

RBC Emerging Market Tactical Equity Total Return Index

Performance Factsheet

Index Objectives:

The RBC Emerging Market Tactical Equity Total Return Index is designed to meet or exceed risk-adjusted returns relative to the benchmark by optimizing asset allocation between Emerging Markets equities and cash. This dynamic asset allocation is implemented by observing bullish or bearish trends in Emerging Markets equities, on a monthly basis, to determine the exposure until the next monthly observation.

Index Ticker Symbols:

Bloomberg: RBCEETUT Index
Thomson Reuters: .RBCEETUT

Index Launch Date:

February 18, 2019

Index Base Date:

October 31, 2007

Asset Class:

Equity
Fixed Income (Cash)

Allocations:

MSCI Emerging Markets Futures contract
Federal Funds Rate

Last Allocation Date:

September 14, 2022

Benchmark:

MSCI EM Net Total Return USD Index
Bloomberg: M1EF Index
Thomson Reuters: .MIEF00000NUS

Liquidity:

The Index tracks equity futures and cash. The tracked futures contract averages significantly in excess of \$1bn in daily trading volume.

Availability:

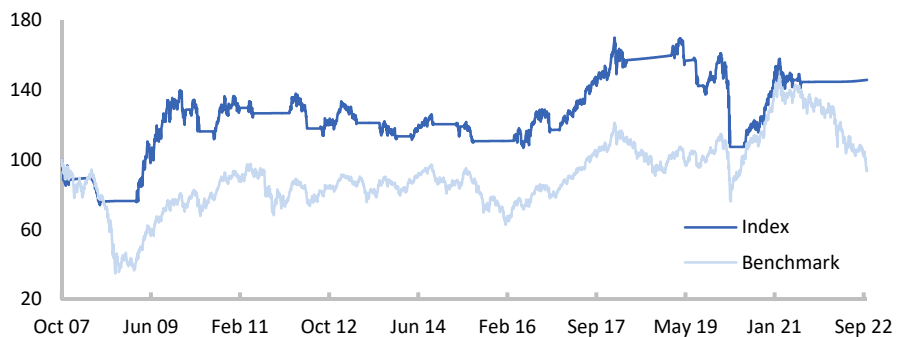
Investors cannot invest directly in the Index. The Index can be used as an underlying for various investment vehicles to provide exposure to investors.

Index Description

The Index provides exposure to either Emerging Markets equities or cash (the Federal Funds rate). This allocation determination is based on monthly observations of a pre-defined Tactical Trigger: the 100 daily moving average (100 DMA) of the iShares MSCI Emerging Markets ETF (Bloomberg: EEM US Equity; the ETF). The Index obtains exposure to Emerging Markets equities by tracking the performance of the futures contract.

On the specified monthly determination date, if the ETF is at or above its 100 DMA (a bullish trend), the Index will allocate to equity via the MSCI Emerging Markets futures contract plus the Federal Funds rate (to replicate the total return) or only to the Federal Funds rate if the ETF is below its relevant 100 DMA (a bearish trend).

Performance^{1,2} – Total Return (USD)



	Return (%) ²			Return p.a. (%)				YoY Return (%)				
	1M	3M	YTD	1Y	3Y	5Y	Base	'17	'18	'19	'20	'21
Index (USD)												
Index (I)	0.2	0.6	0.8	0.8	1.5	0.2	2.6	31.4	3.5	-2.0	-9.7	2.6
Benchmark (B)	-11.7	-11.6	-27.2	-28.1	-2.1	-1.8	-0.4	37.3	-14.6	18.4	18.3	-2.5
Variation (I) - (B)	11.9	12.1	27.9	28.9	3.5	2.0	3.0	-5.9	18.1	-20.5	-28.0	5.2

	Volatility p.a. (%) ³			Sharpe Ratio ⁴			12 Month Return		Worst Drawdown		Beta	
	1Y	5Y	Base	1Y	5Y	Base	Best	Worst	(%)	DUW ⁵	1Y	5Y
Index (USD)												
Index (I)	0.1	16.6	16.4	-0.11	0.04	0.20	82.8	-36.8	-36.9	56	0.00	0.46
Benchmark (B)	18.6	17.6	20.2	-1.46	-0.07	0.04	113.5	-61.3	-65.2	117	1.00	1.00
Variation (I) - (B)	-18.6	-1.0	-3.8	1.35	0.11	0.15	-30.6	24.6	28.4	-60	-	-

¹ Daily data from October 31, 2007 to September 30, 2022. Index re-based to 100 on October 31, 2007. Please see the final page for important information about the presentation of the performance information set forth in this document

² Source: Solactive AG, Bloomberg, RBC Capital Markets

³ Based on daily returns, annualized with a 252-day factor

⁴ Based on the average of daily excess returns against Fed Funds, annualized with a 252-day factor

⁵ Duration Under Water: number of months taken by the Index and the Benchmark to increase back to their respective previous highest level after a market decline



