a   | n/a   | n/a   | n/a                           |
| Alternative Strategies                    | n/a  | n/a   | n/a   | n/a   | n/a   | n/a                           |
| Asia Pacific Equity                       | MSCI AC Asia Pacific Index   | 16.89680                                      | 16.89013                                      | 9.91897                                       | 9.86864                                       | 336                           |
| Asia Pacific ex-Japan Equity              | MSCI AC Far East ex Japan Index  | 20.87237                                      | 21.50787                                      | 11.09566                                      | 10.95857                                      | 336                           |
| Canadian Dividend & Income Equity         | S&P/TSX Equity Index & S&P/TSX Composite Dividend                                  | 15.11358                                      | 15.44360                                      |   |   | 695                           |
| Canadian Equity                           | S&P/TSX Composite Index  | 14.73533                                      | 15.11170                                      | 7.06825                                       | 7.76802                                       | 719                           |
| Canadian Equity Balanced                  | S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (50:15:35)    | 9.30131                                       | 9.40080                                       | 4.75480                                       | 4.98446                                       | 433                           |
| Canadian Fixed Income                     | DEX Universe Bond Index  | 5.43051                                       | 5.32039                                       | 3.60426                                       | 3.37651                                       | 433                           |
| Canadian Fixed Income Balanced            | S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (20:15:65)    | 6.20218                                       | 6.18639                                       | 3.91636                                       | 3.56648                                       | 433                           |
| Canadian Focused Equity                   | S&P/TSX Composite Index & MSCI World Index (60:40)                                 | 13.20562                                      | 13.54641                                      | 6.35872                                       | 6.96122                                       | 552                           |
| Canadian Focused Small/Mid Cap Equity     | S&P/TSX SmallCap Index & MSCI World Small Cap Index (60:40)                        | 14.49295                                      | 15.17786                                      | 8.47885                                       | 9.40533                                       | 191                           |
| Canadian Inflation Protected Fixed Income | DEX Real Return Bond Index   | 7.76001                                       | 7.70116                                       | 7.47452                                       | 7.90127                                       | 288                           |
| Canadian Long Term Fixed Income           | DEX Long Term Bond Index   | 7.49117                                       | 7.69214                                       | 6.88871                                       | 6.51139                                       | 817                           |
| Canadian Money Market                     | DEX 91 Day T-Bill Index  | 0.37079                                       | 0.46414                                       | 0.13232                                       | 0.12941                                       | 756                           |
| Canadian Neutral Balanced                 | S&P/TSX Composite Index & MSCI World Index & DEX Universe Bond Index (40:10:50)    | 7.83064                                       | 7.86717                                       | 4.16665                                       | 4.16010                                       | 433                           |
| Canadian Short Term Fixed Income          | DEX Short Term Bond Index  | 3.23588                                       | 3.19900                                       | 1.34555                                       | 1.25697                                       | 433                           |
| Canadian Small/Mid Cap Equity             | S&P/TSX SmallCap Index   | 17.30014                                      | 18.06550                                      | 12.39726                                      | 12.66576                                      | 191                           |
| Emerging Markets Equity                   | MSCI Emerging Markets Index  | 19.52696                                      | 19.86493                                      | 8.10477                                       | 10.21143                                      | 336                           |
| European Equity                           | MSCI Europe Index  | 15.50314                                      | 15.87969                                      | 10.46069                                      | 11.00871                                      | 552                           |
| Financial Services Equity                 | MSCI World Financials Index  | 16.39034                                      | 17.20758                                      | 7.65597                                       | 9.74645                                       | 252                           |
| Floating Rate Loan                        | S&P/LSTA U.S. Leveraged Loan 100 Index   | 6.59255                                       | 8.30030                                       |   |   | 167                           |
| Global Equity                             | MSCI World Index   | 12.79448                                      | 13.10781                                      | 8.40899                                       | 8.15475                                       | 552                           |
| Global Equity Balanced                    | MSCI World Index & Citigroup WBIG Index (65:35)                                    | 7.76547                                       | 7.98449                                       | 6.19366                                       | 5.69243                                       | 204                           |
| Global Fixed Income                       | Citigroup World Broad Investment Grade   | 8.26688                                       | 8.76118                                       | 4.64926                                       | 4.64954                                       | 204                           |
| Global Fixed Income Balanced              | MSCI World Index & Citigroup WBIG Index (35:65)                                    | 6.37155                                       | 6.71308                                       | 4.86136                                       | 4.35192                                       | 204                           |
| Global Infrastructure Equity              | Dow Jones Global TR Index  | n/a   | n/a   |   |   | 0                             |
| Global Neutral Balanced                   | MSCI World Index & Citigroup WBIG Index (50:50)                                    | 6.75288                                       | 7.01626                                       | 5.43113                                       | 4.88395                                       | 204                           |
| Global Small/Mid Cap Equity               | MSCI World Small Cap Index   | 13.79445                                      | 14.16733                                      | 8.63753                                       | 8.85023                                       | 204                           |
| Greater China Equity                      | MSCI China Index   | 29.10059                                      | 30.17614                                      | 15.46244                                      | 15.38621                                      | 276                           |
| High Yield Fixed Income                   | Bank of America Merrill Lynch Global High Yield Index                              | 8.47398                                       | 8.76911                                       | 6.61417                                       | 5.89997                                       | 216                           |
| International Equity                      | MSCI EAFE Index  | 14.99062                                      | 15.36536                                      | 8.07209                                       | 9.12091                                       | 552                           |
| Geographic Equity                         | n/a  | n/a   | n/a   | n/a   | n/a   | n/a                           |
| Commodity                                 | S&P/TSX Composite TR   | 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                           |
| Passive Inverse/Leveraged                 | n/a  | n/a   | n/a   | n/a   | n/a   | n/a                           |
| Preferred Share Fixed Income              | S&P/TSX Preferred Share Index  | 0.06450                                       | 0.07353                                       | 0.11622                                       | 0.09182                                       | 0                             |
| Miscellaneous - Other                     | 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                           |
| Energy Equity                             | 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                           |
| Natural Resources Equity                  | MSCI World Energy & Materials Index & S&P Global Natural Resources (60:40)         | 15.88052                                      | 16.26755                                      |   |   | 145                           |
| North American Equity                     | MSCI North America Index   | 13.31989                                      | 13.66374                                      | 8.08810                                       | 7.88903                                       | 552                           |
| Precious Metals Equity                    | S&P/TSX Global Gold Index  | 33.73971                                      | 33.80866                                      | 34.16358                                      | 32.36448                                      | 183                           |
| Real Estate Equity                        | S&P Developed Property Index   | 14.95580                                      | 15.20766                                      |   |   | 317                           |
| Retail Venture Capital                    | n/a  | n/a   | n/a   | n/a   | n/a   | n/a                           |
| Tactical Balanced                         | n/a  | n/a   | n/a   | n/a   | n/a   | n/a                           |
| U.S. Equity                               | S&P 500 Index  | 12.74098                                      | 12.94611                                      |   |   | 360                           |
| U.S. Money Market                         | US 3 Month Treasury Bills CAD  | 0.29623                                       | 0.39438                                       |   |   | 793                           |
| U.S. Small/Mid Cap Equity                 | Russell 2000 Index   | 16.73754                                      | 16.90896                                      | 11.31710                                      | 11.00464                                      | 360                           |

