

LifePath® Index 2045 Fund (BlackRock) Manulife LifePath® Index 2045 Fund (BlackRock) BlackRock Asset Management Canada Limited

December 31, 2016

Lead manager(s): Amy Whitelaw Investment style: Target Date

Investment objective: Designed for investors planning to retire in or around 2045. The objective is to maximize total

return with a risk level that may be appropriate for the fund's particular time frame.

Last meeting date: Q1 2016 Next estimated meeting date: Q1 2017

Current rating: IN GOOD STANDING

Annual fund performance (%)						
	2012	2013	2014	2015	2016	5 yrs
LifePath® Index 2045 Fund (BlackRock)	11.53	20.53	14.59	8.53	8.30	12.61
LifePath® Index 2045 Fund Benchmark (BlackRock)*	11.61	20.55	14.72	8.42	8.20	12.61
Value added (+) / lost (-)	-0.08	-0.02	-0.14	0.11	0.10	0.00
Quartile ranking (1)	1st	1st	4th	4th	3rd	1st

^{*}Effective July 1, 2016, benchmark weights for the Fund are as follows: 2.90% FTSE TMX Canada Universe Bond Index, 0.63% FTSE TMX Canada Real Return Bond Index, 22.71% S&P®/TSX® Capped Composite Index, 24.44% S&P 500® Index, 2.13% Russell 2000 Index, 16.64% MSCI EAFE Index, 4.85% MSCI Emerging Markets Index, 3.17% S&P GSCI Commodity Index, 15.81% FTSE EPRA/NAREIT Developed Index, 6.72% Dow Jones Brookfield Global Infrastructure Index

Short-term performance analysis

- In the last 12 months, the Fund produced returns that were in line with its stated benchmark.
- The Fund's objective is to track the return of its benchmark, which it has historically accomplished. There are no concerns.

Long-term performance analysis

The Fund has respected its long term tracking error guideline of +/- 50 basis points versus its stated benchmark.



Significant corporate events

Corporate

- In September 2016, Mark Wiseman joined BlackRock as Head of Global Active Equity. A Senior Managing Director, Mark also joined the Global Executive Committee and became Chairman of the BlackRock Global Investment Committee. Mark previously servied as President and Chief Executive Officer of CPP Investment Board (CPPIB).
- In September 2015, former Head of US and Canada Defined Contribution of the BlackRock LifePath Funds, Chip Castille, took on a new role as Chief Retirement Strategist for the firm. Anne Ackerley has succeeded Chip in his role on the team and has been with BlackRock for over 15 years.

Fund specific

In February 2016, BlackRock Asset Management announced that they would be implementing changes to the glide path of
the BlackRock LifePath Funds in the second quarter of 2016. These changes result in a modest increase to equity and
equity-like allocations for some of the longer-dated Funds and the removal of the discrete allocation to long duration bonds
from the portfolios.

IMS commentary

- The LifePath® Index Fund 2045 (BlackRock) is designed for participants who will retire between 2043 and 2047. The fund will reach its most conservative risk level at the end of 2044, at which time itwill hold the same asset allocation as the LifePath® Index Retirement Fund (BlackRock), which is designed to provide those who are withdrawing money from their plan with an appropriate blend of income and inflation protection. Investment may include exposures to Canadian and foreign equity, Canadian and global bonds as well as alternative asset classes.
- Based on our due diligence, we are confident that the manager has remained within the stated investment philosophy and style.
- IMS recently met with BlackRock's Head of Defined Contribution Research Matthew O'Hara who discussed the research that led to the changes in the glide path. There are no concerns with the proposed changes, the changes to the glide path are not expected to be sizable and are backed by a prolonged research effort by Fund management.

Conclusion:

 Due to the fact that 1) the Fund's asset allocation is in line with expectations (given its target date profile) and 2) the Fund has met its long term tracking error objectives, IMS continues to rate this Fund In Good Standing.

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* Sources may include, but are not limited to, Mercer MPA, Morningstar, Principia and Thomson Baseline

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⁽¹⁾ Quartile rankings are based on the underlying fund's returns.