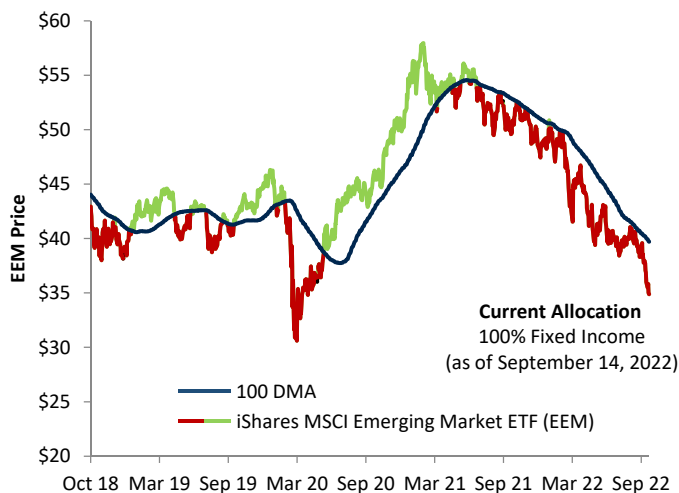
Allocation History¹ (over last 12 months)

Determination Date	Allocation Date	MSCI Emerging Markets Futures	Cash	Index Performance *	Benchmark Performance *
September 12, 2022	September 14, 2022	0%	100%	TBD**	TBD**
August 15, 2022	August 17, 2022	0%	100%	0.2%	-5.1%
July 11, 2022	July 13, 2022	0%	100%	0.2%	5.1%
June 13, 2022	June 15, 2022	0%	100%	0.1%	-4.2%
May 16, 2022	May 18, 2022	0%	100%	0.1%	-0.9%
April 11, 2022	April 13, 2022	0%	100%	0.0%	-7.5%
March 14, 2022	March 16, 2022	0%	100%	0.0%	3.7%
February 14, 2022	February 16, 2022	0%	100%	0.0%	-13.0%
January 14, 2022	January 19, 2022	0%	100%	0.0%	0.4%
December 13, 2021	December 15, 2021	0%	100%	0.0%	2.3%
November 15, 2021	November 17, 2021	0%	100%	0.0%	-5.5%
October 11, 2021	October 13, 2021	0%	100%	0.0%	2.2%

¹ Determination Date was two business days prior to Allocation Date

* Performances between current and next Allocation Date; ** To be determined on the next Allocation Date (October 19, 2022)

Allocation Snapshot (as of September 30, 2022)



Characteristics Snapshot

As of Last Determination Date (September 12, 2022)

Indicator	Closing Level	Tactical Trigger
Emerging Market (EEM)	39.58	2.1% BELOW 100 DMA

As of Month End (September 30, 2022)

Indicator	Closing Level	Distance from DMA
Emerging Market (EEM)	34.88	-12.2%

Date	Last	Next
Determination	September 12, 2022	October 17, 2022
Allocation	September 14, 2022	October 19, 2022

Monthly Returns (% , as of September 30, 2022)

Index	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2022	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%				0.8%
2021	2.9%	0.9%	-0.7%	1.1%	-0.9%	1.6%	-2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%
2020	-6.1%	-3.8%	-23.8%	0.0%	0.0%	0.1%	8.5%	2.9%	-0.8%	1.2%	9.1%	7.3%	-9.7%
2019	0.2%	1.0%	1.2%	2.4%	-6.1%	0.2%	-2.2%	-7.4%	-2.0%	4.1%	-0.2%	7.7%	-2.0%
2018	8.2%	-5.8%	0.4%	-0.2%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	3.5%
2017	2.4%	1.8%	3.4%	1.9%	2.6%	1.0%	5.7%	2.1%	0.1%	3.3%	-0.3%	3.7%	31.4%
2016	0.0%	0.0%	3.4%	0.6%	-3.9%	4.4%	5.6%	0.8%	2.9%	-1.0%	-6.7%	0.0%	5.8%

Benchmark	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2022	-1.9%	-3.0%	-2.3%	-5.6%	0.4%	-6.6%	-0.2%	0.4%	-11.7%				-27.2%
2021	3.1%	0.8%	-1.5%	2.5%	1.1%	1.3%	-6.7%	2.6%	-4.0%	1.0%	-4.1%	1.9%	-2.5%
2020	-4.7%	-5.3%	-15.4%	9.2%	0.8%	7.4%	8.9%	2.2%	-1.6%	2.1%	9.2%	7.4%	18.3%
2019	8.8%	0.2%	0.8%	2.1%	-7.3%	6.2%	-1.2%	-4.9%	1.9%	4.2%	-0.1%	7.5%	18.4%
2018	8.3%	-4.6%	-2.0%	-0.3%	-3.5%	-4.2%	2.2%	-2.7%	-0.5%	-8.7%	4.1%	-2.6%	-14.6%
2017	5.5%	3.1%	2.5%	2.2%	3.0%	1.0%	6.0%	2.2%	-0.4%	3.5%	0.2%	3.6%	37.3%
2016	-6.5%	-0.2%	13.2%	0.5%	-3.7%	4.0%	5.0%	2.5%	1.3%	0.2%	-4.6%	0.2%	11.2%