**Notes:**

- Data used in this table has been computed from data provided by index providers directly. For Sources and Disclaimers please go to page 19.



## Appendix 4: Standard Deviation - Benchmark (Avg Rolling 3/5 Year) at Dec. 31, 2016



**Notes:**

- Data used in this table has been computed from data provided by index providers directly. For Sources and Disclaimers please go to page 19.

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

In Example 1 and Example 2, we consider a fictional fund – the XYZ Canadian 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 Canadian Equity Fund (standard deviation)</b> | <b>Benchmark: S&amp;P / TSX Composite Index (standard deviation)</b> |
|--------|--|--|
| 1 year | 8.132  | 8.877  |
| 2 year | 7.924  | 8.718  |
| 3 year | 8.251  | 8.467  |

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’ 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: this fund has the ability to use leverage)

|         | <b>Fund: XYZ Canadian Equity Fund (standard deviation)</b> | <b>Benchmark: S&amp;P / TSX Composite Index (standard deviation)</b> |
|---------|--|--|
| 1 year  | 8.132  | 8.877  |
| 2 year  | 7.924  | 8.718  |
| 3 year  | 8.251  | 8.467  |
| 4 year  | 8.563  | 8.676  |
| 5 year  | 9.184  | 9.593  |
| 6 year  | 10.113   | 10.109   |
| 7 year  | 11.564   | 11.788   |
| 8 year  | 11.874   | 14.421   |
| 9 year  | 12.452   | 13.983   |
| 10 year | 12.213   | 13.687   |

Some fund managers may interpret the average annual standard deviation of the XYZ Canadian Equity Fund to be materially different from the benchmark index for the 7 year, 8 year, 9 year and 10 year average annual standard deviation.

In such a case, we determine XYZ Canadian Equity Fund's 3 year and 5 year rolling average standard deviation. These are compared to the ‘Rolling Averages’ SD bands presented in Appendix 1 to determine the appropriate volatility classification.

| <b>Fund: XYZ Canadian Equity Fund (3-year rolling avg standard deviation)</b> | <b>SD Bands (Appendix 1)</b> |
|---|------------------------------|
| 8.652   | Low to Medium risk           |

| <b>Fund: XYZ Canadian Equity Fund (5-year rolling avg standard deviation)</b> | <b>SD Bands (Appendix 1)</b> |
|---|------------------------------|
| 13.216  | 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 standard deviation of the fund indicates Medium risk, which is in line with the risk category of the benchmark index (i.e. Medium).

However, in this case the fund manager would assign a higher risk rating (i.e. Medium to High risk) and include the ability to use leverage 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 returns 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:

Index Data was obtained directly from Index Provider and is used with permission. IFIC calculated standard deviations based on raw data provided by the Index Providers. For specific disclaimers, please see below.

**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**

Source: MSCI. Neither MSCI nor any other party involved in or related to compiling, computing or creating the MSCI data makes any express or implied warranties or representations with respect to such data (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such data. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in or related to compiling, computing or creating the data have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages. No **further distribution or dissemination of the MSCI data is** permitted without MSCI's express written consent.

**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**

Source: PC-Bond, a business unit of TMX Group. Copyright © TMX Inc. All rights reserved. The information contained herein may not be redistributed, sold or modified or used to create any derivative work without the prior written consent of TMX Group.

**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, S&P/LSTA US Leveraged Loan 100 Index**

Source: Standard & Poors. TSX Inc.

**Index: Russell 2000 Index**

Source: Russell Investments.