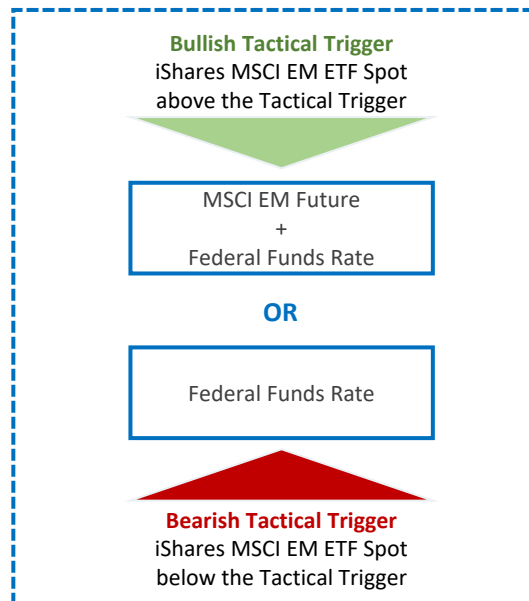
Summary of Index Methodology:

RBC Emerging Market
Tactical Equity Total Return Index

Tactical Trigger – Determined 2 Trading Days Before Allocation

100-day Moving Average
iShares MSCI EM ETF
(EEM)

Monthly Allocation – Is Tactical Trigger Bullish or Bearish?





This communication has been generated by employees of RBC Capital Markets' Global Equity Linked Products, and is not a research report or a product of RBC Capital Markets' Research Department.

This document is for informational purposes only and is not intended to set forth a final expression of the terms and conditions of any offering, and may be amended, superseded or replaced in its entirety by subsequent summaries. When making an investment decision, any prospective investor should rely solely on the relevant transaction documentation, which will contain the final terms and conditions of the transaction. The information contained herein has been compiled from sources believed to be reliable by RBC Capital Markets or any of its businesses. Neither RBC Capital Markets nor any of its businesses or representatives has undertaken any independent review or due diligence of such sources. This document shall not constitute a commitment or recommendation to enter into any transaction by any RBC entity.

All information, terms and pricing set forth herein is indicative and subject to change without notice. Any opinions expressed herein reflect our judgment at the date and time hereof and are subject to change without notice. The information contained in this document has been internally developed or taken from trade and statistical services and other sources which we deem reliable. Transactions of the type described herein may involve a high degree of risk and the value of such investments may be highly volatile. Such risks may include, without limitation, risk of adverse or unanticipated market developments, risk of issuer default and risk of illiquidity. In certain transactions, counterparties may lose their entire investment or incur an unlimited loss.

This brief statement does not purport to identify or suggest all the risks (directly or indirectly) and other significant aspects in connection with transactions of the type described herein, and investors should ensure that they fully understand the terms of the transaction, including the relevant risk factors and any legal, tax, regulatory or accounting considerations applicable to them, prior to transacting. No representation is made concerning the legal, tax, regulatory or accounting implications in any applicable jurisdiction, and we are not advising you in respect of such matters.

Accordingly you must independently determine, with your own advisors, the appropriateness for you of the transaction before transacting. RBC is acting solely in the capacity of an arm's length contractual counterparty and not in the capacity of your financial adviser or fiduciary.

RBC Capital Markets is the global brand name for the capital markets business of Royal Bank of Canada and its affiliates, including RBC Capital Markets, LLC (member FINRA, NYSE and SIPC); RBC Dominion Securities Inc. (member IIROC and CIPF); Royal Bank of Canada - Sydney Branch (ABN 86 076 940 880); RBC Capital Markets (Hong Kong) Limited (regulated by the Securities and Futures Commission of Hong Kong and the Hong Kong Monetary Authority) and RBC Europe Limited (authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority.)

Royal Bank of Canada has filed a registration statement (including a prospectus) with the SEC for the offerings to which this document relates. Before you invest, you should read those documents and the other documents relating to these offerings that Royal Bank of Canada has filed with the SEC for more complete information about us and these offerings. You may obtain these documents without cost by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, Royal Bank of Canada, any agent or any dealer participating in this offering will arrange to send you the prospectus and any related supplements if you so request by calling toll-free at 1-877-688-2301.

® Registered trademark of Royal Bank of Canada. Used under license. All rights reserved.

Important Information About the Historical Performance of the Index

The Index was launched on February 18, 2019. Accordingly, all of the information about the performance of the Index prior to that date is based on hypothetical back-tested information.

The hypothetical performance of the Index is based on criteria that have been applied retroactively with the benefit of hindsight; these criteria cannot account for all financial risk that may affect the actual performance of the Index in the future. The future performance of the Index may vary significantly from the hypothetical performance data in this document. For example, the futures contracts and ETF upon which the Index is based did not exist during all the periods shown; accordingly, we have used other related financial assets for those periods, when needed. In addition, please note that the back-tested performance of the Index set forth in this document does not reflect the deduction of any fees and charges that would be applicable to a financial instrument that references the Index.

For the full Index methodology, please visit the following link: www.solactive.com